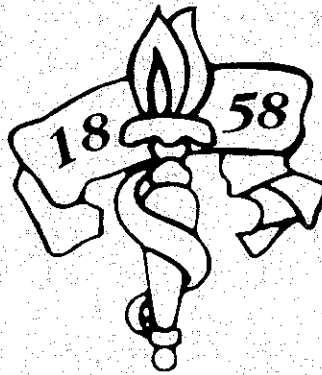


WINONA STATE UNIVERSITY

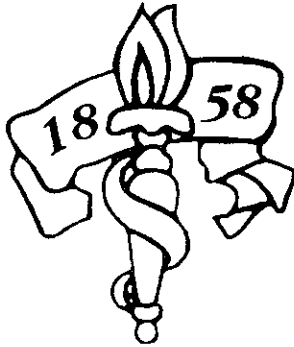
2000 - 2002



UNDERGRADUATE CATALOG

GENERAL CATALOG

2000 - 2002



WINONA

STATE UNIVERSITY

P.O. BOX 5838 • Winona, Minnesota
1-800-DIAL-WSU
(507) 457-5000

Pursuant to the Minnesota Government Data Practices Act, Minnesota Statute Section 13.32, Subdivision 3; and the Family Educational Rights and Privacy Act, 20 USC 1232g et seq. 1974, Winona State University gives notice that the following directory information will be released upon request: student name, address (permanent and local), telephone number (permanent and local), date and place of birth, major and minor fields of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, most recent previous education agency or institution attended, residence, status, date of WSU graduation, class schedule and photograph.

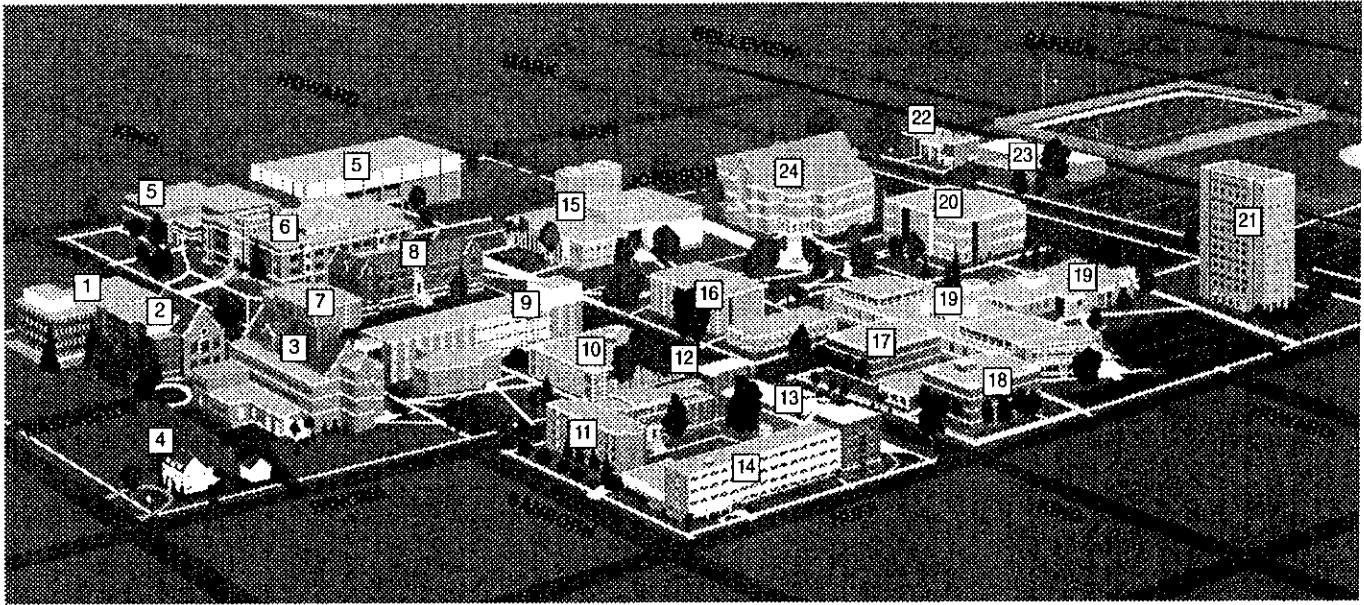
Any student who objects to the release of all or any part of the directory information on file in his or her name must notify the Registrar's Office, in writing, that he or she does not wish to have such information released. This request will be honored and all or any specified portion of the information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

The provisions of this publication are not to be regarded as an irrevocable contract between the student and WSU. 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, color, creed, religion, national origin, sex, age, marital status, status with regard to public assistance, sexual orientation, disability, or any other group or class against which discrimination is prohibited by Title IX of the Education Amendments, 1972, Minnesota Statutes Chapter 363, Section 402 of the Vietnam Era Veteran's Readjustment Assistance Act, 1974, and other applicable state and federal laws. Inquiries regarding compliance should be referred to the Affirmative Action Officer at 1-(507)-457-5008.

Visit us on the world wide web at:
<http://www.winona.msus.edu>

CAMPUS MAP



1. **Maxwell Hall**
 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 and Human Performance, and Physical Education and Recreation departments, and the facilities for the University's indoor athletic activities and events
 6. **Somsen Hall** — houses the College of Business, the departments of Accounting, Administrative Information Systems, 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, 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 and the University Honors 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 Leadership, 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, the Women's Studies Program and the Global Studies Program
 21. **Sheehan Hall** — women's residence hall
 22. **Heating Plant**
 23. **Maintenance Building**
 24. **Main Library** — contains the University's library holdings
 25. **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 with the exception of #4, Alumni House. Call (507) 457-5008 to pre-arrange accessibility.*

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ADMINISTRATION

Administration

Office of the President

Darrell W. Krueger, President
Theresa Arrick-Krueger, Affirmative Action Officer,
Human Resources Director, Sexual Harassment Officer
Dennis Martin, Director, Institutional Research/Planning

Office of Vice President for Academic Affairs

Steve Richardson, Vice President of Academic Affairs
Carol Anderson, Dean, College of Education
Richard Bazillion, Dean, Library and Information Services
Tim Gaspar, Dean, College of Nursing and Health Sciences
Kenneth Gorman, Dean, College of Business
Peter Henderson, Dean, College of Liberal Arts
Nancy Jannik, Dean, College of Science & Engineering
Russell Lohmann, Director, Rochester Center
Shelly Allen, Director, Interactive Television
Pauline Christensen, Chair, Adult, Continuing Education &
Extension and Graduate Director
Dan Eastman, Director, Residential College and Study
Abroad Program
Larry Holstad, Director, Athletics
Barbara Oertel, Director, Advising & Retention
Gregory Peterson, Director, Financial Aid
Nancy Kay Peterson, Director, Grants and Sponsored Research
Joanne Rosczyk, Director of Telecommunications and Safety
Judy Routh, Director, Audio Visual Services
Stewart Shaw, Registrar

Office of Dean of Student Affairs

Cal Winbush, Dean of Student Affairs
Vicki Decker, Director, Student Placement
John Ferden, Director, Residence Life
Richard Lande, Superintendent, Plant Operations
Terri Markos, Director, International Student Program
Diane Palm, Director, Student Health Services
Joe Reed, Director, Student Union/Student Activities

Office of Comptroller

Marie Bush, Budget Director
Karen Krause, Bookstore Director

Office of Development and University Relations

James Schmidt, Vice President for University Advancement
Richard Davis, Director Publications/Print Shop
Tom Grier, Director, Public Information
Gloria Miller, Director, Alumni Affairs
Linda Wood, Director of Major Gifts

Minnesota State College and Universities (MnSCU) Board of Trustees

Morris Anderson, Chancellor

Andrew Boss, Congressional District #4,
Legislative District #66B
2265 Como Avenue
Saint Paul, MN 55108
Term expires June 30, 2004

Nancy Brataas, Congressional District #1,
Legislative District #30B
839 10 1/2 Street SW, Rochester, MN 55902
Term expires June 30, 2002

Kathleen Caffey, Community College Student,
Congressional District #3, Legislative District #34
P.O. Box 51, 150 Medina Street, Loretto, MN 55357
Term expires June 30, 2000

Archie D. Chelseth, Congressional District #8,
Legislative District #8A
509 Chestnut Street, Cloquet, MN 55720
Term expires June 30, 2000

Mary Choate, Congressional District #3,
Legislative District #41B
5503 River Bluff Circle, Bloomington, MN 55437
Term expires June 30, 2004

Daniel G. Coborn, Congressional District #7,
Legislative District #14A
1445 East Highway 23, Bldg A, Saint Cloud, MN 56303
Term expires June 30, 2004

Dennis Dotson, Congressional District #1,
Legislative District #24A
P.O. Box 1270, Mankato, MN 56002-1270
Term expires June 30, 20002

David Erickson, Congressional District #6,
Legislative District #56A
8143 89th Street North, Mahtomedi, MN 55115
Term expires July 3, 2000

Robert O. Erickson, Vice Chair At-Large,
Congressional District #3, Legislative District #41A
8700 Walton Oaks Drive, Bloomington, MN 55438
Term expires June 30, 2002

Christine Fritsche,
Congressional District #2, Legislative District #21A
2066-235 Street, Marshall, MN 56258
Term expires June 30, 2000

Joseph Jung, Technical College Student
Congressional District #6, Legislative District #48B
750 Rice Creek Terrace, Fridley, MN 55432
Term expires June 30, 2000

Michael Nesdahl, Congressional District #2,
Legislative District #21A
State University Student Member
Southwest State University, BA 268, Marshall, MN 56258
Term expires June 30, 1999

Michael M. Vekich, Chair
Congressional District #5
Legislative District #44B
3924 Natchez Avenue South, St. Louis Park, MN
Term expires June 30, 2002

Jame Wafler, Secretary At-Large,
Congressional District #4, Legislative District #54B
116 East Old County Road C, Little Canada, MN 55117
Term expires June 30, 2000

Charles W. Williams, At-Large,
Congressional District #4, Legislative District #55A
5988 Bayberry Drive, White Bear Lake, MN 55110
Term expires June 30, 2004

UNDERGRADUATE PROGRAMS

ASSOCIATE IN ARTS

BACHELOR OF ARTS MAJORS (Non-Teaching)

Art
Communication
 Communication Studies Option
 Organizational Communication Option
Economics
English
 First Combining Option
 Second Combining Option
 Writing Option
French
German
History
Law and Society
Mass Communication
 Advertising Option
 Broadcast Option
 Journalism Option
 Photojournalism Option
 Public Relations Option
Mathematics
Music
 Liberal Arts
 Performance
Political Science
 General Option
 International Studies Option
Professional Studies
 General Option
 Aviation Maintenance Management
Option
Psychology
 Option A
 Option B
Sociology
Spanish
Theatre

BACHELOR OF ARTS MINORS (Non-Teaching)

Art
Biology
Communication Studies
Dance
Economics
English
 Creative Writing Option
 Writing Option
French
Geography
German
Global Studies
History
History of Art
Intercultural Communication
Mass Communication
Mathematics
Music
Political Science
Philosophy
Professional Studies
Psychology
Sociology
 General Option
 Gerontology Option
Spanish
Studio Art
Theatre
Women's Studies

BACHELOR OF SCIENCE MAJORS (Non-Teaching)

Accounting
Biology
 Allied Health Option
 Cell and Molecular Option
 Ecology Option
 Environmental Science Option
Business Administration
Chemistry
 Option A
 Option B: (ACS-certified)
 Environmental Science Option
Composite Materials Engineering
 Chemical Option
 Mechanical Option
Computer Science
 Option A: Computer Science
 Option B: Computer Information Systems
Cytotechnology
Exercise Science
 Athletic Training Option
 Cardiopulmonary Rehabilitation
 Work Site Health Promotion Option
Finance
 Option A
 Option B
Geoscience
 Geology Option
 Environmental Science Option
 Water Resources Management Option
Human Resource Management
Management Information Systems
Marketing
Mathematics
 Statistics Option
Medical Technology
Music
 Business Emphasis
Nursing
 Generic Option
 RN Option
Paralegal
 Option A
 Option B
Physics
 Applied Nuclear Science Option
 Electronics Option
 Physics Option
Public Administration
Recreation and Leisure Studies
 General Recreation Option
 Therapeutic Recreation Option
School and Community Health Education
 School and Community Health/Public
Administration Option
Social Work
Sociology: Criminal Justice
 Corrections Option
 Law Enforcement Option

BACHELOR OF SCIENCE MINORS (Non-Teaching)

Accounting
Airway Science/Aviation
Biochemistry
Business Administration
Business Law
Chemistry
 Option A
 Option B

Computer Science

Geoscience
International Business
Management
Management Information Systems
Marketing
Mathematics
 Statistics Option
Music
Physics
 Electronics Option
Public Administration
Training and Development

BACHELOR OF SCIENCE MAJORS (Teaching)

Art
Business
Chemistry
Communication Arts and Literature
Early Childhood Education (Birth – 3 Years)
Earth Science
French
German
K – 6 with Middle School Communication
Arts and Literature
K – 6 with Middle School Mathematics
K – 6 with Middle School Science
K – 6 with Middle School Social Studies
K – 6 with Pre-Primary
Life Science
Mathematics
Music
Physical Education
Physical Science
School and Community Health Education
Social Science/History
Spanish
Special Education

PRE-PROFESSIONAL SEQUENCES

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

LICENSURES

Developmental Adapted Physical Education
School Social Work

2000-2001 ACADEMIC CALENDAR

FALL SEMESTER - 2000-2001

Registration begins, Thursday	April 27, 2000
Deadline for applying for graduation in May 2001, Monday.....	July 24, 2000
Last day for new and former Graduate and Undergraduate students to complete application and file intent to return for Fall Semester, Monday.....	July 31, 2000
Faculty Orientation/Development, Monday, Tuesday, Wednesday, Thursday, Friday,	21,22,23,24,25, 2000
New Student Orientation/Registration, Wednesday, Thursday, Friday	August 23,24,25, 2000
Final application deadline for Arranged Classes, Internships, Independent Studies (GRADUATE and UNDERGRADUATE), Friday	Aug. 25, 2000
Day classes begin, Monday	Aug. 28, 2000
Evening classes begin, Monday	Aug. 28, 2000
Evening Class Registration - Evening Graduate and Undergraduate students ONLY, Monday, Tuesday, Wednesday, Thursday	Aug. 28,29,30,31, 2000
Last day to add on-campus classes without Blue Class Permit Forms, Thursday.....	Aug. 31, 2000
Blue Class Permit Forms needed to add on-campus classes, Friday, Tuesday	Sept. 1 & 5, 2000
Labor Day Holiday (no classes), Monday	Sept. 4, 2000
Last day to drop on-campus classes with tuition refund, Tuesday	Sept. 5, 2000
Last day to drop or add on-campus classes, Tuesday.....	Sept. 5, 2000
Faculty Development Day - Student Fall Break Day, Monday	Oct. 9, 2000
Midterm Day, (Last day for undergraduates to make up work from Spring & Summer Terms), Tuesday.....	Oct. 17, 2000
* Last day to notify the Office of Graduate Studies of intent to take Spring Semester Comprehensive Examinations, Tuesday.....	Oct. 17, 2000
Last day to withdraw from classes, Friday	Nov. 3, 2000
Veterans' Day Holiday (observed—no classes), Friday	Nov. 10, 2000
Registration for Spring Semester begins, Tuesday	Nov. 14, 2000
Thanksgiving break begins at 10:00 p.m., Tuesday.....	Nov. 21, 2000
Faculty Development Day, Wednesday	Nov. 22, 2000
Classes resume, Monday.....	Nov. 27, 2000
Deadline for applying for graduation in December 2001, Friday.....	Dec. 8, 2000
Final Examinations, Monday, Tuesday, Wednesday, Thursday,	Dec. 11,12,13,14, 2000
Fall Semester Commencement, Friday	Dec. 15, 2000
Grading Day, Saturday.....	Dec. 16, 2000
Faculty Development, Monday, Tuesday	Dec. 18,19, 2000
Grades due, 9:00 a.m., Tuesday	Dec. 19, 2000

SPRING SEMESTER - 2000-2001

Registration begins, Tuesday	Nov. 14, 2000
Deadline for applying for graduation in December 2001, Friday.....	Dec. 8, 2000
Last day for new and former Graduate and Undergraduate students to complete application and file intent to return for Spring Semester, Monday.....	Dec. 11, 2000
Faculty Development Days, Thursday, Friday.....	Jan 4,5, 2001
Final application deadline for Arranged Classes, Internships, Independent Studies, (GRADUATE and UNDERGRADUATE), Friday	Jan. 5, 2001
New Student Registration, Friday	Jan. 5, 2001
Day classes begin, Monday.....	Jan. 8, 2001
Evening classes begin, Monday.....	Jan. 8, 2001
Evening Class Registration - Evening Graduate and Undergraduate students ONLY, Monday, Tuesday, Wednesday, Thursday.....	Jan. 8,9,10,11, 2001
Last day to add on-campus classes without blue cards, Thursday.....	Jan. 11, 2001
Blue Class Permit Forms needed to add on-campus classes, Friday and Tuesday	Jan. 12 & 16, 2001
Martin Luther King Holiday (no classes), Monday	Jan. 15, 2001
Last day to drop on-campus classes with tuition refund, Tuesday	Jan. 16, 2001
Last day to drop or add on-campus classes, Tuesday.....	Jan. 16, 2001
All University Assessment Day, Tuesday	Feb. 13, 2001
Midterm Day (Last day for undergraduates to make up incompletes from Fall Semester), Thursday.....	March 1, 2001
* Last day to notify the Office of Graduate Studies of intent to take Summer Comprehensive Examinations, Thursday	March 1, 2001
Spring Break begins at 10:00 p.m., Friday	March 2, 2001
Classes resume, Monday.....	March 12, 2001
Last day to withdraw from classes, Tuesday	March 27, 2001
Registration for Fall Semester, 2000-2001 begins, Tuesday	April 10, 2001
Final Examinations, Monday, Tuesday, Wednesday, Thursday,	April 30, May 1,2,3, 2001
Spring Semester Commencement, Friday.....	May 4, 2001
Grading Day, Saturday	May 5, 2001
Faculty Development, Monday, Tuesday.....	May 7,8, 2001
Grades Due, 9:00 a.m., Tuesday	May 8, 2001

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 rescheduled. Refunds will be made to eligible students in accordance with our governing board's policy.

* Pertains to Graduate students ONLY.

In general election years, no classes may be held after 6:00 p.m. on the first Tuesday in March due to the precinct caucus.

FIRST SUMMER SESSION - 2001

Summer Registration opens, Thursday.....	March 15, 2001
Last day for new students to complete application process for First Summer Session, Monday	May 7, 2001
Last day for former students to file intent to return for First Summer Session, Monday	May 7, 2001
Application deadline for Arranged Classes, Internships, Independent Studies for Drop/Add for First Summer Session, Friday	May 18, 2001
Classes begin, Monday.....	June 4, 2001
Last day to drop on-campus classes with tuition refund, Wednesday.....	June 6, 2001
Last day to drop or add on-campus classes, Wednesday	June 6, 2001
Application deadline for Arranged Classes, Internships, Independent Studies for Second Summer Session, Monday.....	June 18, 2001
Last day to withdraw from classes, Friday.....	June 22, 2001
Fourth of July Holiday (no classes), Wednesday	July 4, 2001
Term ends, Friday.....	July 6, 2001

— Final Examinations will be held during the last scheduled class meeting. —

SECOND SUMMER SESSION - 2001

Last day for former students to file intent to return for Second Summer Session, Monday.....	June 11, 2001
Last day for new students to complete application process for Second Summer Session, Monday.....	June 11, 2001
Application deadline for Arranged Classes, Internships, Independent Studies for Second Summer Session, Monday.....	June 18, 2001
Classes begin, Monday.....	July 9, 2001
Last day to drop on-campus classes with tuition refund, Wednesday.....	July 11, 2001
Last day to drop or add on-campus classes, Wednesday.....	July 11, 2001
Last day to withdraw from classes, Friday.....	July 27, 2001
* Last day to notify the Office of Graduate Studies of intent to take Fall Comprehensive Examinations, Monday.....	July 30, 2001
Deadline for applying for graduation in May 2002, Monday.....	July 30, 2001
Term ends, Friday.....	August 10, 2001

— Final Examinations will be held during the last scheduled class meeting. —

NOTE: * Pertains to Graduate Students ONLY.

2001-2002 ACADEMIC CALENDAR

FALL SEMESTER - 2001-2002

Registration begins, Thursday	April 12, 2001
Last day for new and former Graduate and Undergraduate students to complete application and file intent to return for Fall Semester, Monday.....	July 30, 2001
Deadline for applying for graduation in May 2002, Monday	July 30, 2001
Faculty Orientation/Development, Monday, Tuesday, Wednesday, Thursday, Friday,	August 20,21,22,23,24, 2001
New Student Orientation/Registration, Wednesday, Thursday, Friday	August 22,23,24, 2001
Final application deadline for Arranged Classes, Internships, Independent Studies (GRADUATE and UNDERGRADUATE), Friday	Aug. 24, 2001
Day classes begin, Monday	Aug. 27, 2001
Evening classes begin, Monday	Aug. 27, 2001
Evening Class Registration - Evening Graduate and Undergraduate students ONLY, Monday, Tuesday, Wednesday, Thursday.....	Aug. 27,28,29,30, 2001
Last day to add on-campus classes without Blue Class Permit Forms, Thursday	Aug. 30, 2001
Blue Class Permit Forms needed to add on-campus classes, Friday, Tuesday.....	Aug. 31 & Sept. 4, 2001
Labor Day Holiday (no classes), Monday	Sept. 3, 2001
Last day to drop on-campus classes with tuition refund, Tuesday	Sept. 4, 2001
Last day to drop or add on-campus classes, Tuesday.....	Sept. 4, 2001
Faculty Development Day - Student Fall Break Day, Friday.....	Oct 5, 2001
Midterm Day, (Last day for undergraduates to make up work from Spring & Summer Terms), Tuesday	Oct. 16, 2001
* Last day to notify the Office of Graduate Studies of intent to take Spring Semester Comprehensive Examinations, Tuesday.....	Oct. 16, 2001
Last day to withdraw from classes, Friday.....	Nov. 2, 2001
Veterans' Day Holiday, (observed—no classes), Monday.....	Nov. 12, 2001
Registration for Spring Semester begins on Wednesday.....	Nov. 14, 2001
Thanksgiving break begins at 10:00 p.m., Tuesday	Nov. 20, 2001
Faculty Development Day, Wednesday	Nov. 21, 2001
Classes resume, Monday.....	Nov. 26, 2001
Deadline for applying for graduation in December 2002, Friday	Dec. 7, 2001
Final Examinations, Monday, Tuesday, Wednesday, Thursday,.....	Dec. 10,11,12,13, 2001
Fall Semester Commencement, Friday.....	Dec. 14, 2001
Grading Day, Saturday	Dec. 15, 2001
Faculty Development, Monday, Tuesday	Dec. 17,18, 2001
Grades due, 9:00 a.m., Tuesday.....	Dec. 18, 2001

SPRING SEMESTER - 2001-2002

Registration begins, Wednesday.....	Nov. 14, 2001
Deadline for applying for graduation in December 2002, Friday	Dec. 7, 2001
Last day for new and former Graduate and Undergraduate students to complete application and file intent to return for Spring Semester, Monday.....	Dec. 10, 2001
Faculty Development Days, Thursday, Friday.....	Jan 3,4, 2002
Final application deadline for Arranged Classes, Internships, Independent Studies, (GRADUATE and UNDERGRADUATE), Friday.....	Jan. 4, 2002
New Student Registration, Friday	Jan. 4, 2002
Day classes begin, Monday.....	Jan.7, 2002
Evening classes begin, Monday.....	Jan.7, 2002
Evening Class Registration - Evening Graduate and Undergraduate students ONLY, Monday, Tuesday, Wednesday, Thursday.....	Jan. 7,8,9,10, 2002
Last day to add on-campus classes without blue cards, Thursday	Jan. 10, 2002
Blue Class Permit Forms needed to add on-campus classes, Friday & Monday	Jan. 11 & 14, 2002
Last day to drop on-campus classes with tuition refund, Monday.....	Jan. 14, 2002
Last day to drop or add on-campus classes, Monday.....	Jan. 14, 2002
Martin Luther King Holiday (no classes), Monday.....	Jan. 21, 2002
All University Assessment Day, Tuesday.....	Feb. 12, 2002
Midterm Day (Last day for undergraduates to make up incompletes from Fall Semester), Thursday	Feb. 28, 2002
* Last day to notify the Office of Graduate Studies of intent to take Summer Comprehensive Examinations, Thursday.....	Feb. 28, 2002
Spring Break begins at 10:00 p.m., Friday.....	March 1, 2002
Classes resume, Monday.....	March 11, 2002
Last day to withdraw from classes, Tuesday.....	March 26, 2002
Registration for Fall Semester, 2002 begins, Tuesday	April 9, 2002
Final Examinations, Monday, Tuesday, Wednesday, Thursday.....	April 29,30, May 1,2, 2002
Spring Semester Commencement, Friday.....	May 3, 2002
Grading Day, Saturday	May 4, 2002
Faculty Development, Monday, Tuesday.....	May 6,7, 2002
Grades Due, 9:00 a.m, Tuesday	May 7, 2002

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 rescheduled. Refunds will be made to eligible students in accordance with our governing board's policy.

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In general election years, no classes may be held after 6:00 p.m. on the first Tuesday in March due to the precinct caucus.

FIRST SUMMER SESSION - 2002

Summer Registration opens, Wednesday.....	March 13, 2002
Last day for new students to complete application process for First Summer Session, Monday	May 6, 2002
Last day for former students to file intent to return for First Summer Session, Monday	May 6, 2002
Application deadline for Arranged Classes, Internships, Independent Studies for Drop/Add for First Summer Session, Friday.....	May 17, 2002
Classes begin, Monday.....	June 3, 2002
Last day to drop on-campus classes with tuition refund, Wednesday.....	June 5, 2002
Last day to drop or add on-campus classes, Wednesday	June 5, 2002
Application deadline for Arranged Classes, Internships, Independent Studies for Second Summer Session, Monday	June 17, 2002
Last day to withdraw from classes, Friday.....	June 21, 2002
Fourth of July Holiday (no classes), Thursday.....	July 4, 2002
Term ends, Friday.....	July 5, 2002

— Final Examinations will be held during the last scheduled class meeting. —

SECOND SUMMER SESSION - 2002

Last day for former students to file intent to return for Second Summer Session, Monday.....	June 10, 2002
Last day for new students to complete application process for Second Summer Session, Monday.....	June 10, 2002
Application deadline for Arranged Classes, Internships, Independent Studies for Second Summer Session, Monday.....	June 17, 2002
Classes begin, Monday.....	July 8, 2002
Last day to drop on-campus classes with tuition refund, Wednesday.....	July 10, 2002
Last day to drop or add on-campus classes, Wednesday	July 10, 2002
Last day to withdraw from classes, Friday.....	July 26, 2002
* Last day to notify the Office of Graduate Studies of intent to take Fall Comprehensive Examinations, Monday	July 29, 2002
Deadline for applying for graduation in May 2003, Monday.....	July 29, 2002
Term ends, Friday.....	August 9, 2002

— Final Examinations will be held during the last scheduled class meeting. —

NOTE: * Pertains to Graduate Students ONLY.

WINONA STATE UNIVERSITY

Winona State University, established Sept. 3, 1860, as the first teacher preparation institution west of the Mississippi River, is one of seven state universities that are part of the 53-member Minnesota State Colleges and Universities system (MnSCU). The University has three campuses: its original, main campus and a Residential College are located in the city of Winona; a non-residential campus is located in Rochester, Minn., 45 miles to the west.

Winona (population: 29,000) is nestled among the bluffs of the beautiful Hiawatha Valley on the banks of the Mississippi River – one of the most scenic areas in Minnesota. Students have convenient access to shopping, recreational activities and community resources. Additional cultural opportunities are available in LaCrosse, Wis. (30 miles away) Rochester (45 miles away) and in the Twin Cities (120 miles away).

Winona is also home to three institutions of higher learning: WSU, Saint Mary's University and Minnesota State College: Southeast Technical. WSU cooperates with these area institutions, as well as institutions throughout the MnSCU system, to enrich the educational and cultural opportunities for students at all institutions by sharing their programs and resources.

WSU's Rochester Center is an example of the sharing characteristics of Minnesota institutions. The Center is housed in the same facility as the Rochester Community and Technical College. ITV and computing connections link the Center to Winona sites, and Winona students can avail themselves of cultural opportunities in Rochester.

Mission

The mission of Winona State University is to educate and enlighten our citizenry at a distinctive institution: a community of learners dedicated to improving our world.

Located in the beautiful bluff country of the Mississippi River Valley, the Winona campus is largely residential and primarily serves a traditional student age population, while the Rochester campus serves primarily non-traditional students. The Institute for Lifelong Education, headquartered on the Rochester campus, meets the needs of the non-traditional student on each campus and provides the structure for outreach activities compatible with the mission of WSU. Commonly-held principles help Winona State University prepare undergraduate and graduate students on both campuses. We value differences and work collaboratively, continuing a legacy of a century-and-a-half of service.

We are an exemplary arts and sciences institution with select professional and graduate programs anchored in a general education core. As a mid-sized public university, we are committed to retaining small class sizes and to challenging students by maintaining rigorous academic standards. Faculty and administration are involved with students, facilitate cooperative and active learning, provide prompt respect our students' diverse talents and ways of knowing. Faculty are dedicated to creating an optimal learning environment for students by using contemporary technology and by building learning communities which help students maximize their post-graduation successes. Students acquire the disciplinary expertise enabling them to pursue careers or enter graduate or professional schools. They learn the value of aesthetics and ethical integrity, along with the importance of becoming community leaders and furthering the public good.

Winona State University recognizes that many of the learning experiences of college occur outside the classroom. It therefore is committed to building and maintaining a caring community. On both campuses, community members strive for amicable relationships based on shared values and an affirmation of the principle of freedom of speech within an atmosphere of civility and mutual respect. Governed by collective bargaining agreements and guided by principled leadership, we respect diversity and collaborate to resolve issues that affect us all. We celebrate our common successes and our distinctive heritage.

We are committed to measuring results against self-defined and national standards. Through this ongoing assessment, one in which students, faculty, and staff participate, we will improve continuously and establish accountability for results. Thus, we shall reaffirm Winona State University's social contract to provide educational benefits to the people of Minnesota, the nation, and the world.

Goals of the University

WSU is dedicated to the following goals:

* Student Success:

All WSU students will graduate possessing the skills, capacities and talents required for high performance in subsequent endeavors by offering undergraduate programs and degrees which provide direct entry into graduate programs or employment opportunities that require significant educational preparation.

* Student Satisfaction:

WSU students and alumni will report high levels of satisfaction with their experience at WSU. WSU will provide for the education, personal and social development of students through effective academic advising and counseling, and through high quality cultural, recreational and extra-curricular programs.

* General Education:

All WSU students will have a solid foundation in general education. WSU will provide a comprehensive base of liberal studies as the foundation for university degrees in the arts, letter, and sciences as well as offering specialized professional, technological and occupational degrees.

* Faculty and Staff Development:

WSU will develop the human resources to accomplish the goals of the University by supporting a commitment to research and to scholarly and creative activities which enhance instructional programs and teaching excellence.

* Partnership Development:

WSU graduates will meet or exceed the expectations of the citizens, businesses, and communities that we serve.

WSU will

— Provide pre-professional sequences that are coordinated with professional programs at other universities.

— Maintain a special commitment to lifelong learning by meeting off-campus instruction and continuing educational needs of the citizens of the service region.

— Provide public service to the region and serve as a cultural center and a source of problem-solving expertise.

— Assume leadership in consortia relationship 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.

* Technology:

There will be a seamless integration of technology into the academy at all levels.

* Enrollment:

WSU will effectively manage enrollment to meet the needs of the University. WSU will provide educational opportunities for all individuals including minorities, the disadvantaged, handicapped, and non-traditional students.

* Assessment:

WSU will evaluate all programs to meet the needs of a changing educational and technical environment.

Expectations

WSU is committed to a policy of continuous quality enhancement. As evidence of this commitment, the University has developed the following statement of expectations:

WSU's mission is to serve the broad educational needs of people living in the region and others attracted to its complement of high-quality programs. The University is committed to preserving, extending and disseminating knowledge. Through this commit-

ment, 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 WSU's programs and services.

WSU has a rich heritage of providing an educational setting in which 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 established 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 others.

WSU students are expected to be dedicated to:

1. Active learning: WSU students are expected to be actively involved in the teaching-learning process, committed to applying their learning experience to activities beyond the classroom and making 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 faculty and staff members. Additionally, 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, multi-cultural 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: WSU faculty plan and organize courses using instructional methods and materials which promote learning and personal growth for their students. WSU faculty have high expectations for themselves and 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 help attract and maintain a highly skilled teaching faculty dedicated to teaching, research and service. Additionally, they support faculty enrichment activities which contribute to the quality of students' learning experiences.
2. Student recruitment and support: WSU administration and staff are dedicated to recruiting highly qualified students who can contribute to the academic excellence of the University. Administration supports academic advising and support services that increase the quality of the students' educational experiences.
3. Creation of a stimulating learning environment: The administration and staff are 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 contributes to a cooperative/collegial decision-making process. Such a process ensures the appropriate participation of faculty and students in instructional governance and fosters respect among the constituent groups.
5. Promoting excellence: WSU administration is dedicated to carrying forth a leadership role in developing concern for excellence throughout the university community. The administration articulates the support for excellence to all constituencies.

Accreditation and Membership

WSU is accredited for undergraduate and graduate programs by the North Central Association of Colleges and Secondary Schools. In addition, the Education Program is 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 Chemistry Department's program 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; and the Composite Materials Engineering Program is accredited by the Accrediting Board for Engineering and Technology.

WSU also is a member of the American Association of Colleges for Teacher Education, the American Council on Education, the Midwest Association of Graduate Schools, the American Assembly of Collegiate Schools of Business and the National Association Schools of Music (NASM).

Campus Facilities

The main Winona State University campus provides students ample facilities for educational activities that combine traditional charm with modern convenience. Highlighting the educational facilities is the newly constructed university library with capacity for 1600 power/data connections, spaced every 15 feet throughout the building. The library contains 800,000 volumes including books, bound periodicals and microfilm, electronic classrooms, study rooms and lounge areas.

Stark Hall, dedicated in September of 1992, houses the unique undergraduate Composite Materials Engineering Program and the accredited Nursing Program as well as elements of Biology and other programs.

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 for the University's 14 athletic teams (five men's teams and nine women's teams).

The University Center (Kryzsko Commons) is home to student lounges, dining facilities, a 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, the University also provides students with comfortable, satisfying living accommodations. WSU 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 Residential College, housed in Lourdes Hall, offers students both housing and a unique educational opportunity. The Residential College's general mission is "to provide an enhanced learning environment for highly motivated students 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 by developing 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, WSU is able to create an atmosphere of collaborative learning. This is accomplished, in part, through a required First-Year Experience Seminar during the fall semester which focuses on critical thinking as well as financial support for banquets, speaker series, world forum dinners and floor activities.

Academic Programs

WSU offers more than 80 academic programs through 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

All programs are offered by highly qualified faculty in an environment committed to a love of learning and student service. Approximately 400 faculty dedicate themselves to delivering rigorous academic programs while maintaining a 'small school closeness' to individual students.

Adult, Continuing Education and Extension

WSU offers a wide range of learning experiences and opportunities 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 also may 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, Somsen Hall, WSU, Winona, MN 55987; (507) 457-5080 or 1-800-242-8978.

WSU-Rochester

Center General Information

WSU has had a strong commitment to students in the Rochester area for 80 years. The WSU-Rochester Center serves approximately 2,000 students.

WSU, along with the University of Minnesota and Rochester Community and Technical College, have combined to create the University Center at Rochester (UCR). The Center opened in 1993 and is equipped with state-of-the-art technology for interactive television and computer systems that link UCR students with main campuses and the world.

WSU has a formal 2 + 2 program with RCTC leading to 10 baccalaureate degrees. There are also six master's degrees offered by WSU in Rochester.

WSU cooperates with the University of Minnesota in offering a master's degree in teaching leadership and cooperates with Mayo Clinic in offering a master's degree in nurse anesthesia.

Location and Community

Olmsted County has a population of over 100,000 people. It is home to 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 WSU. WSU cooperates with both IBM and Mayo Clinic for specialized classes in computer science and the health professions.

WSU-Rochester is part of the University Center at Rochester, located at U.S. Highway 14 and 30th Ave. SE.

Degrees/Programs

Undergraduate Programs (2 + 2)

WSU-Rochester cooperates with Rochester Community and Technical College to offer complete educational programs to the area. Through the 2 + 2 program, students can complete 10 baccalaureate degree programs by transferring lower-division credits from RCTC and completing upper-level courses at WSU-Rochester. Students can also complete numerous undergraduate minors and six graduate degrees within 13 different graduate programs - all at the Rochester campus of WSU.

Undergraduate Programs

- Accounting
- Business Administration
- Computer Information Systems
- Computer Science
- K - 6 with Middle School Communication Arts and Literature
- K - 6 with Middle School Social Studies
- Nursing
- Professional Studies
- Psychology
- Social Work
- Sociology

Graduate Programs

- Master of Science in Counselor Education
- Community Counseling
- Elementary School Counseling
- Secondary School Counseling
- Professional Development
- Master of Science in Nursing:
 - Advanced Practice Nursing Major
 - Adult/Family Nurse Practitioner
 - Clinical Nurse Specialist
 - Nurse Administrator
 - Nurse Educator
 - Collaborative Master's Program with University of Minnesota with emphasis in Public/Psych/Mental Health Nursing
- Master of Science in Education
- 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 Special Education Department. These programs can be taken at the undergraduate and 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, WSU is administering graduate courses in engineering and computer science. All NTU classes are taught through satellite delivery, and the courses originate from over 35 participating universities.

Non-Credit Programs

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

Adult Entry Program

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

Faculty

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

Student Services

Counseling

Counseling services are available through WSU-Rochester. Staff members are professional counselors with extensive academic experience in counseling.

Career Services

Career Services staff schedule appointment dates on the Rochester campus during the academic year for individual advising. Appointments can be made by calling Student Services at 285-7100.

In addition you may register on line with Career Services to access announcements of employment and internship opportunities, career search information, and to create on-line resume for candidate referral to potential employers via the World Wide Web.

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 when you apply for admission. Representatives from the WSU Financial Aid Office are available at WSU-Rochester via video conferencing. Preliminary information is available at WSU-Rochester.

Joint WSU/RCTC Services

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

Computer Facilities

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

Library

WSU-Rochester's library holdings are integrated into UCR's Goddard Library. This arrangement provides students with an extensive resource of reference and research material. Library holdings number over 57,000 volumes. There is an overnight courier service to WSU's Library for articles and books, which gives WSU-Rochester students 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 at the University Center in Rochester any time. For more information about programs and services, call (507) 285-7100.

Student Disclosure Policy

Attention UCR students: Winona State University shares administrative tasks and other functions with Rochester Community and Technical College and the University of Minnesota at the University Center Rochester campus. Educational records of students taking classes at the UCR campus may be made available to employees of these other two institutions while the student is attending the UCR campus if access is necessary for the employee to provide services to the student.

DEGREES AND PROGRAMS

Four-Year Undergraduate

Bachelor of Arts

Art
Communication Studies
Economics
English
French
German
Law & Society
Mass Communication
Mathematics
Music
Political Science
Professional Studies
Psychology
Sociology
Spanish
Theatre Arts

Bachelor of Science

Accounting
Art (Teaching)
Biology
Business Administration
Business (Teaching)
Chemistry
Chemistry (Teaching)
Communication Arts and Literature (Teaching)
Composite Materials Engineering
Computer Science
Cytotechnology
Early Childhood (Birth - Grade 3)
Earth Science (Teaching)
Environmental Science
Exercise Science
Finance
French (Teaching)
Geoscience
German (Teaching)
Human Resource Management
K - 6 with Middle School Communication Arts and Literature
K - 6 with Middle School Mathematics
K - 6 with Middle School Science
K - 6 with Middle School Social Studies
K - 6 with Pre-Primary
Life Science (Teaching)

Management Information Systems
Marketing
Mathematics
Mathematics (Teaching)
Mathematics: Statistics
Medical Technology
Music
Music (Teaching)
Nursing
Paralegal
Physical Education (Teaching)
Physical Science (Teaching)
Physics
Public Administration
Recreational and Leisure Studies
School and Community Health Education
School and Community Health Education (Teaching)
Social Science: History (Teaching)
Social Work
Sociology: Criminal Justice
Spanish (Teaching)
Special Education (Teaching)

Two-Year Undergraduate Associate of Arts

Special Licensure Programs

(Graduate and Undergraduate)
Developmental/Adapted Physical Education
Emotional/Behavioral Disorders
(Graduate only - in cooperation with U of M)
Learning Disabilities
Mental Impairment
Minnesota School Social Worker Level I

Pre-Professional Sequences

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

ADMISSION INFORMATION

Students can apply for admission to either semester during the academic year. All admissions material must be submitted and received in the Admissions Office one month before the first day of registration for any semester.

A \$20 non-refundable application fee must accompany all new applications.

The ACT and the SAT are considered for admission decisions regarding those students coming directly from high school or who do not have a class rank. The ACT is required for enrollment (registration) to assist in placement and advising.

Students still can be considered for admission even if they haven't graduated from high school if they have 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 before enrolling in an English composition or Mathematics course. Exempt are transfer students who have credit for college-level English and/or Mathematics. Placement tests are offered regularly before all pre-registration and mass registration periods. The Advising and Retention Center has information on specific dates, times and locations of exams.

Entering students must have a medical examination from their own physician and provide proof of immunization against measles, rubella, mumps, diphtheria and tetanus. The University supplies forms for this purpose.

High School Preparation Requirements

The following high school curriculum must be completed in grades 9-12 if a student is seeking admission to Winona State University:

- 4 years of English (includes composition, literature and speech)
- 3 years of Math including 2 years of algebra and 1 year of Geometry
- 3 years of Science including 1 year of Biology and 1 year of either Chemistry or Physics. All courses should include laboratory experiences.
- 3 years of Social Studies including 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

WSU requires students applying for admission to meet certain entrance requirements. No one is denied admission because of race, color, disability, sex or national origin.

Distinctive Admission

Students are admitted with distinction if they rank in the upper 15 percent of their high school graduating class and have ACT scores of 26 or above or SAT scores of 1100 or above and have completed the 16 units of high school preparation requirements.

University Admission

Students are admitted if they rank in the top 50 percent of their high school graduating class or they have ACT scores of 21 or above or SAT scores of 1000 or above and have completed the 16 units of high school preparation requirements.

Special Admission

First-year applicants coming directly from high school who do not meet 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, students may request the Director of Admissions to schedule a review of their application for admission.

Application Procedure

(for students coming directly from high school)

- Complete an application form.
- Return the completed application with a \$20 non-refundable fee.
- Request that the student's official high school transcript be forwarded to the Office of Admissions; the transcript should include high school rank and admission test score.

An alternate application procedure for students coming directly from high school is ACT-APP. Students coming directly from high school who achieve appropriate scores on the ACT and indicate WSU (2162) as a choice are sent an application form. After receiving the ACT test scores, the University advises you of your admissions status, and requests the \$20 application fee and high school transcript.

Other means of obtaining information about WSU and/or applying to WSU can be found by viewing various electronic sources:

1. World Wide Web: www.winona.msus.edu
Students will find the Viewbook, a request for more information and an electronic application.
2. College View
Students can observe WSU on an interactive CD-ROM if their high school participates with College View. Students also can request more information, as well as apply electronically, through College View.

Early Admission

Students may be considered as applicants if they currently are enrolled in high school and have demonstrated an unusually high ability and/or achievement and they're recommended by a high school counselor or principal. Students must have completed the 10th grade before they are eligible for consideration. If they are a high school junior, they must be in the top 15 percent of their class or an ACT of 26 or higher. If they are a senior, they must be in the top 25 percent of their class or an ACT of 25 or higher. WSU participates in the Post-Secondary Enrollment Options Program.

International Students

Students must satisfy all WSU application procedures if they are not U.S. citizens. Students who are not U.S. citizens are 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 also must 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. The English test determines the appropriate English placement.

In addition to official academic credentials and the TOEFL score, students must present proof of financial responsibility for the full course of study. The University provides specific financial support forms for this purpose. The University also requires that all financial obligations - including tuition, fees, room and board - be paid when students register.

The financial support statement is extremely important because very little financial aid is available to students who are not U.S. citizens, and immigration regulations prohibit these students from getting a job outside the campus community. In view of the increasing cost of education and unstable conditions around the world, WSU does not assume responsibility for emergency situations which can arise while students are attending the University.

Students also are required to have health insurance and if they don't have a health insurance policy, they are required to purchase one through the University.

Although the deadline for submitting admissions material is one month before the first day of registration for any semester, the Admissions Office encourages students who are not U.S. citizens to complete the application process three months before the first day of registration for the semester in which studies are to begin. Submitting application material earlier allows the application to be processed correctly and lets University officials more effectively plan the required orientation programs for international students.

International students interested in obtaining more information about the University or wanting 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 technical colleges, community colleges and universities are working to make transfer easier. Students can help make it much easier if they PLAN AHEAD, ASK QUESTIONS and USE PATHWAYS created by transfer agreements.

Preparing for Transfer

Those students who currently are enrolled in a college or university should:

1. Discuss their plans with the campus transfer specialist - Room 106, Somsen Hall.
2. Call or visit their intended transfer college. The students should get the following materials and information:
 - college catalog
 - transfer brochure
 - information about admissions criteria and 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 about financial aid (how to apply and by what date)
3. After reviewing the materials, make an appointment to visit with an advisor/counselor in the college or program you would like to enter. Be sure to ask about course transfer and admission criteria.

Students who are not currently enrolled in a college or university might begin by meeting with a transfer specialist or an admission officer at their intended transfer college.

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 the sending and receiving institution can affect the transfer of earned credits.
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 goes toward graduation requirements. Baccalaureate degree programs usually count credits in three categories: general education, major/minor courses and prerequisites, and electives. The key question is, 'Will earned credits fulfill requirements of the chosen degree or program?'
4. If students change their career goal or major, they might not be able to complete all degree requirements within the usual number of graduation credits.

Applying for Transfer Admission

1. Students should complete transfer application and \$20 application fee, as early as they can before the deadline (one month prior to the semester in which students wish to begin).
2. Students should request an official transcript from every institution they have attended. Students also might be required to provide a high school transcript or GED test scores. Most colleges do not make an admission decision until all the required documents are on file.
3. An evaluation of credits that will transfer is enclosed with the acceptance letter. The written evaluation tells students what courses transfer and what courses did not transfer. How the courses specifically meet degree requirements may not be decided until students arrive for orientation or have declared a major.
4. Students with questions about the evaluation should call the Office of Admissions and ask to speak with a transfer specialist. Ask why judgments were made about specific courses. Many concerns can be eliminated if you understand why decisions were made. You can appeal if you are not satisfied. See 'Your Rights as a Transfer Student' below.

Rights as a Transfer Student

Students have the right to:

1. A clear, understandable statement of an institution's transfer policy.
2. A credit review and an explanation of why credits were or were not accepted.
3. A copy of the formal appeals process. Usually the appeals procedure consists of:
 - Completing an appeals form. Students are encouraged to attach supplemental information to reviewers such as a syllabus, a course description or a reading list.
 - A department or committee reviews the appeals form.
 - Students receive notification, in writing, of the committee's decision.
 - Students then have the option of appealing the decision to the Vice President of Academic Affairs in Somsen 211.
4. A review of students' eligibility for financial aid or scholarships may be requested.

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

Transfer Students to WSU

The following information applies to students who are transferring from a community college or a four-year college with regional accreditation for college-parallel courses:

1. Students are admitted if they have completed 24 transferable academic semester hours and have a cumulative 2.40 GPA for all colleges attended.
2. Students may be considered for admission to WSU if they have completed 24 transferable academic semester hours or fewer and have a cumulative GPA of 2.00 to 2.39 for all colleges attended. If this is the case, students must visit campus and interview with a transfer specialist. Students are required to provide a high school transcript so an evaluation can be made as to high school preparation requirements, class rank and admission test scores. If students fall within this category, they should meet the admission requirements for students coming directly from high school. Should admission be offered, it will be on a space-available basis.
3. Students also may be considered for admission by special

petition if they are a transfer student who doesn't meet any of the above requirements because of special and unique circumstances. 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, students may request a review by the Director of Admissions.

Some departments have higher standards for admission into 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 about these standards.

Students having earned credits in other colleges (including institutions in the MnSCU system) which are members of the North Central Association of Colleges and Schools or corresponding regional accrediting associations can receive credit to the extent that completed courses can be applied to the chosen curriculum. Students 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 and socially 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. Students should request the registrar at each college attended to send an official transcript directly to the Office of Admissions, Winona State University. Students are subject to suspension if they fail to comply with the transcript requirement and they are inadvertently admitted to the university.

General Education Transfer Policy

Students transferring to WSU with an AA degree awarded by a Minnesota Community College or having met the Minnesota Transfer Curriculum awarded by MnSCU have their general education requirements waived except where special departmental requirements exist.

Students transferring to WSU with an associate degree (i.e. A.S. or A.A. S.) from an accredited Minnesota community college, non-Minnesota 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 40 semester credits in liberal studies as defined by WSU. Those 40 credits must include at least six credits each in the humanities, the natural sciences and the social sciences (as defined by WSU) and must include coursework equivalent to the courses required in the basic skills: English composition, speech or oral communication, mathematics and physical education.

Students with an associate degree that meet all the above requirements, WSU waives the Different Culture and Allied Studies requirements in general education.

All WSU general education requirements are waived, except where special departmental requirements exist, for students transferring to WSU from any Minnesota institution participating in the Minnesota Transfer Curriculum and they have completed that school's general education requirements. Students' former schools must certify, on the official transcript, the completion of its general education program.

Students transferring to WSU with an associate degree but who have deficiencies (i.e. they have fewer than 40 credits in liberal studies or fewer than 6 credits each in the humanities, natural sciences and social sciences), can take WSU general education courses to eliminate the deficiencies. If students qualify for this particular transfer policy, they must check for official sanction with the Registrar's Office after they've completed the defined 40 credits of liberal studies. If they are enrolled in off-campus programs, they should consult with their advisor about these requirements.

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

Most credits earned at a community or junior college may be accepted in transfer (remedial classes are not transferable); however, to earn a bachelor's degree, 64 semester credits must be taken from a four-year institution. If students have a total of 64 semester credits earned at a community or junior college, any credits exceeding the 64 semester credits from courses at a community or junior college are not counted toward the 128 required credits. However, it is not necessary to take the corresponding required course at WSU. Transferred credits should have at least a 'C' grade to transfer.

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

Procedures (transfer)

1. Students should obtain transfer application forms from the Admissions Office.
2. Students should submit the completed application along with a \$20 non-refundable application fee (if they have never attended WSU and paid the fee previously).
3. Students should submit official transcripts from all colleges, vocational colleges or universities attended. High school transcripts may be required if fewer than 24 semester credits were earned.

Returning Students

WSU students who have not attended WSU for one semester or more (summer excluded) are classified as 'Returning' students.

Returning students must complete the Intent to Return Application, which students can get in the Registrar's Office. The Registrar's Office then evaluates their record for possible re-admission.

Students are considered returning transfer students if they attend another college or university (summer excluded), and they must apply as returning transfer students. Official transcripts are required for all college/university attendance.

Returning transfer students must complete the WSU Application for Transfer and Returning Transfer Admission, a form they can obtain in the Admissions Office. The Admissions Office evaluates the transcripts for possible admission.

Returning students who have been academically suspended should refer to the 'Suspension Policy' in the Academic section of this catalog about re-admission guidelines.

Undergraduate Special Students

Students are classified as undergraduate specials if they are taking undergraduate courses for enrichment, general interest, to transfer to another school or they have no intention of earning a degree at WSU. If students are in this category, they must: (1) file an Undergraduate Special Enrollment Form; (2) submit a \$20 non-refundable application fee (if they have never attended WSU and paid the fee previously); (3) submit transcripts of previous college work or Statement of Good Standing for those students wanting to transfer credits to their 'home' university or college.

Admissions decisions for undergraduate specials are based on the same standards established for students coming directly from high school and transfer students.

Post-Baccalaureate Students

Students are classified as post-baccalaureate students if they have a baccalaureate degree and they are taking additional undergraduate courses to satisfy a second major, minor or certificate. If students are in this category, they must: (1) file a Post-Baccalaureate Application Form in the Admissions Office; (2) submit a \$20 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 lets adults who are not seeking a degree take undergraduate WSU classes on campus without going through the formal admission procedure. To participate in the program, students must be a high school graduate (and be out of high school for at least one year) and/or have five years work experience. A maximum of 6 credits can be taken per semester and a maximum of 12 credits can be transferred to a degree program.

The program opens the University's doors to persons in the community desiring courses for general interest, professional enhancement or personal enrichment. Contact the Adult, Continuing Education and Extension Department Somsen Hall, Room 109, WSU, 1-507-457-5080 for more information.

Technical College Students

Students should contact the Admissions Office if they are interested in transferring credits from technical colleges.

WSU will accept a 16-credit general elective package of college-level 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 technical classes that apply to a program of study. Students can obtain a special form to facilitate the process.

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

Veterans' Assistance

WSU is approved by the State Approving Agency for Veterans Training. Eligibility certificates should be presented to the Veterans Assistance Office, Somsen 106, when students enroll.

Procedures:

1. Students' application for veterans' benefits can be submitted through the county Veterans Service Office or through WSU. Students must submit with the application a certified copy of their DD-214 Form or a Notice of Basic Eligibility.
2. Students should submit both copies of their Certificate of Eligibility for WSU when they apply for admission.
3. Enrollment is certified only after students present their DD-214 Form to the Veterans Office (after they have been admitted to the University). Enrollment for full-time students is normally for the academic year. Summer sessions and/or workshops are separate enrollment periods. The date of students' enrollment is based on the school calendar, workshop dates or contract periods. Note: A mixture of graduate and undergraduate credits is 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 students' satisfactory progress in an approved course and their conduct. Payments are released upon certification furnished by the school. Students must notify the Registrar's Office and the Veterans Assistance Office when they complete a course, drop a course or their course of training is interrupted.
6. Veterans with Dependents: The Veterans Administration requires students to submit certified copies of marriage certificates, birth certificates and/or adoption papers for their

dependents before they can receive payments based on their marriage and dependents. They are paid a single rate until these documents are on file with the VA. The WSU Veterans Assistance Office and the county Vets Services Officer can help expedite this procedure.

7. Re-enrollment: Students can re-enroll without a new Certificate of Eligibility. Notify the Office of Admissions Veterans Assistance Office.
8. Academic Load: Full-time training requires 12 s.h. of undergraduate credit or 9 s.h. of graduate credit. Three-fourths time training requires 9 s.h. of undergraduate credit or 7-8 s.h. of graduate credit. Half-time training requires 6-8 s.h. undergraduate credit or 6 s.h. of graduate credit.
9. Tutorial assistance: This program provides tutors to help students overcome a deficiency in any subject required for the satisfactory pursuit of an educational objective. It is available to Vietnam-era vets. See the Veterans Office for detailed information.
10. Credit for military schools: Service schools and training are evaluated according to the recommendations of the American Council on Education's Guide to the Evaluation of Educational Experience in the Armed Services when students present an official DD-214 Form to the Office of Admissions.
11. Waiver of physical education activity requirements: This requirement is waived if students have been on active duty for more than one year and they are pursuing a non-teaching degree. They must provide the Admissions Office with an official copy of their DD-214.

Credit or Advanced Placement by Examination

All departments offer advanced placement credit to qualified students who achieve satisfactory scores of 3 or above on Advanced Placement Tests. For specific details, consult the Office of Admissions.

Students can be granted advanced standing of up to 24 hours of credit if they successfully complete the general examination of the College Level Examination Program (CLEP). Credits are granted for the following courses: Sociology 150, Psychology 210, Political Science 120, Marketing 315, Management 315, Economics 201 and Mathematics 120. Many departments also accept credit for successful completion of CLEP subject examinations.

Correspondence Courses

WSU does not offer correspondence courses. The University accepts some correspondence work toward a degree.

Campus Visits

Anyone interested in WSU is welcome to visit the WSU campus at any time. There are student-conducted tours, when school is in session, at 9 a.m. and 1 p.m. Monday through Friday. The tours begin in the Admissions Office, Somsen Hall, Room 106. Tours also are offered at 10 a.m. on selected Saturdays from October through March (except holidays). Summer tours also are available.

For more information, materials and/or inquiries, contact:
Winona State University - Office of Admissions
P. O. Box 5838
Winona, MN 55987-5838

Or Call: Toll Free: 1-800 DIAL WSU or (507) 457-5100

Or Visit the WSU World Wide Web Site at:
<http://www.winona.msus.edu>

FINANCIAL INFORMATION

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

A non-refundable fee of \$20 is required with any Application for Admission. Students are not subject to this fee if they have been admitted to WSU and paid the \$20.

Undergraduate tuition for full time students (12-18 credits) for Winona campus and the ACEED campus will be billed at a flat rate. All full time Wisconsin residents will be billed at the flat rate. Rochester campus classes will be charged on a per credit basis (except for Wisconsin residents). All Graduate courses will be charged on a per credit basis.

Estimated Tuition

Estimated Flat Rate Tuition Per Semester

RESIDENCY LEVEL	2000-2001 TUITION	2001-2002 TUITION
Minnesota Undergraduate	\$1,370.00	\$1,410.00
Wisconsin Undergraduate	\$1,355.00	\$1,395.00
North Dakota Undergraduate	\$1,370.00	\$1,410.00
South Dakota Undergraduate	\$1,375.00	\$1,415.00
Midwest Compact Undergraduate	\$	\$
Non Resident Undergraduate	\$3,055.00	\$3,115.00

Regular Academic Year

	2000-2001 Tuition Per Semester Credit Hour	2001-2002 Tuition Per Semester Credit Hour
Undergraduate - on-campus and extension courses:		
Resident	\$90.95	\$93.70
Non-Resident	\$203.70	\$209.80

Graduate - on campus and extension:

Resident	\$139.65	\$143.85
Non-Resident	\$220.55	\$227.15

Summer Session:	Summer 2001	Summer 2002
Undergraduate:		
Resident	\$90.95	\$93.70
Non-Resident	\$203.70	\$209.80
Graduate:		
Resident	\$139.65	\$143.85
Non-Resident	\$220.55	\$227.15

Estimated Textbooks

Textbooks will average about \$200.00 per term. Books can be purchased at the WSU Bookstore or other locations.

Estimated Fees

All fees are subject to change.

Student Life Fee

The Student Life 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 student senate, university clubs, and the Winonan. The Student Life Fee is \$3.60 per credit hour..\$43.20 maximum per term.

Athletics Fee

The Athletics 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. The Athletics Fee is \$2.75 per credit hour...\$33.00 maximum per term.

Health Service Fee

The Health Service Fee is assessed to all students attending classes through the Winona 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. The Health Service Fee is \$2.25 per credit hour \$27.00 maximum per term.

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 \$5.90 per credit hour..\$94.40 maximum per term.

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 33 cents per credit hour.

Technology Fee

The Technology 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 \$3.90 per credit hour.. \$54.60 maximum per term.

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 per year and paid in the fall term.

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.

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 \$30.00.

Students are expected to pay all accounts to the University when they are due. Due dates are published in the quarterly class sched-

ule. 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 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 Registrar's Office, first floor Somsen Hall. Students dropping classes must inform the Registrar's Office using the official drop procedures. Students who withdraw from the University or who drop one or more credits will receive a tuition refund according to the following schedules:

If a student's 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.

Terms at least 10 weeks in length:

Withdraw Day	Withdrawing	Credit Drops
Up to and including 6th class day of term or 1 day after 1st class session whichever is later	100%	100%
7th through 10th class day of term	75%	None
11th through 15th class day of term	50%	None
16th through 20th class day of term	25%	None
After 20th class day of term	None	None

Terms 3 to 10 weeks in length:

Withdraw Day	Withdrawing	Credit Drops
Up to and including 3rd class day of term or 1 day after 1st class session whichever is later	100%	100%
4th and 5th class day of term	100%	None
6th through 10th class day of term	50%	None
After 10th class day of term	None	None

Terms of less than 3 weeks:

Withdraw Day	Withdrawing	Credit Drops
Up to and including 1 day after 1st class session	100%	100%
After 1 day after 1st class session	None	None

Enrollment for a single 1, 2, or 3 day session or less:

Withdraw Day	Withdrawing	Credit Drops
Prior to session beginning	100%	100%
After session has begun	None	None

Estimated Room and Board

Payments for residence hall services and meal services are made each semester. The following cost estimates include meals and a telephone in each room:

- Normal occupancy in a double room: \$1,690 to \$1,760
- Guest rate (per night): \$10 to \$15
- Textbooks costs average about \$280 per term.

Estimated Total Minimum Expenses for Undergraduate Students

	1998-1999 Resident Per Semester	1998-1999 Non-Resident Per Semester	1999-2000 Resident Per Semester	1999-2000 Non-Resident Per Semester
Tuition (16 semester hours)	\$1,370.00	\$3,055.00	\$1,410.00	\$3,115.00
Fees	\$258.00	\$258.00	\$265.00	\$265.00
Residence Halls - Board and Room	\$1,715.00	\$1,715.00	\$1,715.00	\$1,715.00
Total Average Student	\$3,343.00	\$5,028.00	\$3,390.00	\$5,095.00

Resident Status

As a state-assisted institution, WSU's primary function is making higher education available to residents of Minnesota. A higher tuition rate, therefore, is charged to residents of other states or nations.

You can get information about regulations and criteria that determine your residence status in the Admissions Office, Somsen Hall, Room 106.

If you initially are classified as a non-resident but you believe you have achieved residency, you can take action to change your status by filing a State of Residence form with the Admissions Office.

Wisconsin/North Dakota/South Dakota

Tuition Reciprocity

Anyone that is an undergraduate or graduate student and lives in Wisconsin, North Dakota and/or South Dakota can submit the Student Application for Resident Fee Status form, which provides you with a tuition rate similar to what your home state charges. All high schools in Wisconsin, North Dakota and South Dakota can provide you with the necessary form or you can get it in the WSU Admissions Office. Approval is granted for one year and is effective as long as you are enrolled each semester (summer sessions are excluded). You must re-apply for reciprocity tuition if you leave WSU for more than the academic year.

Midwest Student Exchange Program Kansas/Michigan/Missouri/Nebraska

Your tuition rate is 150% of the resident rate if you're enrolled at WSU and you live in Kansas, Michigan, Missouri or Nebraska. The rate represents a typical savings of over \$2,000 per year for undergraduate students.

Student Financial Aid

You can get advice and counsel about your long- and short-term plans for financing your education in the Student Financial Aid Office. If you are entering WSU for the first time or you're transferring, you can contact the Director of Financial Aid for information about loans, scholarships, grants and part-time employment. The director's office is in Somsen Hall, Room 108, (507) 457-5090.

In general, financial aid administered by the University is awarded after you meet eligibility criteria and you have established need. You must be enrolled or accepted for admission as a regular student in an eligible academic program for the purpose of earning a degree, be in good academic standing and maintain satisfactory academic progress to be considered for financial aid.

Usually awards are made for one academic year and are disbursed at the beginning of each semester.

Application Procedure

You should complete a Free Application for Federal Student Aid (FAFSA), using information from your completed tax return and submit it as soon as possible after Jan. 1. Awards are made as soon as possible after admission to the University. Certain programs have limited funding, while others are entitlement programs and have funds available throughout the year.

You can get a FAFSA from any high school counselor or it is available in the WSU Student Financial Aid Office.

Minimum Standards of Satisfactory Progress for Financial Aid Recipients

Federal regulations require that anyone receiving financial aid be in good academic standing and maintain satisfactory academic progress. The requirement is intended to encourage a recipient to advance steadily toward completing a degree. You must meet the minimum requirements outlined in the Standards of Satisfactory Progress (which you receive when you are awarded financial aid) to continue receiving your aid.

Employment

You can work up to 20 hours each week and earn a portion of your college expenses under the Federal Work Study Program, a program in which you can participate if you demonstrate financial need. The program pays you minimum wage or more, and you're paid twice a month. Most of the Federal Work Study Program jobs are located on-campus, but you also can work for off-campus, non-profit organizations or agencies.

You can participate in the State Work Study Program if you're a Minnesota resident. You must demonstrate financial need to be eligible for the program. You are paid minimum wage or more, and like the federal program, you can work on- or off-campus.

WSU Academic Scholarships

The WSU Admissions Office can provide students with information about WSU academic scholarships.

Outstanding Academic Honors Awards: This \$2,500 award recognizes outstanding academic achievement in high school and is available to any first-year student coming to WSU directly from high school. It is renewable the first 8 semesters for a total of \$10,000 if the student maintains a cumulative GPA of 3.50 while attending WSU continuously as a full-time student and completing at least 12 credits per semester. A student is eligible if he or she is in the top 5% of his or her graduating class and has an ACT composite of 32 or greater. Awards are based on the date the student is accepted for admission to the University, so students are encouraged to apply for admission early. If a student receives the award, the student is required to live on-campus during the student's first two years unless the student is living with a parent or guardian. First-priority awards are made in early November.

WSU Foundation Board Scholarships: The WSU Foundation Board annually awards scholarships of \$2,000 to four students coming to WSU directly from high school 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 determined from a review of essays submitted to the WSU Foundation Board. The scholarship is renewable the first 8 semesters for a total of \$8,000 if the student maintains a cumulative GPA of 3.50 while attending WSU continuously as a full-time student and completing at least 12 credits per semester. Awards are based on the date which the student is accepted for admission into the University, so students are encouraged to apply for admission early. If a student receives the award, the student is required to live on-campus during the student's first two years unless the student is living with a parent or guardian.

President's Honor Scholarships: The President's Honor Scholarships are funded by WSU and the following endowment funds: the Rivet, the Walker, the Garvin, the Class of 1942, Neville/Valley Wholesalers, Merchants National Bank, Schwab and Guy Maxwell, Hazel Baab, Thomas Stark, and Dare White. The scholarships are awarded to first-year students coming to WSU directly from high school in the following categories:

\$1,500 Top 5% of graduating class & ACT 28 or SAT 1240

\$1,000 Top 10% of graduating class & ACT 27 or SAT 1210

\$ 750 Top 15% of graduating class & ACT 26 or SAT 1170

The scholarships are available for the first 8 semesters if the student continuously attends WSU as a full-time student, maintains a 3.50 cumulative GPA and completes at least 12 credits per semester. If a student receives a President's Honor Scholarship, the student is required to live on-campus during the student's first two years unless the student is living with a parent or guardian. Early application for admission is encouraged.

Academic Awards: \$300 - \$500 awards are made to students graduating from high schools in Minnesota and Wisconsin. 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 the top half of class are eligible. Awards are based upon date of acceptance to the University, therefore, early application to WSU is encouraged.

Transfer Honor Scholarships: Students can apply for a Transfer Honor Scholarship if they are transferring to WSU and have a minimum GPA of 3.35 on a 4.00 point scale. Application forms are available in the WSU Transfer Office.

Scholarships Awarded by WSU Departments

WSU academic departments select the recipients of the following scholarships of \$100 to \$2,000. These scholarships are all WSU Foundation scholarships. You can apply for these scholarships in any given year at WSU, but you must be in good academic standing and majoring in the areas specified in the list below. You should contact the designated departments for information about application procedures and deadlines if you're interested in any of them. The application process begins early in the spring semester.

WSU Foundation Scholarships

(The name of the scholarship is followed by the name of the department in which it's offered).

Amanda Aarestad - Elementary Education
Accounting Alumni and Friends - Accounting
Accounting Faculty-Accounting
Erwin F. Bachler - Mathematics
Greg & Linda Ballard - Economics/Finance
Agnes M. Bard String Quartet - Music
Eric Barr - Liberal Arts
Benchmark Electronics - Engineering
Benchmark Electronics - Statistics
Steven Berg - Biology
Jeanette & Arnold Bergler - Elementary Education
Wesley Bovinet - Marketing
Brach & Brock Confectioners - Business
Adolph Bremer Award - Mass Comm/Communications
Ray Brooks Award - Mass Communications
James & Margaret Browning - Health/Nursing
Ervin G. Bublitz - Sociology/Criminal Justice
John Bublitz - Criminal Justice/Law Enforcement
Buhler Memorial - Computer Science
Rosalie Burton - Nursing
John Cady - Economics/Finance
Glenn A. & Bruce Carlson - Elementary Education
Casini - Biology
Chemistry Alumni - Chemistry
Cichanowski-Logelin - Computer Science
Lorraine N. Cieminski - Sociology/Social Work
Class of 43/Mehus - Education
College of Business - College of Business
Computer Science Alumni - Computer Science
Larry Connell Memorial - Sociology/Social Work
Paul Corrigan Award - Mass Communication
Richard C. Coughlin - Liberal Arts
Coulee Rock Club - Geology
Cytec Fiberite - Engineering
Bud Dahlen Memorial - Counselor Education
Delta Sigma Pi - College of Business
Kathryn Dunlay - Elementary Education
Charles & Emma Durr and Florence Schroth - Education
Edstrom/Hal & Jo/Leonard - Music

Phyllis Ehmke - Nursing
 Gordon Elliott - Liberal Arts
 Farmers Insurance Group - Alternatives between College of Business and College of Liberal Arts
 Gary Evans - Communication Studies
 Mary June Fischer-Elder - HPER
 Ruth Severud Fish - Art Education
 Glenn Fishbaugh - Education
 Joseph E. Foegen - Business Administration (Human Resources/General)
 Frankard Family - Airway Science
 Edith V. Fraser - Education
 Cal Fremling - Biology
 John & Edna Fuller - Elementary Education
 Leslie Gage - Elementary Education
 Geology Alumni - Geology
 Goldentongue Award - English
 Goodson Manufacturing Company - Nursing
 William H. Gresham Memorial - Nursing
 Cecil Gronvall - Chemistry
 Warren Haesly - Pre-Med
 George E. Hajicek - Social Work
 Fred & Mary Heyer Memorial - Music
 Tom Hirsch Award - Mass Communication (Photojournalism)
 Home Federal Savings Bank - Nursing
 Ray Houtz - Chemistry
 Helen Imm - Dean of Business
 Lorena Jacobson - Mathematics Education
 Harry R. Jackson Memorial - Football
 Frederick Jederman - History
 Jestus Family - Education
 Kappa Delta Pi/Ehlinger - Education
 Alice & Howard Keller - Science Dean
 Tammy Kempf - Nursing
 Kendell Corporation - English/Liberal Arts
 E.L. King - Art Education
 Neva King - Elementary Education
 Bertha/Karl Koehler - Athletic Director
 Ruth Kottschade - Elementary Education
 Gil Kraft - Education
 Kujak Transport - Management/Marketing
 Martin & Joyce Laako - Biology
 Langston Nursing - Nursing
 Terry L. Lierman - Political Science
 Long Distance/USA-Sprint - Liberal Arts
 Warren & Dorothy Marley - BEOSA/Business Administration
 Thomas Mauszycki - Art
 Luther McCown - HHP/PER
 Mr. & Mrs. Frank G. Mertens - Nursing Health Science
 Midtown Foods IGA - Men's Baseball
 Randolph W. Miller - Exercise Science
 Miller Brothers Engineering - Engineering
 Lenore Coborn Minne - Elementary Education
 Minnesota Society of CPAs - Accounting
 Madeo & Rosemary Molinari - Football
 Paul Molinari - Football
 Marjorie Moravec - Women's basketball
 Judy & Spencer Munkel - Education/Math
 MVTL Chemistry - Chemistry
 Fern Nelson - Education
 Mary Lucille Nelson - Nursing
 Jennifer Nesler - Sociology
 Daniel Nordquist Memorial - Biology/Chemistry
 Richard & Janet Northup - Education
 Norwest Bank, Winona - Business
 Nursing Alumni - Nursing
 Dean of Nursing - Nursing
 Fred & Sandra Olson - Mathematics/Statistics
 James Opsahl - Biology
 Hugh Ouellette - Computer Science/Rochester Center
 Marvin & Muriel Palecek - History
 Paralegal Alumni - Paralegal
 Doris Pennell - Elementary Education
 Laurel Pennock - Elementary Education
 Hosea Perry - Sociology/Social Work
 Political Science Awards - Political Science
 Dorothy Purtzer Memorial - Nursing

Mary Caldwell Rusche - Elementary Education
 Reidelberger - Theatre and Dance
 James R. & Nancy M. Reynolds - Sociology (B.A.)
 Verlie Sather - Education
 Kevin Scholsky - Engineering/Chemistry
 Jerry Seeman - Football
 Senior Citizens Center - Nursing/Health Science
 Alma Smith - AIS/English
 Society of Plastics Engineers - Engineering
 Leodegario Soriano - Psychology
 Ralph Spencer - HHP/PER
 Jean Talbot - HPER
 Bertha Tenhoff - Education
 William P. Theurer - Business Administration
 Frank Tolmie - Education
 Walgreen's - Computer Science
 Walter F. Wadewitz - Science/Math Education
 Watkins Art Gallery - Art
 Watkins Inc. - Liberal Arts
 Watlow Winona Inc. - Engineering
 Dorothy & Maynard Weber - Art
 Max Weber - Art
 Windsor Financial Group - Sociology
 Winona Clinic Ltd. - Nursing
 Winona Daily News - Mass Communication
 Duane & Edwina Wolfe - Mathematics Education
 Zamboni Family Endowment - Liberal Arts

Other WSU Foundation Scholarships

The Karen Sweetland Scholarship and the Kaiser Scholarship, each for \$500, are awarded to a WSU junior or senior with a minimum cumulative GPA of 3.75.

The Doris Riede Scholarship for \$500 is available to a sophomore with a minimum cumulative GPA of 3.75.

The Harland & Pauline Knight Scholarship is available to a junior or senior education major with a minimum cumulative GPA of 3.75.

WSU Faculty/Support Staff Scholarships are awarded each year. Students must have completed a minimum of 96 semester credits and have a cumulative GPA of 3.75.

The Erika K. Scholarship is awarded to non-traditional (minimum age of 24) women students based on need and a minimum cumulative GPA of 2.5.

The WSU Foundation Outstanding Merit Scholarship for \$5,000 is awarded annually to a sophomore, junior or senior with a minimum GPA of 3.2.

The Dr. Jack Kane Scholarship is available to students who live in a WSU residence hall and are on a 14-or-more meal plan.

Pepsi offers scholarships to students who participate in a varsity intercollegiate program and are on a meal plan.

Evelyn Stephan Scholarship available to entering Freshman; highest rank graduating Honors senior from Plainview, Minnesota.

For more information regarding these WSU Foundation scholarships, including application dates and specific requirements contact Catherine Sieracki, Scholarship Administrator, Public Information Office, Phelps B18, phone 457-5198.

WinCraft Inc. offers a \$500 scholarship, giving priority to WinCraft employees and their relatives. Winona Athletic Club offers scholarships, giving priority to members and their relatives. Contact Catherine Seracki in the Public Relations Office, Phelps B18, 457-5198 for more information.

DCM/Arnold Family Scholarship is available to WSU students whose parent is a full-time employee of DCM Tech. Apply at DCM Tech, Human Resources Office.

Treasures Galore Scholarships are awarded each year to non-traditional students who enroll at WSU. You may apply at Treasures Galore in Winona.

The Ervin C. Bublitz Scholarship and the Lewis Schoenng Memorial Scholarship are each available to members of McKinley United Methodist Church in Winona. Recipients must be high school graduates and have been accepted as incoming freshman at WSU. Contact McKinley United Methodist Church to apply.

La Crosse Teachers Credit Union awards scholarships to members and their relatives. Applications are available at TCU.

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

The WSU Foundation annually awards the Karen Sweetland Scholarship and the Kaiser Scholarship, each for \$500, to a WSU junior or senior with a minimum cumulative GPA of 3.75. You must send a letter of application to the WSU Foundation. A WSU Faculty/Support Staff Scholarship also is awarded each year as a general scholarship. WinCraft Inc. offers a \$500 scholarship, giving priority to WinCraft employees or their relatives. Contact the University Relations and Development Office, 210 Somsen, for more information.

Treasures Galore Scholarships are awarded each year to non-traditional students who enroll at WSU. You apply at Treasures Galore in Winona.

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

Other Scholarships

Sylvia Bremer Award - CTA/English
Forensics Scholarship (New Students) - Forensics
Glen Galligan Scholarship - HPER
Blanche Hunter Scholarship - Nursing
Helen L. Klein Scholarship - Education
Raymond Thielan Scholarship - History

Scholarships Awarded By the WSU Financial Aid Office

The Financial Aid Office selects recipients for the scholarships listed below. Awards are based on demonstrated financial need and academic standing. The only application required or accepted for these scholarships is the free Application for Student Financial Aid. Anyone submitting the FAFSA is considered for the scholarships based on your test scores and/or your cumulative GPA, along with your financial need. Scholarship amounts vary. You should file a financial aid application as soon as possible after Jan. 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
William Markle
Arthur & Viola (Zeller) Mattson
Beulah Norton
W. W. Norton
Rotary Club
70th Year
Stephen H. Somsen
Louise Sutherland
Ella Tucker
Winona County Bicentennial
World War Memorial

Additional Scholarships Alumni Society Scholarships

The WSU Alumni Society awards six \$500 scholarships to first-year students coming directly from high school who are relatives of alumni. You must be a child, a grandchild, a brother, a sister or a ward of a WSU graduate. You also must be endorsed by your relative and a high school counselor. You can get application forms in the WSU Alumni Office. Applications must be submitted by March 1.

Resident Tuition Scholarships

The Resident Tuition Scholarship (RTS) awards resident tuition rates to new, non-resident, non-reciprocity first-year students. The scholarship can be viewed as a \$3,300 annual award and is renewable the first 8 semesters if you maintain a cumulative GPA of 3.00 while attending WSU continuously as a full-time student and complete at least 12 credits per semester.

You automatically are awarded an RTS when the University accepts you if you rank in the top 15% of your graduating class or have an ACT of 25, an SAT total of 1100. Early application to WSU is encouraged.

Talent Scholarships (Fine Arts and Athletics)

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

You also should contact the appropriate head coach to be considered for athletic scholarships if you're interested in intercollegiate sports.

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 you if you meet the following criteria:

1. You are currently enrolled at WSU;
2. You have a minimum cumulative GPA of 2.50;
3. You earn 12 credits each semester; and
4. You participate in at least one cultural diversity or multi-cultural event each semester.

Talented Minority Scholarship (\$2,000)

WSU awards this scholarship for the recruitment of academically talented minority students. You must meet the following criteria to be eligible for the scholarship:

1. You are high school senior admitted to WSU with an ACT composite score of 25 or better;
2. You are enrolled full-time (earn at least 12 credits each semester) for renewal;
3. You have earned a minimum cumulative GPA of 3.00 at the end of each academic year for renewal;
4. You participate in at least one cultural diversity or multi-cultural event each semester.

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

This scholarship is allocated to WSU for the recruitment and retention of minority students. You must meet the following criteria to be eligible for the scholarship:

1. You are a regular admit at WSU and have a composite ACT score of 21 or better (for incoming first-year students) or a minimum cumulative GPA of 2.50 (for incoming transfer students);
2. You are in good academic standing (earn at least 12 credits each semester and maintain a minimum cumulative GPA of 2.50 (for returning students);
3. You participate in at least one cultural diversity or multi-cultural event each semester.

Additional Financial Assistance

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

3M MECA program in St. Paul, Minnesota

- \$2,000 scholarship
- \$550 per week for a 13-week summer internship
- Must have minimum cumulative GPA of 2.50

Mayo Medical Center Summer Internship in Rochester, Minnesota

- \$3,000 stipend
- \$400 scholarship (disbursement of \$200 per semester)
- Must have minimum cumulative GPA of 2.80
- Major must be related to careers or positions available within Mayo Medical Center

Nellie Stone Johnson Scholarship

- \$1,000
- Union affiliation of a relative
- A written statement regarding personal goals
- Two letters of recommendation

Other Programs

Among the other programs available at WSU are:

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

Contact the Cultural Diversity Coordinator at (507) 457-5595 if you have any questions or concerns.

Scholarships and grants of \$100-\$2,000 also are available to qualified minority students new to WSU. The awards are renewable each year if you maintain a minimum cumulative GPA of 2.50 and complete a minimum of 12 credits per semester. March 1 is the priority application deadline. You can get applications from the Cultural Diversity Office, 121 Kryzsko Commons, (507) 457-5595.

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. You can find directories for these scholarship sources 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. You can get information about eligibility criteria and application procedures from any high school counselor or from the WSU Financial Aid Office.

Post-Secondary Child Care Program: The State of Minnesota provides funding for child care to you if you meet certain income guidelines, you are a Minnesota resident and you're not receiving MFIP. Contact the WSU Financial Aid Office for more information.

Federal Supplemental Educational Opportunity Grant: A federal grant available to undergraduate students who are eligible for a Pell Grant and demonstrate exceptional need.

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

Bureau of Indian Affairs Grant: Grants are available to students with one-fourth or more Indian blood. You can get more information and application forms by contacting the agency or area office serving your tribal group.

Rehabilitation Services: Students with a disability may qualify for Rehabilitation Benefits that would help defray college costs. You should contact your 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 doesn't begin until after you leave school, and the loan may be partially canceled if you obtain employment in certain areas according to the terms in the promissory note.

Subsidized Federal Stafford Loan: This need-based loan provides up to \$2,625 for first year students, \$3,500 for sophomores, \$5,500 for juniors and seniors, and \$8,500 for graduate and professional students. The federal government pays the interest while you are enrolled on at least a half-time basis and during a six-month grace period. The interest is variable, capped at 8.25%.

Unsubsidized Federal Stafford Loan: Same terms and conditions as Federal Stafford Loans, except that the borrower is responsible for interest that accrues while attending school. This loan program is available if you don't qualify for a full subsidized Stafford loan. Independent students may be eligible for higher loan limits.

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

Student Educational Loan Fund (SELF): The Minnesota Higher Education Services Office provides loans for undergraduates and graduate students. Currently, first year students and sophomores can borrow up to \$4,500 per year, juniors and seniors can borrow up to \$6,000 per year, and graduate students can borrow up to \$7,000. You are eligible for SELF loans regardless of family income, but you must have a creditworthy co-signer. The interest rate is variable with a cap on increases and decreases at 2% for any 12-month period.

Short Term Loans: These loans are available to students for emergency expenses. You can get applications and information about short term loans in the WSU Financial Aid Office.

Assistantships

Several departments offer graduate assistantships to qualified graduate students. You should submit your request for an assistantship to the appropriate department chairperson or the appropriate dean. You are granted resident tuition status for the period of your appointment if you are appointed to a graduate assistantship before the first day of classes.

GENERAL STUDENT INFORMATION

Academics are essential in the pursuit of becoming an educated person. It is important to have positive, nurturing relationships during your college experience to realize your full potential. At WSU, you have a position of responsibility in planning and governing co-curricular aspects of student life. In the University residence halls, you will have an opportunity to become involved with student government, which in turn allows you to participate with the Faculty and Administration in discussing and resolving current issues.

Student Activities

The center of student activities revolves around the Student Union at Kryzsko Commons. This facility has venues such as campus dining center, patio, private dining rooms, convenience store, Pizza Hut, Blimpie and vending options. Conference rooms are available to students for informal gatherings. The Student Union is located on the main level, and it hosts a six-lane bowling alley, pocket billiards, a ping-pong area, student lounges and a television viewing center. Also on the main level is the WSU Bookstore. The Director of Auxiliary Enterprises and the Director of Student Activities work with student committees to coordinate 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. Joining any one of these organizations enhances your college experience. These clubs encompass academic, social, athletic, religious, cultural and political interests. Each organization provides service activities to benefit its members, the campus and the community. The Alliance of Student Organizations Committee (ASO) provides a central organization to which all University clubs belong.

Student publications include the Winonan (the student newspaper), Bravura (a laboratory publication of the Mass Communication Department with a circulation of 17,000) and Satori (a campus literary magazine). The student staffed and directed University radio station (KQAL-FM 89.5) provides a variety of music for WSU and the local community.

Residential Services

Six traditional residence halls offer unique opportunities to enhance academic experiences. Living on campus provides the chance to live near other students with similar interests and expectations. The following goals of WSU's residence life staff exist to foster a positive learning and enjoyable living environment:

1. Complement classroom learning with a variety of experiences that enhance the academic component, encourage leadership and citizenship
2. Provide a safe living and learning environment in which students can interact, study, socialize and rest comfortably
3. Cultivate, appreciate and understand diversity
4. Encourage participation in campus organizations and co-curricular activities
5. Provide a network of support, referral and information
6. Provide residents with opportunities for intellectual, physical, emotional, spiritual and occupational growth
7. Provide a well-trained and responsive peer staff that is able to support and implement the above goals

Residential Facilities

The eight residence halls house 1,800 students. Lifestyle options

vary within each hall. The residential living brochure includes a description of each building and the different options.

A well-trained and professionally supervised student staff encourages community development.

Lourdes Hall is home to the Residential College, one of our exciting academic lifestyle options. This special 'living/learning' environment provides you with the opportunity to attend some of your classes in the same building in which you live.

More information about campus residential services is available in the residential living materials.

Campus Dining

Residents have the option of eating in any of our on-campus dining areas: The Jack Kane Dining Center, located in Kryzsko Commons on the main campus, and the Lourdes Hall Dining Center and the Smaug (a grill and snack bar located in Kryzsko) or the Lourdes Snack Bar are optional dining choices. Students living in residence halls are required to participate in the dining service unless the Director of Residence Halls approves an exemption.

Off-Campus Housing

The Housing Office provides an Off-Campus Referral Service, located in 130 Kryzsko Commons. Listings of apartments and sleeping rooms are available for you in the office. The listings consist of information provided by individual landlords to the Housing Office. The referral service is open 8 a.m. to 4 p.m. during business days.

Please Note: The University makes no representation as to the kind, quality or quantity of facilities available from the landlords' information nor does the University have any control over changes in the information. The cost and availability of space are subject to change at the landlords' discretion.

WSU does not assume any liability arising from the relationship between you 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 nor does it operate married housing facilities. Students wanting to apply for subsidized housing should contact the Housing and Redevelopment Authority of Winona, 165 E. 4th St., Winona, Minn. 55987.

Reserving a Room

Space in the residence halls is in high demand. To secure a place in the WSU Residence halls you are encouraged to apply early. After being accepted to WSU, send in a Residential Living Application along with a \$20 processing fee. Once the application and processing fee is received, a Housing Contract/Lease Agreement is mailed to you around March 1. You have 30 days in which to return the document along with a \$150 advance payment to bind the contract.

Security Services

WSU Campus Security is a student-staffed security program. Security officers are easily identified by their yellow shirts and/or blue jackets. Campus Security works to ensure the safety of students, staff, faculty and University property. Campus Security is available 24 hours a day and works proactively to prevent crime. Statistics regarding campus climate for safety and security are available at the Office of Student Affairs.

Parking Services

Parking permits are needed to park in all University parking lots with the exception of metered spaces within the red Kryzsko lot and

metered spaces on Johnson Street. Information about obtaining a visitor permit is available in Parking Services. Applications for parking permits are accepted May 1 of each year for the next academic year. If applications exceed the parking spaces available, spring and fall drawings are held. If space become available after the drawing, permits are sold on a first-come, first-serve basis. If there are no permits available, your name is put on a waiting list. For more information and cost of parking permits on the WSU campus, contact Parking Services in the Sheehan Residence Hall; or call (507) 457-5062; or e-mail to:

pk@vax2.winona.msus.edu; or visit the parking web site at <http://www.winona.msus.edu/parking>

Affirmative Action Office

The Affirmative Action Office (AAO) is located in 202 B Somsen Hall. The Affirmative Action Officer provides information and investigates complaints of discrimination or harassment based upon 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 investigates concerns regarding sexual harassment at WSU. These confidential services are available by appointment or on a walk-in basis. Call 457-5008 or 457-5013 for more information or to make an appointment.

Counseling Center

Counseling is available without charge at the Counseling Center, 132 Gildemeister Hall. Counselors help you explore your interests and abilities and help you adjust to university life. You can confer with a counselor about any problem: personal, academic or vocational.

All counseling staff members are professional counselors with experience in counseling college students. A testing service is available with emphasis on vocational-interest testing. All information exchanged during counseling sessions is confidential and used exclusively for your benefit. 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 your general file.

Academic Skills Center

The Academic Skills Center is located in Howell 133. Any student can use the facilities and get help with study skills, reading efficiency, basic mathematics, science, and English skills. You also can get help in managing your time, preparing for tests and increasing your skills in listening, note-taking and using references. Call 457-5465 or stop in at Howell 133 to register for tutoring.

Academic Assistance Center (AAC)

Free academic assistance is available without an appointment in the Library, Room 301. The Academic Assistance Center is a peer-tutorial program designed to help students improve academically. View the Academic Assistance Center web site and other helpful WSU resources by clicking "Departments" on the WSU homepage or log on directly @ www.winona.msus.edu/advising/aac/

Student Health Service Facilities

The Health Service is located in the west wing of Maxwell Library. The facility is staffed by a physician, nurse practitioners, 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;
- Physical exams for sports, employment or travel
- Allergy injections (you must supply your own serum);
- Contraceptive counseling and prescriptions;

- Health education materials including pamphlets, videos and consultation which enables you to develop a lifestyle that will reduce your risk of disease and injury.
- Smoking cessation program

The Student Health Fee pays for most of the services provided during regular office hours. There are charges for medications, laboratory tests, some medical procedures and supplies. Emergency care is available evenings and weekends at Community Memorial Hospital, 855 Mankato Ave.

Pre-Enrollment Medical Examination

Each student must complete a medical history report and submit it to the Student Health Service. All new students get the form at registration or the health service mails it upon request. The form can be completed without a physical exam or a physician's signature. HOWEVER, the University recommends and encourages a physical exam be done. PLEASE NOTE: If you are planning to participate in athletics, a physical exam is MANDATORY and must be completed AFTER JULY 1!

TRANSFER STUDENTS: Your health records are not sent automatically with transcripts from other colleges, but you must specifically request the records. You still must complete the Report of Medical History for the WSU Student Health Service.

Immunization Record

Minnesota Law (M.S. 135A.14) requires that everyone 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 also requires you, if you want to remain enrolled, to submit your immunization information to the Student Health Service within 45 days of the beginning of the term. Forms are available in the Student Health Service and in the Class Schedules.

Career Services

Seniors, graduate students and alumni seeking full-time employment or juniors and seniors seeking internships can receive assistance from Career Services, 110 Gildemeister Hall. Equipment is available for your use in preparing your interactive, multi-media electronic portfolio known as "WINGS." We also have computer terminals available for your use in registering on our web site or updating your information on the web site.

Opportunities are available for you to interact with employers through Career Fairs, Job Fairs and on-campus interviews. Career Services also provides a referral service of your electronic resume to employers in addition to allowing employers to access your resume directly through our web site. Small group and individual advising is available from the Director.

The office is open from 8:00 a.m. to 4:30 p.m. during the academic year and 7:30 a.m. to 4:00 p.m. during the summer. You also can access job openings or update your resume via the internet 24 hours a day, seven days a week from the comfort of your computer. Employment information and graduate follow-up results are available in the office as well as on our web site: <http://career.winona.msus.edu>

Register early in your senior year to take full advantage of the services offered through Career Services.

Student Support Services

This is a federally funded program, and you are eligible for its services if you have a low income, you are a first-generation college student or you have a disability. Services include tutoring, academic advising, counseling and help in deciding a major. You can get more information about the program by visiting Howell 133 or calling (507) 457-5465. Services are free.

International Services and Cultural Outreach Program

The International Services Office, located in 128 Kryzsko Commons, provides assistance to all international students attending WSU. Information and advice is available regarding admission to the University, scholarships, immigration concerns, orientation programs, employment regulations for F-1 visa holders and other information related to the well-being of international students.

The Cultural Outreach Program also is housed in the International Student Office. The program provides learning opportunities for the campus and the wider community regarding the cultures of the 52 countries represented at the University.

A limited number of English language courses are available for non-native speakers. These courses are available based on scores obtained on the WSU English Test for Non-Native Speakers. This test is given after acceptance to the University and before enrollment.

Cultural Diversity

WSU is actively involved in the recruitment of culturally diverse students and is committed to academic excellence in a multicultural environment. A multicultural environment offers many benefits to all students and provides new insights into diverse life experiences. Further, Winona State encourages diversity within its student body, faculty and community.

The Winona State University Cultural Diversity Office oversees and coordinates a number of programs designed to assist culturally diverse students in reaching their educational goals. These programs focus on the strengths and the positive aspects of different cultures to foster an inviting, multicultural environment.

The mission of the WSU Cultural Diversity Office is to promote a diverse cultural climate that facilitates increased awareness, respect and understanding of the diverse cultures represented on campus as well as to ensure that all students are prepared to be highly effective in a multicultural and global society.

Child Care Center

The Child Care Center provides services for children, six weeks of age to 6 years. The center is open from 7:15 a.m. to 5:30 p.m., Monday through Friday. Children can be enrolled on a part-time or full-time basis.

The program enables parents of pre-school children to attend classes and study during the day while providing their children with quality care in an enriching, stimulating environment. The Child Care Center also is a laboratory for students majoring in early childhood. Contact the director at (507) 453-2560 for more information.

Nursery School

WSU's Nursery School is developmentally appropriate and provides an integrated setting for children, ages 3 to 5. There is a Monday-Wednesday-Friday group and a Tuesday-Thursday group. Each session is 9 a.m. to 11 a.m.

The program provides quality pre-school experiences for children, allows parents of pre-schoolers to attend morning classes, and provides students with a laboratory in which they observe children and participate in a structured program.

Media Services

Media Services strives to promote a stimulating learning environment by helping to move technology into the classrooms. They provide student ID cards, access to the university's media collection, and equipment. They also offer video & audio duplication services, color copier services, and graphics presentation services. Media Services is located in the lower level of Howell Hall at the north end of the campus mall.

2 + 2 Program

WSU's special partnership with Rochester Community Technical College, the 2 + 2 relationship, has been particularly important to the growth of the University's programs as well as being a unique attribute of RCTC. The relationship has been able to offer complete Bachelor's degrees by focusing on junior- and senior-level classes, with the transfer of RCTC degree work. The 2 + 2 programs available in Rochester are: Accounting, Business Administration, Computer Information Systems, Computer Science, Elementary Education, Professional Studies, Nursing, Psychology, Social Work and Sociology.

Student Conduct

The University conduct policy and related policies, which express expectations of behavior and provide for the protection of the rights of students, are published in the Class Schedules. Students will be provided copies of the handbook and are responsible for informing themselves of the regulations and complying with them. Behavior that is threatening to the safety or welfare of one's self or others, or that is harassing or discriminatory in nature, will be reviewed promptly by the University, and after due process, is subject to University sanctions. The student code of conduct does not replace or reduce the requirements of civil or criminal laws.

If you need additional information, contact the Student Affairs Office, 130 Kryzsko Commons, or visit the Student Affairs website at:

<http://www.winona.msus.edu/studentaffairs>

If you need assistance with a complaint, contact the University Judicial Officer, 130 Kryzsko Commons.

Student Right to Know Act

The rates at which full-time students complete bachelor's degrees from the University, within a specified period of time, are available on request from the Institutional Research Office, Somsen 201B as required by the federal Student Right to Know Act.

Crime Awareness and Campus Security Act

An annual Security Report is made available to the public as required by federal Crime Awareness and Campus Security Act. Updated annually and distributed campus wide, it contains specified crime statistics and other information related to campus safety issues. Copies of this report are available through the Dean of Student Affairs, 130 Kryzsko Commons or by visiting the Student Affairs web site at: <http://www.winona.msus.edu/studentaffairs>

Disability Services

Winona State University is committed to making its programs accessible to all qualified students. Students who need accommodations are advised to provide documentation to the 504 Coordinator, WSU, Phelps Hall 129, (507) 457-5600 (voice) or (507) 457-2409 (TTY), or (507) 457-5155 (FAX) or E-mail: ndumke@winona.msus.edu

Nondiscrimination on the Basis of Disability Policy/Procedure

Students may request educational accommodations from the 504 Coordinator, Nancy Dumke, 457-5600, and facility accommodations from Tess Arrick-Kruger, Affirmative Action Officer, 457-5013.

ACADEMIC INFORMATION

Policy Changes

Administrative and committee actions may change policies that affect you as a student at any time. It is your responsibility to comply with changes as they are reported in either the student newspaper (the Winonan), the quarterly class schedules or in a posted announcement on the Registrar's Office bulletin board, Somsen Hall, Room 114.

Credits and Limitations

Beginning fall semester 1998, the unit of work in the University has been measured and expressed in semester hour credits. Each credit requires 50 minutes in class per week for 15 weeks. The majority of courses are credited with 3 or 4 semester hours. You must earn an average of 16 semester credit hours each semester to complete requirements for a degree in four years (8 semesters).

Limitations

The University may restrict the number of credits in which you can enroll where previous low scholarship, out-of-school obligations or similar factors might interfere with satisfactory performance of your obligations. The University also may restrict you from registering if you fail to follow proper registration procedures.

Dean's List

If you are an undergraduate student, you are included on the Dean's List if you complete 12 semester hours or more for a grade at WSU (not including pass/no credit) during any one semester and achieve a grade point average of 3.50 or higher.

Declaration and Changes in Major/Minor/Certification Program

You must declare or change a major, minor or certification program by completing the appropriate form available in the Registrar's Office, Somsen Hall, Room 114. Upon declaring or changing a declared major/minor/certification program, you then must conform to requirements effective on the date indicated in the declaration or change form.

This catalog may not include the latest program requirements but you can get the most recent program implementation dates in the Registrar's Office and detailed program requirements are available in the office of the appropriate department chairperson.

Four-year Graduation Guarantee

The offer of a Four-year Graduation Guarantee is extended to first-time-in-college students who declare certain majors at the time of matriculation. If you sign a guarantee and comply with its terms and conditions, you are assured graduation after completing four years of full-time study. If you sign a guarantee and comply with the conditions but you do not receive a diploma, WSU promises you can complete any remaining required courses tuition-free. Contact the appropriate department or college dean for more information.

For information on whether the major you intend to declare participates in the Four-year Graduation Guarantee Program, contact the Admissions Office at (507) 457-5100.

Grade Point Average (GPA)

Each semester 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 F 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 certain majors).

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

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

Incomplete Grades

An 'Incomplete' is reserved for special cases in which you, for reasons beyond your control, are unable to finish an important assignment or other required coursework by the end of the semester, though you are passing in all other aspects. The Registrar must receive a grade for the Incomplete by mid-term day of the next semester in which you are enrolled. If an Incomplete is not replaced with a grade within the specified time, the grade automatically becomes an F.

Scholastic Standards

Grading System

Your work in any course is evaluated in accordance with the following system of letter grades: A means excellent; B means very good; C means average; D means below average; F means failing; NC means no credit; I means incomplete; P means pass. Other designations are W for official withdrawal; V for audit; IP for in progress; and H for Honors.

Time Limitation

Program requirements must be completed within seven years after declaring or changing a major/minor/certification. If the seven-year limit has expired, you then are required to complete the program requirements effective on the day after the seven-year limit has expired.

Undergraduate Student Classifications

First-year Student: 0-29 semester hours of credit
Sophomore: 30-59 semester hours of credit
Junior: 60-89 semester hours of credit
Senior: 90+ semester hours of credit

Academic Advising

Each of you is assigned a faculty advisor after your initial enrollment at WSU. Your major department assigns you an advisor if you have declared a major; the Advising and Retention Center assigns advisors to undeclared students. You are required to contact your advisor during the advising period before pre-registration each semester. The class schedule includes dates of each advising period.

Academic Integrity Policy

Academic integrity at Winona State University is based on honesty. The University community requires that work produced by students represents their personal efforts and requires that they properly acknowledge the intellectual contributions of others.

WSU students are required to adhere to the University's standards of academic integrity. The following are examples, not intended to be all inclusive, of types of behavior that are unacceptable and will be viewed as violations of the academic integrity policy.

EXAMPLES OF POLICY VIOLATIONS

Cheating: *Using or attempting to use unauthorized materials in any academic exercise or having someone else do work for you.* Examples of cheating include looking at another student's paper during a test, bringing a "crib sheet" to a test, obtaining a copy of a test prior to the test date, or submitting homework borrowed from another student.

Deception and misrepresentation: *Lying about or misrepresenting your work, academic records, or credentials.* Examples of deception and misrepresentation include forging signatures, falsifying application credentials, and misrepresenting group participation.

Enabling academic dishonesty: *Helping someone else to commit an act of academic dishonesty.* This would include giving someone else an academic assignment with the intent of allowing that person to copy it or allowing someone else to cheat from your test paper.

Fabrication: *Inventing or falsifying information.* Examples of fabrication include "drylabbing" (inventing data for an experiment you did not do or did not do correctly) or making references to sources you did not use in academic assignments.

Multiple submission: *Submitting work you have done in previous classes as if it were new and original work.* Although faculty may be willing to let you use previous work as the basis of new work, they expect you to do new work for the class. Students seeking to submit a piece of work to more than one class should seek the permission of both instructors.

Plagiarism: *Using the words or ideas of another writer without proper acknowledgment, so that they seem as if they are your own.* Plagiarism includes behavior such as copying someone else's work word for word, rewriting someone else's work with only minor word changes, and/or summarizing someone else's work without acknowledging the source.

DUE PROCESS

Due process refers to the concept of fair treatment. Due process rights of students accused of violating the academic integrity policy are as follows:

- (1) Oral or written notice of the charges from the faculty member.
- (2) An explanation of the evidence against them.
- (3) An opportunity to present their side of the story.
- (4) Notice of sanction(s) imposed (such as lowering a grade, failing the course, dismissal from a program, etc.).
- (5) An opportunity to appeal the sanction(s).

Students accused of academic dishonesty have the right to appeal a faculty member's sanction to the Grade Appeal Committee. The Grade Appeal Committee will make a recommendation only in cases involving accusation of academic dishonesty to the appropriate academic dean. The academic dean's (or designee's) decision is final.

Academic sanction appeals must be received in writing within five class days or, in the case of break periods, within five class days after returning from a break. A time extension may be granted upon request to the Grade Appeal Committee. Failure to submit a timely appeal, or request for extension, constitutes a waiver of any right to request an appeal. The written appeal must be based on one or more of the following reasons:

- (1) The evidence from the meeting between the faculty and the student does not support the outcome.
- (2) There are new or newly discovered facts not brought out in the original meeting, which may substantially affect the outcome.
- (3) There was a procedural error, which could have substantially affected the outcome of the meeting.
- (4) The sanction was excessively severe.

There may be circumstances when it may be appropriate for a more severe sanction/s other than the academic sanction. The dean of the college/s (or designee) where the alleged violation/s occurred, in collaboration with the WSU Conduct Officer (or designee), will make the decision as to whether the case will be heard as a behavior

discipline and be referred to the Student Affairs Office to be processed under the guidelines of the WSU Student Conduct Policy. Students found responsible for violation/s processed under the WSU Student Conduct Policy face disciplinary sanctions (such as probation, suspension, etc.).

Information pertaining to the WSU Student Conduct Policy can be obtained in the Student Affairs Office, upper level Kryzsko Commons, or visit the Student Affairs web site at <http://www.winona.msus.edu/studentaffairs>

Suspension Policy

Academic Standing

You must have a minimum WSU cumulative grade point average of 1.75 for the first 15 degree credits attempted and 2.00 thereafter to remain in good academic standing. Total credits attempted includes credits transferred into WSU.

Academic Warning and Suspension

You must be in good academic standing at the end of each academic year to remain enrolled in the University. A Notice of Academic Warning is sent to you if you are not in good academic standing at the end of the fall semester of each academic year. You will be suspended at the end of the spring semester by the Vice President for Academic Affairs if you have a cumulative grade point average below the minimum required for good academic standing. You are not subject to suspension until the following spring if you are newly admitted to the University in the spring semester. If you are suspended, you can submit a written appeal for readmission. If your written appeal is denied, you can appeal in person to the Academic Review Committee. You are eligible to return during the next academic year if your appeal is granted. Instructions for submitting an appeal are included in the Notice of Suspension.

Re-admission After Suspension

If you do not appeal a suspension or your appeal is denied, you must comply with the suspension policy regarding University enrollment. You cannot enroll for one semester after receiving your first Notice of Suspension; you cannot enroll in the University for a full academic year if you receive a second Notice of Suspension; you cannot enroll in the University for two full academic years if you've been suspended three or more times.

You may enroll in courses at WSU during the summer sessions if you've been suspended. If you've returned to the University after complying with the suspension policy, you are subject to suspension again at the end of the academic year in which you re-enroll.

Questions regarding the suspension policy or procedures can be answered in the Advising and Retention Center.

Academic Pardon Policy

The purpose of the academic pardon policy is to grant students a one-time pardon for their past failures and to allow them to resume their college careers with a realistic possibility of completing a degree. This program allows the calculation of a GPA based on courses taken after academic work which has been pardoned.

Approval of academic pardon has the following consequences:

- (1) You are not eligible for academic honors at graduation (i.e. *Cum Laude*, *Magna Cum Laude*, *Summa Cum Laude*).
- (2) Your cumulative GPA will be recalculated. The new GPA will be based on courses completed after you were readmitted. Grades and credits attempted during the period for which academic pardon has been approved will not be used in calculating your cumulative GPA printed on transcripts and in determining whether graduation requirements have been met.
- (3) Courses in which you received a grade of "C" or above prior to being readmitted will be used for academic credit but not used in calculating the GPA.
- (4) The following statement will appear on transcripts of your academic record: "This student was granted Academic Pardon under the WSU Academic Pardon Policy. All WSU courses with a

grade of "C" or above taken prior to readmission and granting of academic pardon were given academic credit, but were not used in the calculation of the WSU GPA."

- (5) Grades you received during the period of academic pardon will remain unchanged as a permanent part of your academic record, and will be printed on all transcripts of that record.
- (6) You must meet all major/program requirements in effect at the time you were readmitted.

Teaching Degree Requirements for B.A. Graduates

If you have a Bachelor's degree - other than teacher education - either from this University or another accredited institution, you 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.) You also must have a 'C' average in your minor if you request additional certification in your minor. You must have a minimum of a 'C' grade in each course in the Professional Education Sequence before you are allowed to student teach. To receive a second bachelor's degree, you must earn at least 30 semester credits after you complete your first degree.

Anyone applying 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 minimum scores in the reading, writing and mathematics components of the Pre-Professional Skills Test. Wisconsin and other states have specific requirements for certification, in addition to the completion of WSU's Professional Education Sequence.

See the Registrar, Somsen Hall, Room 114, for more information on teacher certification.

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

Types of Courses and Credit Arranged Classes

You must complete an Arranged Class Application Form if you want to enroll in a course that is listed in the WSU Catalog, but not offered during a specified semester. A course may be offered on an arranged basis at the discretion of the appropriate faculty member, department chairperson and dean. You must be fully matriculated with an established GPA at WSU of 2.00 or higher. Applications must be completed according to announced deadlines. You must register for the course at the designated registration time for the particular semester in which you want to take the course.

Audited Courses

The auditing procedure permits you to attend classes but you don't receive credit. Courses pursued on an audit basis must be declared and processed as part of your registration. Regular tuition charges apply. You cannot use audited courses to satisfy graduation, certification or licensure requirements.

Credit by Examination

If you can satisfy the requirements of a course by a written or oral examination, you may be able to get credit by departmental examination without formally enrolling in a course. This policy's intent is to make it possible, without enrolling in the course, for you to establish credit if you have completed equivalent study at a non-accredited school or you can present evidence of independent study and related work experience. You must be fully matriculated with a minimum 2.00 GPA at WSU and enrolled at the University during the semester in which a credit by examination is taken. You cannot use this process to repeat a course to improve a grade.

Independent Study

Projects beyond the scope or range of any courses offered at WSU can be pursued on an independent study basis at the discretion of the appropriate faculty member, department chairperson and dean. You must be fully matriculated with an established cumulative GPA at WSU of 2.00 or higher. Applications must be completed according to announced deadlines. You must register for the course at the designated registration time for the particular semester in which you want to take the course.

Internships

All departments offer internships by arrangement with the department chairperson. Many departments offer internship experiences with credit and, in some instances, with pay. You must be fully matriculated with an established cumulative GPA at WSU of 2.00 or higher. Applications must be completed according to announced deadlines. You must register for the internship at the designated registration time for the particular semester in which you want 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

English 099 and Mathematics 050 are offered for non-degree credit only. The credits attempted can be counted for financial aid and athletic eligibility requirements. However, the credits earned can't be counted in the minimum total credits required for graduation.

Pass/No Credit Courses

The University's pass/no credit (P/NC) grading classification enables you to enroll in unfamiliar or difficult academic subjects without fear of jeopardizing your Grade Point Average (GPA). It is intended to introduce you to life-long learning—learning that does not have to include the traditional reward or penalty of a grade.

Although courses taken on a P/NC basis grant credit toward graduation, the credit does not affect the cumulative GPA. A P (pass) or NC (no credit) is entered on your permanent record after you complete such a course. P is interpreted as equivalent to A, B, C or D.

Departments designate which courses they require or permit to be taken on the P/NC basis. Major, minor or professional courses generally are not included, but a departmental chairperson may approve an exception. The department may permit the course to count if you select a major or minor after taking a course in the department on a P/NC basis.

You cannot take more than six P/NC credits per semester exclusive of student teaching and internships. The six credits include both optional P/NC classes and classes in which P/NC grading is mandatory. Additionally, the total number of credits for graduation may not include more than 32 P credits. Optional P/NC courses, mandatory P/NC courses, student teaching and/or internships all are counted in the 32 credit limitation. You must decide by the last day of the drop/add period whether or not you're going to take a course on a P/NC basis.

You can repeat a course if you received a grade of NC, but you must repeat it for a regular grade, and it is included in your GPA.

Repeated Courses

When you repeat a course, only the last grade received and credits earned are included in the GPA computation. If you withdraw (W) while repeating a course, the original grade is included in the GPA computation. When you repeat a course, you must take it the second time on a regular graded basis.

It is your 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 incorrect GPAs because you failed to submit the necessary form as notification that you are repeating a course. If you have been

awarded a baccalaureate degree, you cannot repeat undergraduate coursework to improve your GPA.

Summer School and Evening Courses

Two five-week sessions are offered each summer. You can complete a full semester of coursework by attending both sessions. Also offered during the summer are special workshops carrying credit.

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

Follow instructions on the WEB or in the "class schedule" booklet if you want to add or drop classes after you have registered.

Course and University Withdrawal

You can drop classes or withdraw from the university **without academic record** through the sixth instructional day of a semester (third instructional day of a Summer session). If you drop or withdraw before this deadline, transcripts of your academic record will not indicate that you were registered. During this period you can drop or withdraw using an internet application or with staff assistance.

You can drop classes or withdraw from the university **with academic record** between the seventh instructional day and the ninth week of a semester (fourth instructional day and fourth week of a Summer session). The deadline date of this period is published in the "Class Schedule" booklet and on the WEB. If you drop or withdraw during this period, transcripts of your academic record will indicate that you received a 'W' (withdrew) grade. 'W' grades are not included in computations of GPAs. During this period staff assistance is required to drop or withdraw.

If you drop a class that you are repeating, the original grade will be included in computing GPAs.

If you stop participating in a class or classes without formally dropping or withdrawing, a grade of 'F' will be recorded.

When you withdraw from the university, you must take care of all financial obligations.

Credit Transfers and Transcripts

Universities and other colleges accept academic courses, undergraduate and graduate completed at WSU, when they are applicable to a curriculum you may choose and meet prescribed scholastic standards.

Transcripts are issued by the Registrar's Office only upon your written request, since student records are confidential in nature. Partial transcripts are not issued. Each transcript must include your complete academic record. The University cannot certify credit earned at other institutions; therefore, copies of such transcripts are not issued. All WSU transcript requests must be submitted in writing. There is no charge for transcripts.

Transcript orders usually are filled with official transcripts. Official transcripts which bear the University's seal are sent directly from the Registrar's Office to a person representing a business, institution or organization. When a transcript is given to you, 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. Transcripts that are relayed via FAX are not considered official because they are copies only and the embossed seal cannot be copied.

Application for Graduation

You must apply for graduation at least two semesters before you expect to graduate. A four-week minimum must be allowed for application processing and notification. Forms are available in the Registrar's Office, Somsen Hall 114. Applications are processed in the order in which they are returned to the Registrar's Office.

Graduation for any particular semester is final 10 working days after the end of the semester. Degrees are posted on student

transcripts at the end of the fall semester, spring semester and the second summer session.

Graduation Requirements

Graduation requirements for a Bachelor of Arts or Bachelor of Science teaching or non-teaching degree are:

1. 128 semester hours of credit
2. Overall 'C' average*
3. 30 semester hours in residence during the junior and senior years combined (residence credit is defined as credit for classes taught by WSU instructors and credit earned by any WSU student under the Minnesota State University Common Market Program; credit by examination is not included.)
4. Enrollment at WSU during the semester of graduation
5. General education requirements completed (see the section on General Education Program)
6. Completion with a C average*, of either (1) a broad major of 47 semester credits or more; or (2) a major of less than 47 semester credits, and 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.) A department with a broad major may not require a minor.

* Certain departments require you to earn a 'C' or better in each course within their major/minor or earn a 'C' or better in specific courses in their major/minor. You must check with individual departments for any additional GPA requirements.

You cannot receive a major, minor, option or concentration that is wholly contained within a major or option that you are earning.

You can use a course to meet requirements in any major, minor, option or concentration requiring the course. However, you may not use a course in your major to meet general education requirements unless it is an "additional requirement." Those courses are noted under the Major Requirements with an asterisk *. (Credit earned in the course counts only once toward the minimum 128 semester credits required for graduation.)

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

The major grade point average does not include additional requirements.

No degree is awarded until all grades are finalized. I or IP grades cannot 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. If you change from one curriculum to another within the University, you must meet requirements of the newly chosen curriculum even though the total number of credits earned exceeds the total minimum for graduation.

Special graduation requirements for a Bachelor of Science in Engineering degree are listed in the catalog's Engineering section.

If you complete two majors which fall under different degrees (for example: Bachelor of Arts and Bachelor of Science), only one degree is posted to your academic record unless you complete 30 semester hour credits at WSU after the first degree is posted. You may choose which degree is posted, but if you complete a Bachelor of Science (teaching) major and wish to get a teaching license, you will be encouraged to have that degree posted.

If you return after graduation from WSU to earn an additional (different) bachelor degree at WSU, you must complete a minimum of 30 additional credits for the second degree. If you complete another major but do not complete the additional 30 credits, the major is recorded on your permanent record but the additional degree is not recorded, and you do not receive another diploma. You receive only one diploma for each degree earned.

You have the final responsibility for selecting and registering in courses meeting curriculum requirements.

Three weeks before graduation, a list of candidates is posted on the Registrar's Office's bulletin board on the first floor of Somsen

Hall. You should review the list to ensure that you have been approved for graduation; you must notify the Registrar immediately if you are a candidate for graduation and your name does not appear on the list. You are expected to attend commencement. If you are unable to participate in commencement for some unavoidable reason, you are expected to notify the Registrar's Office.

Graduation With Honors

You are graduated Cum Laude if you're graduating with an overall grade point average between 3.250 and 3.499. You are graduated Magna Cum Laude if you're graduating with an overall GPA average between 3.500 and 3.749. You are graduated Summa Cum Laude if you're graduating with an overall GPA average between 3.750 and 4.000. All courses from all institutions are used in computing honors. To be considered for honors, however, your WSU GPA must be 3.250 or higher.

You must have completed 30 semester hours in residence during your junior and senior years to be eligible for graduation with honors.

For the commencement ceremony, honors are calculated by using credits and grades as of the end of the previous term of enrollment.

Study Programs

Minnesota State University

Common Market Program

Under the Student Exchange Program, a WSU student may attend other Minnesota state universities - one institution for a maximum of one semester - up to a total of three semesters at three different institutions. By doing so, you may take advantage of curriculum and program specialties and the different intellectual and social climates. The home university considers credits earned under the program as 'resident credit.'

When you apply, you list the courses you want to take and usually include several alternate choices. The Common Market Director at the receiving institution notifies you whether or not your request can be met. You indicate your choice of housing on your application form, and the request is referred to the Housing Office at the receiving university. Assistance also is given in transferring financial aid.

You are eligible to participate in the Common Market Program if you have attended your home institution for at least two consecutive semesters and have earned at least a 2.00 GPA at WSU. Catalogs, class schedules and application forms are available in the Registrar's Office, Somsen Hall, Room 114.

WSU/SMU Cooperative Program

The cooperative program between WSU and Saint Mary's University allows full-time, undergraduate WSU students to take classes at SMU and pay tuition for the credits at WSU. You are required to take a minimum of 9 credits at WSU the semester in which you enroll in the cooperative program unless the department chairperson or the appropriate college dean has approved an exception.

If you are interested in participating in the program, contact the Registrar's Office, Somsen Hall, Room 114.

If you decide to take a course at SMU, you must get a permit which requires the approval of your advisor and the Registrar's Office. You then present the permit to the registrar at SMU for processing and return the approved permit to the WSU Registrar's Office.

Adult, Continuing Education and Extension Department (ACEED)

Continuing Education

Continuing Education provides non-credit courses as well as courses offering continuing education units (CEU's). The courses frequently fulfill specialized learning needs identified by businesses and organizations. 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 the same as an academic degree credit. The CEU is recorded on your transcript and can serve as verification for continuing education activities.

Instruction for CEU courses and activities may be provided by WSU faculty, community resource persons or visiting experts.

Contact the Adult, Continuing Education and Extension Office for more detailed information about CEU offerings or if you want to discuss how WSU may be able to provide learning resources for your organization. The office is in Somsen Hall, Room 109, WSU, Winona, MN 55987, (507) 457-5080 or 1-800-242-8978.

Adult Entry Program

WSU established the Adult Entry Program in an effort to serve the educational needs of adult students within its service area, on and off campus. The program is for adults wanting to pursue a baccalaureate or an Associate of Arts degree.

This unique and innovative program provides the opportunity for an assessment and review of prior learning acquired through informal education or life/work experience. WSU validates credits earned, and they apply toward a degree program.

Please contact the Adult, Continuing Education & Extension Office, Somsen Hall, Room 109, WSU, Winona, MN 55987, (507) 457-5080 or 1-800-242-8978 if you're interested.

Customized Training

WSU works closely with the business community to provide continuing education for their employees. Individual courses and programs are designed to meet the needs of the company and can be delivered on-site at the business or on-campus. Courses may be offered for credit or non-credit. For more information regarding customized training and education programs contact the Adult, Continuing Education & Extension Office, Somsen Hall, room 109, WSU, Winona, MN 55987, (507) 457-5080 or 1-800-242-8978.

Extension Program

WSU, in addition to its regular program, offers a variety of on-campus and off-campus learning experiences for residents in the area. These courses may be undergraduate or graduate classes, and may be suitable for those seeking a degree or personal enrichment. Credit offerings also may be developed that 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 WSU faculty; specially scheduled workshops and seminars; educational travel opportunities; and credit options for workshops and/or conferences scheduled by outside agencies.

You are not required to be admitted to WSU before enrolling in an undergraduate extension class. You must complete an application form if you are a graduate student.

All extension courses can apply toward appropriate degree programs.

Contact the Adult, Continuing Education & Extension Office, Somsen Hall, Room 109, WSU, Winona, MN 55987, (507) 457-5080 or 1-800-242-8978 for more information.

Senior Citizen Programs

All senior citizens who are legal residents of Minnesota (reciprocity is not available) can take WSU courses by special arrangement and within legislative limitations.

You are considered a senior citizen if you have reached the age of 62 before the beginning of any semester in which you're going to take a course. You can register for courses on a no-credit basis at no cost or you can register for credit on a fee basis, which requires a service charge of \$20.00 per credit hour (amount subject to change). Enrollment is on a space-available basis.

WSU offers Elderhostel, a week-long residential learning experience, for anyone 55 years or older. Elderhostel is a non-profit

organization committed to high quality, affordable, educational opportunities for older adults.

WSU ACEED also sponsors the Learning Club, a local, non-profit organization dedicated to the continuing education of people who have retired. It capitalizes on the strengths and characteristics of older learners by offering programs that are selected and often taught by the club's membership.

Club activities are geared specifically to interests of people who are retired. It is education that is 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 also is a great way to meet people.

Classes are scheduled during the day at convenient locations throughout the city.

Please contact the Adult, Continuing Education & Extension Office, Somsen Hall, Room 109, WSU, Winona, MN 55787 for registration details or call (507) 457-5080 or 1-800-242-8978.

Student Orientation Program

To assist your transition into the University, WSU offers an orientation course for incoming first-year students. This course introduces you to services, activities, expectations and opportunities at WSU and provides you with the means to network with other students, faculty and staff. See Course Descriptions for more details. The Advising and Retention Office notifies incoming first-year students as to the dates, times and locations of this orientation course.

Study Abroad

A variety of Study Abroad options are available for you if you are interested in broadening your university experience and enhancing your resume by including a living and learning experience in a foreign country. In addition to programs sponsored by WSU, you may select programs through other universities. Programs vary in location, length, cost, admission requirements, application deadlines, focus, etc., so it is important to receive the most recent and detailed information. Early and careful planning for Study Abroad is important; you will want to maximize the academic and cultural benefit of the experience. All WSU-sanctioned programs that are one semester or more carry 12-15 credits per semester (short-term study/tours carry fewer credits).

To make an appointment to explore options and receive information about Study Abroad, you should contact the Residential College/Study Abroad Office, Lourdes Hall – Room 152. Phone (507) 453-2500.

PROGRAM PLANNING SHEET

This Program Planning Sheet may be used for the majority of programs offered at WSU. In some majors, specific general education courses are required. Please refer to the catalog for those specific program requirements.

GENERAL EDUCATION

45 Semester Hours Minimum

T/R = Transfer/Resident S.H. = Semester Hours

GR = Grade

I. BASIC SKILLS

A. Written composition 4 S.H. T/R SH GR

English 111	4			
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B. Oral Communication 3 S.H.

Comm Studies 191	0-3			
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or satisfactory completion of a special examination offered once a semester by prior arrangements

C. MATHEMATICS 0-3 S.H.

Mathematics 050	0			
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Mathematics 100	3			
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Successful completion of any MATHEMATICS or MATHEMATICS STATISTICS course except 050, STAT 115 or 255 waives Basic Math Skills Mathematics requirements. MATH 050 is an additional requirement for students with a low math placement score.

D. PHYSICAL EDUC ACTIVITY 2 S.H.

	1			
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	1			
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II. HUMANITIES (6 S.H.)

Two Departments Required

	3			
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	3			
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III. NATURAL SCIENCE (6 S.H.)

Two Departments Required

One Lab Course Required

	3			
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	3			
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IV. SOCIAL SCIENCE (6 S.H.)

Two Departments Required

	3			
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	3			
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V. DIFFERENT CULTURE (6 S.H.)

Two Departments Required

	3			
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	3			
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VI. ALLIED STUDIES (3 S.H.)

HPER 204 Required for Teaching

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To fulfill the minimum credits for categories II-V, students must take courses from two separate departments.

Additional credits required to reach the 45 credit minimum are at the student's discretion, provided the student takes no more than **two** courses per general education category from a single department.

ADDITIONAL CREDITS (6 - 12 S.H.) T/R SH GR

GENERAL ELECTIVES

	T/R	SH	GR	

MAJOR COURSES

MINOR COURSES

PROFESSIONAL EDUCATION

Please check Education section of catalog for a list of courses under Professional Education area and specific General Education requirements.

GENERAL EDUCATION REQUIREMENTS

A REVISION OF THE GENERAL EDUCATION PROGRAM WAS UNDER DISCUSSION AT THE TIME THIS CATALOG WAS PRINTED. PLEASE ADHERE TO THE PRESENT PROGRAM UNTIL THE NEW PROGRAM IS PUBLISHED.

The General Education Program is designed to widen a student's intellectual horizons. General education courses develop basic skills, introduce key societal values, 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 teacher education and engineering. Transfer students should check the transfer policy statement under the Admissions Information section in this catalog entitled "General Education Transfer Policy" for detailed information concerning general education.

If you change your major from a teaching major to a non-teaching major, you must meet the standard General Education requirements listed in the undergraduate catalog. If you change your major from an engineering major to another major, you must also meet the standard General Education requirements listed in the undergraduate catalog.

I. BASIC SKILLS (12 S.H.)

A. Written Communication (4 S.H.)

English 111

B. Oral Communication (0-3 S.H.)

CMST 191 or satisfactory completion of a special examination offered once a semester by prior arrangement.

C. Mathematics (0-3 S.H.)

Mathematics 100

Successful completion of any Mathematics or Mathematics Statistics course except MATH 050, STAT 115 or STAT 255 waives Basic Skills Mathematics requirement. MATH 050 is an additional requirement for students with a low mathematics placement score.

D. Physical Education Activities (2 S.H.)

PER 100, 101, 102, 103, 104, 112, 116, 118, 120, 122, 123, 128, 134, 135, 136, 137, 139, 140, 141, 142, 199.

II. Humanities (6 S.H. minimum - 2 departments)

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 (6 S.H. minimum; one lab course required - 2 departments)

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 (6 S.H. minimum - 2 departments)

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 (6 S.H. minimum - 2 departments)

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 (3 S.H. 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.

To fulfill the minimum credits for categories II-V, students must take courses from two separate departments. Additional credits required to reach the 45 credit requirement are at the student's discretion, provided the student takes no more than two courses per general education category from a single department.

Approved Courses

The courses listed below by area and department are 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 toward meeting the requirements in any minors or concentrations requiring the course.

B. Students 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 that is required in the major/option but is outside the major/option department. Additional requirements are noted in major/option with an asterisk*. Additional requirements are not calculated into a student's major GPA.

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 counts toward meeting the major/option requirement, and the student must take a different general education course to meet general education requirements.

D. 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 (6 credits-2 departments)

ART

109 Introduction to Art

114 2-D Design

115 3-D Design

118 Drawing I

221 Art History I

222 Art History II

224 American Art

COMMUNICATION STUDIES

196 Fundamentals of Interviewing

261 Public Speaking

280 Nonverbal Communication

282 Introduction to Communication Studies

283 Introduction to Rhetorical Studies

287 Communication and Conflict

289 Gender Communication

ENGLISH

120 Introduction to Literature

121 Major British and American Fiction

125 Masterpieces of Short Fiction

131 Masterpieces of American Literature

FOREIGN LANGUAGES

* 101 Elementary French I

* 102 Elementary French II

* 201 Intermediate French I

- * 202 Intermediate French II
- * 101 Elementary German I
- * 102 Elementary German II
- * 201 Intermediate German I
- * 202 Intermediate German II
- * 101 Elementary Spanish I
- * 102 Elementary Spanish II
- * 201 Intermediate Spanish I
- * 202 Intermediate Spanish II

HISTORY

- 120 Western Civilization to 1500
- 121 Western Civilization 1500-1815
- 122 Western Civilization 1815-Present
- * 123 East Asia Civilization
- 150 United States History to 1865
- 151 United States History Since 1865
- * 165 Latin American History
- 210 American Military History
- * 233 History of Mexico
- * 235 History of the American Indian
- 240 History of Christianity

HONORS

- 201 Thought & Culture
- 251 Special Seminar

HUMANITIES

- 140 Approaches to the Film

MUSIC

- 109 Introduction to Music
- 110 Introduction to Jazz
- 111 Film Music: Art Behind the Scenes
- 113 Women in Music
- 114 World Music
- 120 Introduction to Music Theory
- 122 History of Rock Music

PHILOSOPHY

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

THEATRE AND DANCE

- 100 Theatre Activities (maximum of 3 s.h.)
- 111 What is Theatre?
- 115 Dance Appreciation
- 119 Play Reading
- 131 Performance I For Everyone
- 141 Oral Interpretation I
- 210 Theatre History & Dramatic Literature I
- 310 Theatre History and Dramatic Literature II

III. NATURAL SCIENCE

(6 credits-one lab required-2 departments)

BIOLOGY

- 104 Conservation of Environment
- 117 Human Biology
- 118 General Biology (Lab)
- 201 Human Anatomy (Lab)
- 203 Natural History (Lab)
- 204 Elements of Anatomy & Physiology (Lab)
- 211 Anatomy and Physiology I (Lab)
- 212 Anatomy and Physiology II (Lab)
- 241 Principles of Biology I (Lab)
- 242 Principles of Biology II (Lab)
- 269 Human Reproduction
- 303 Survey of Plants (Lab)

CHEMISTRY

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

COMPUTER SCIENCE

- 115 Using Personal Computers
- 130 Introduction to BASIC Programming
- 150 An Overview of Computer Science
- 210 Computers in Society

GEOSCIENCE

- 100 Minnesota Rocks and Waters (No Lab)
- 103 Natural Disasters (No Lab - 3 cr.)
- 105 Astronomy (Lab - 4 cr.; No Lab - 3 cr.)
- 110 Oceanography (Lab - 4 cr.; No Lab - 3 cr.)
- 115 Meteorology (Lab)
- 120 Dynamic Earth (Lab)
- 130 Earth and Life Through Time (Lab)

HONORS

- 203 Great Ideas in the History of Science and Mathematics
- 253 Special Seminar

MATHEMATICS/STATISTICS

- ** 110 Finite Mathematics
- ** 120 Precalculus
- ** 140 Applied Calculus
- ** 150 Math for the Earth and Life Sciences I
- ** 155 Math for the Earth and Life Sciences II
- ** 160 Calculus I
- ** 165 Calculus II

Statistics

- ** 110 Fundamentals of Statistics
- ** 210 Statistics
- ** Higher level courses waive Basic Skills Math

PHILOSOPHY

- * 210 Inductive Reasoning

PHYSICS

- 115 Conceptual Physics (Lab)
- 200 Fundamentals of Aviation
- 201 General Physics I (Lab)
- 221 University Physics I (Lab)

IV. SOCIAL SCIENCES (6 credits-2 departments)**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 Special Seminar

PHILOSOPHY

- * 240 Philosophy of Science

POLITICAL SCIENCE

- 103 Introduction to Politics
- 120 Introduction to American Politics
- 130 Introduction to International Relations
- 135 Introduction to Comparative Politics
- 150 Introduction to Political Theory
- 205 The United Nations in World Affairs
- * 224 Politics and Society in Latin America
- * 225 Ethnic Conflict and Nationalism
- * 226 Politics and Society in Africa
- * 270 Politics and Society in the Middle East

PSYCHOLOGY

- 210 General Psychology

- 275 Psychology of Women
- 298 Health and Psychology

SOCIOLOGY

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

WOMEN'S STUDIES

- 220 Power, Privilege and Gender

V. DIFFERENT CULTURE (6 credits - 2 departments)

COMMUNICATION STUDIES

- 281 Cross-Cultural Communication
- 285 Native American Oratory
- 286 African American Rhetoric

ENGLISH

- 105 ESL: Listening to Academic Speech
- 106 ESL: Academic Reading and Writing I
- 107 ESL: Academic Reading and Writing II

(The above are applicable to international students only)

- 223 Classical Mythology
- 224 The Bible as Literature
- 251 Indian Literature

FOREIGN LANGUAGE

- * 101 Elementary French I
- * 102 Elementary French II
- * 201 Intermediate French I
- * 202 Intermediate French II
- * 101 Elementary German I
- * 102 Elementary German II
- * 201 Intermediate German I
- * 202 Intermediate German II
- * 101 Elementary Spanish I
- * 102 Elementary Spanish II
- * 201 Intermediate Spanish I
- * 202 Intermediate Spanish II

GEOGRAPHY

- 223 Geography of the Orient
- 224 Geography of Africa
- 225 Geography of Latin America
- 233 Geography of the Middle East

GLOBAL STUDIES

- 200 Introduction to Global Studies

HISTORY

- * 123 East Asian Civilization
- 125 Classical History
- * 165 Latin American History
- 170 African Civilization
- 220 Introduction to African American History

- * 233 History of Mexico
- * 235 History of the American Indian

MUSIC

- 115 Music of East and Southeast Asia
- 116 Music of the Native American

PHILOSOPHY

- * 201 Classical Philosophy
- * 202 Aristotle to Medieval Philosophy

POLITICAL SCIENCE

- * 224 Politics and Society in Latin America
- * 225 Ethnic Conflict and Nationalism
- * 226 Politics and Society in Africa
- * 270 Politics and Society in the Middle East

SOCIOLOGY

- 201 Scandinavian Culture I

VI. ALLIED STUDIES (3 credits)

ACCOUNTING

- 211 Financial Accounting Principles
- 212 Managerial Accounting Principles

ADMINISTRATIVE INFORMATION SYSTEMS

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

BUSINESS ADMINISTRATION

- 101 Introduction to Law and the Legal Process
- 106 Introduction to Business

COUNSELOR EDUCATION

- 200 Career/Decision Making
- 220 Emotions and Behavior

EDUCATION

- 120 Parenting

FINANCE

- 201 Introduction to Finance

HEALTH AND HUMAN PERFORMANCE

- 204 Personal and Community Health
- 205 Nutrition for Lifetime Wellness

MARKETING

- 100 Marketing and Society

MASS COMMUNICATION

- 100 Mass Media and Society
- 120 Electronic Media

NURSING

- 260 Women's Health Issues

PHYSICAL EDUCATION/RECREATION

- 214 Standard First Aid and CPR
- 239 Outdoor Pursuits

WOMEN'S STUDIES

- 148 Introduction to Women's Studies

ACADEMIC PROGRAMS

All degree and non-degree undergraduate programs are listed by departments arranged alphabetically. Included are undergraduate majors, minors, program options, licensure programs and professional sequences.

Interdisciplinary Programs. Undergraduate programs sponsored by more than one department also 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.

Academic Programs

All degree and non-degree undergraduate programs are listed by departments arranged alphabetically in the Academic Programs section. Included are undergraduate majors, minors, program options, licensure programs, professional sequences and pre-professional sequences.

Preceding the Academic Programs section, information is provided about each of 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

Interdisciplinary Programs. Undergraduate programs sponsored by more than one department are listed alphabetically.

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

Course Descriptions

Immediately following each department's program descriptions are course descriptions of all courses offered in the department. 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 first-year students 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. First-year students are not permitted to enroll in 400-level courses.

Undergraduate students who need 12 or less semester credits to complete all baccalaureate degree requirements may request permission from the Director of Graduate Studies to take courses for graduate credit to complete a regular course load during the semester of graduation. However, undergraduate students may not enroll in courses at the 600 level or 700 level.

2. **Prerequisites.** A prerequisite is either a course that must have been completed previously or a notice that the instructor's permission is required prior to enrolling in the course.

3. **Frequency of Offering.** Descriptions of courses show how often that course is offered.

4. **Pass/No Credit Status.** If a course is offered only 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 the 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, WSU 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)

COLLEGE OF BUSINESS

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

Degrees offered by the College

	Major	Minor	Teaching Major
Bachelor of Arts			
Economics	X	X	
Bachelor of Science			
Accounting	X	X	
Business Administration	X	X	
Business (Teaching)			X
Business Law		X	
Finance			
Option A	X		
Option B	X		
Human Resources Management	X		
International Business		X	
Management		X	
Management Information Systems	X	X	
Marketing	X		
Training and Development		X	

Master of Business Administration

Master of Science

Training and Development

NOTE: See GRADUATE BULLETIN for information on graduate programs.

Departments

Accounting, Administrative Information Systems, Business Administration, Economics and Finance, Marketing

Mission

The mission of WSU's College of Business is to provide quality undergraduate business programs designed to prepare students to live, lead, work, and grow professionally and personally in the 21st Century.

The college is committed to the continuous improvement of teaching and learning; instructional development and applied scholarship; and service to public, private and professional organizations; and businesses. The College of Business serves the educational and professional needs of southeast Minnesota, offering undergraduate programs in Winona and Rochester, while attracting students from other areas of Minnesota and the upper Midwest.

Our programs are designed to help students to:

- Secure a basic education in the social sciences, natural sciences and humanities.
- Acquire the broad knowledge essential to understand the global, diverse environment within which business operates.

- Develop an appropriate specialization within the College of Business.
- Use effective written and oral communication skills, quantitative skills, critical thinking and problem-solving skills, and ethical behavior.
- Understand the ever-increasing pace at which social, economic and technological changes are occurring and be prepared to deal with those changes.
- Develop an understanding of the importance of continuous improvement and lifelong learning.

Departments in the College will use quality indicators and assessment techniques to ensure educational excellence, follow principles for good practice in undergraduate education, conduct periodic program reviews as required by MnSCU and solicit input from stakeholders, the students, alumni and businesses.

COLLEGE OF EDUCATION

Carol Anderson, Dean
Gildemeister Hall, Room 135; (507) 457-5570

Degrees offered by the College

<i>Bachelor of Science</i>	<i>Major</i>	<i>Teaching Major</i>	<i>Teaching Minor</i>
<i>Early Childhood Education (Birth to Grade 3)</i>		X	
<i>K-6 with Middle School Communication Arts and Literature</i>		X	
<i>K-6 with Middle School Mathematics</i>		X	
<i>K-6 with Middle School Science</i>		X	
<i>K-6 with Middle School Social Studies</i>		X	
<i>K-6 with Pre-Primary</i>		X	
<i>Physical Education</i>		X	
<i>Recreation</i>			
<i>Recreation and Leisure Studies Option</i>	X		
<i>Therapeutic Recreation Option</i>	X		
<i>Special Education</i>		X	

NOTE: For specific majors and minors in secondary education, see appropriate departmental listing

Education Licensures

Developmental Adapted Physical Education

Special Education Licensures

*Learning Disabilities
Mental Impairment*

Master of Science

Counselor Education:

*Professional Development Program
Community Counseling Program
Elementary School Counseling Program
Secondary School Counseling Program*

Educational Leadership:

*Elementary School Leadership
Secondary School Leadership*

Education:

Education (Elementary or Secondary)

Special Education:

*Learning Disabilities Concentration
Mental Impairment Concentration*

Specialist

Educational Leadership:

*Elementary School Leadership
Secondary School Leadership
General School Leadership*

IMPORTANT: *These program requirements are subject to change. All students should consult with the department for current requirements regarding licenses and licensure requirements.*

NOTE: See GRADUATE BULLETIN for information on graduate programs.

Admission and Graduation Standards

See appropriate department for details.

Departments

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

Mission

The WSU College of Education's basic mission is to provide continuing leadership and excellence in preparing classroom teachers, counselors, administrators and other educational professionals. The College delivers 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 College's specific mission 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 endeavors to provide students with appropriate field experiences in the region, throughout Minnesota and other states. Further, it provides opportunities for cross-cultural and international awareness through both general education and professional work.

Faculty members in the College are committed to the serious study of education and the promotion of professional standards to foster innovation in professional preparation.

The College of Education at WSU 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 and school counselor programs are approved for licensure by the Minnesota Board of Teaching. Administration programs are approved by the Minnesota Board of Education.

Research and Regional Service

The College has 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, and supports the publication of the Southeastern Minnesota Alliance Journal.

Field Experiences

All programs within the College provide professional field experiences and internships for students in schools, businesses or other organizations.

COLLEGE OF LIBERAL ARTS

Peter Henderson, Dean
 Minne Hall, Room 206; (507) 457-5017

Degrees offered by the College

Associate of Arts

(two-year degree): General

<i>Bachelor of Arts</i>	Major	Minor
Art	X	X
Communication Studies Option	X	X
Organizational Communication Option	X	
Dance		X
English	X	X
First Combining Option	X	
Second Combining Writing Option	X	
Writing Option	X	X
Creative Writing Option		X
French	X	X
Geography		X
German	X	X
Global Studies		X
History	X	X
History of Art		X
Intercultural Communications		X
Law and Society	X	
Mass Communication	X	
Advertising Option	X	
Broadcast Option	X	
Journalism Option	X	
Photojournalism Option	X	
Public Relations Option	X	
Music		X
Liberal Arts Option	X	
Performance Option	X	
Philosophy		X
Political Science		X
Option A: General	X	
Option B: International Studies	X	
Professional Studies		X
General Option	X	
Aviation Maintenance Management Option	X	
Psychology		X
Option A	X	
Option B	X	
Public Administration	X	X

Bachelor of Arts (cont.)	Major	Minor
Sociology	X	X
Sociology: Gerontology Option		X
Spanish	X	X
Studio Art		X
Theatre Arts	X	X
Women's Studies		X

Bachelor of Science	Major	Minor	Teaching Major	Teaching Minor	Non-teaching Minor
Art			X		
Communication Arts and Literature			X		
English				X	
French			X	X	
German			X	X	
Music		X	X		
Music / Business Emphasis	X				
Paralegal					
Option A	X				
Option B	X				
Social Science/History			X		
Social Work	X				
Sociology: Criminal Justice					
Corrections Option	X				
Law Enforcement Option	X				
Spanish			X	X	

Master of Arts
English

Master of Science
English

NOTE: See GRADUATE BULLETIN for information on graduate programs.

Departments

Art, Communication Studies, English, Foreign Language, History and Paralegal, Mass Communication, Music, Philosophy, Political Science, Psychology, Sociology and Social Work, Theatre and Dance, Special Programs: Honors Program

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 for faculty members:

- 1) Providing a broad array of quality programs in the liberal arts and related professional fields.
- 2) Providing the majority of the general education curriculum to all WSU students.

The specific missions for the College of Liberal Arts are:

1. Develop a depth of knowledge in a primary liberal arts discipline.
2. Develop breadth through knowledge and appreciation of the arts, humanities and social sciences beyond one's primary discipline.
3. Provide an intellectual, social and cultural atmosphere for the development of self-education and life-long learning.
4. Make individuals aware of the rights and responsibilities they have to themselves and a democratic society.
5. Prepare individuals to meet the career challenges of a rapidly changing and multicultural society.
6. Contribute to the development of basic and applied knowledge in the liberal arts fields.

Career Opportunities

The opportunities for career education within the College of Liberal Arts are many and varied.

The B.A. degrees in all the College's disciplines provide opportunities for employment or preparation for advanced degree work in those areas.

B.S. (Teaching) degrees educate students for careers in teaching 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, public administration and social work.

Equally important in career planning is the fact that a liberal arts education provides students with career skills that are useful in many professions not listed above but including business, law and medicine. These skills have general applicability, and they 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 about internships.

Scholarships

In addition to general university scholarships, several departments have scholarships for students majoring in these areas. Such scholarships are available in art, music, sociology/social work, theatre and forensics. Contact the appropriate department for more details.

Faculty

Over 60 percent of the liberal arts faculty members 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 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.

COLLEGE OF NURSING AND HEALTH SCIENCES

Timothy M. Gaspar, Dean
Stark Hall, Room 301A; (507) 457-5122

Degrees offered by the College

<i>Bachelor of Science</i>	<i>Major</i>	<i>Teaching Major</i>
<i>Health and Human Performance:</i>		
<i>Exercise Science:</i>	X	
<i>Athletic Training Option</i>	X	
<i>Cardiopumnlunary Rehabilitation Option</i>	X	
<i>Work Site Health Promotion Option</i>	X	
<i>School and Community Health Education</i>	X	X
<i>School and Community Health/Public Administration Option</i>	X	
<i>Nursing:</i>		
<i>Nursing - Generic Option</i>	X	
<i>Nursing - RN Option</i>	X	

Master of Science

The College of Nursing and Health Sciences offers a Master of Science degree in Advanced Practical Nursing. There are four focus areas from which students can choose:

- Nursing Administrator*
- Nursing Educator*
- Clinical Nurse Specialist*
- Adult or Familiy Nurse Practitioner*

Departments

Nursing, Health and Human Performance

Mission

The College provides quality undergraduate and graduate programs in nursing and the health sciences. These programs are designed to graduate caring, ethical, competent and progressive professionals who are sensitive to diversity and prepared to work with clients through health promotion, prevention of health problems and care during illness. In addition to its professional programs, the College seeks to promote health awareness at WSU. The College's educational environment supports lifelong wellness in the individual, the University, the community and global society.

COLLEGE OF SCIENCE AND ENGINEERING

Nancy Jannik, Dean
Stark Hall, Room 201A; (507) 457-5585

Degrees offered by the College

<i>Bachelor of Arts</i>	Major	Minor	Teaching Major	Teaching Minor
Biology		X		
Mathematics	X	X		
<i>Bachelor of Science</i>				
Airway Science/Aviation		X		
Biology		X		
Allied Health Option	X			
Cell and Molecular Option	X			
Ecology Option	X			
Environmental Science Option	X			
Biochemistry		X		
Chemistry			X	X
Option A	X	X		
Option B	X	X		
Environmental Science Option	X			
Composite Materials Engineering				
Chemical Option	X			
Mechanical Option	X			
Computer Science		X		
Option A - Computer Science	X			
Option B - Computer Information Systems	X			
Cytotechnology	X			
Earth Science			X	
Electronics		X		
Geoscience		X		
Environmental Science Option	X			
Geology Option	X			
Water Resources Management Option	X			
Life Science			X	
Mathematics: Secondary Teaching			X	
Mathematics: Statistics Option	X	X		
Medical Technology	X			
Physical Science			X	
Physics	X	X		
Applied Nuclear Science Option	X			
Electronics Option	X			

NOTE: See GRADUATE BULLETIN for information on graduate programs.

Departments

Biology, Chemistry, Computer Science, Engineering, Geoscience, Mathematics and Statistics, Physics

Mission

The 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 WSU students. In fulfilling that mission, the College offers four-year curricula leading to the Bachelor of Arts, Bachelor of Science or Bachelor of Engineering degrees.

The College also serves students intending to transfer to other institutions for professional programs or post-graduate study after meeting some or all of their pre-professional requirements at WSU.

Research and Community Service

The College supports student and faculty research, industrial interaction and community service. To further these goals, the College has established centers under faculty supervision which provide unique student employment opportunities in "real-world" research and problem-solving:

Southeast Minnesota

Analytical Service (SEMAS)

SEMAS serves local and regional cities, counties, businesses and corporations that need analytical testing of water, industrial products and chemicals. Chemistry majors work year-around in the SEMAS as laboratory technicians and assistants.

Center for Applied Statistics and Process Improvement (CASPI)

CASPI provides 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)

COMTEC tests manufactured materials and products for numerous local and regional companies needing quality assurance and specification testing. The Center also serves as a working laboratory for instruction and engineering research.

Educational Technology Center (ETC)

The Educational Technology Center assists educators in using state-of-the-art educational technology to enhance interactive learning. The ETC supports not only WSU faculty and teacher education majors, but also local and regional K-12 schools. It is organized within the Physics Department.

Larger River Studies Center (LRSC)

The LRSC provides students with the opportunity to conduct research on large river ecosystems and associated bodies of water. The LRSC also is responsible for disseminating information about the upper Mississippi River and other large river ecosystems to local, regional and scientific communities. It is administered through the WSU Biology Department.

Southeastern Minnesota

Water Resources Center

The Southeastern Minnesota Water Resources Center facilitates continuing development and implementation of water resource planning in WSU's service region. The Center gathers, stores and processes data related to groundwater and surface water, and makes the data available to governmental agencies throughout the southeastern part of the state. It is administered through the WSU Geoscience Department.

Internships

Students are encouraged to include internships as part of their course of study. Internships provide valuable work experience with potential employees such as governmental agencies or corporations. Most internships are taken in the senior year under a WSU faculty member's supervision.

Program Prerequisites

All degree programs in the College assume that students have taken proper college preparatory courses in high school including at least three years of mathematics. It is 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 WSU during students' academic careers.

ACCOUNTING

Somsen Hall, Room 323A, (507) 457-5860
Hurley (Chairperson), Bergin, Briggs, Ihrke, Sallee, Schneider.

Faculty

J. Lawrence Bergin, Professor, Accounting; B.S., M.B.A., Northeastern University; Ph.D., Kent State University; 1981 -
Brian Briggs, Associate Professor, Accounting; B.S., University of Connecticut; M.S., Northeastern University; March, 1979 -
James F. Hurley, Associate Professor, Accounting; B.S., M.A., Ph.D., University of Nebraska; 1983 -
Frederic Ihrke, Professor, Accounting; B.S., Bemidji State University; M.B.T., University of Minnesota-Twin Cities; J.D.,
William Mitchell College of Law; 1981 -
Larry Sallee, Professor, Accounting; B.S., University of Wisconsin-Superior; M.B.A., University of Wisconsin-La Crosse;
D.B.A., U.S. International University; Certified Public Accountant (CPA); Certified Management Accountant (CMA);
1985 -
Richard Schneider, Professor, Accounting; B.B.A., Wisconsin State University-Eau Claire; M.S., Arizona State University;
Certified Public Accountant (CPA), 1974-80; 1981 -

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

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 P/NC basis. Please check with the instructor prior to enrolling in the course.

Graduation Requirements

1. Complete all coursework and satisfy all other WSU requirements for a B.S. in Accounting.
2. Complete a minimum of 15 credit hours of 300/400-level ACCT courses at WSU.
3. Achieve a grade of "C" or better in each course listed below under "B.S. Major-Accounting".
4. At either the beginning or end of the last semester of undergraduate work, have a minimum of both a 2.50 overall GPA and a 2.50 in ACCT courses.
5. A minimum of 50% of the College of Business credits required for the Accounting Major must be completed at WSU.
6. Sixty-four non-business credits are required for the Accounting major. The statistics (six semester credits maximum), and economics courses (nine semester credits maximum) required for the Accounting Major may be counted toward the 64 non-business credits.

B.S. MAJOR - ACCOUNTING

79 - 80 S.H. (No Minor Required)

REQUIRED COURSES (70-71 S.H.)

Accounting (31 s.h.)

- 211 Financial Accounting Principles (3)
- 212 Managerial Accounting Principles (3)
- 220 Accounting Computer Applications (3)
- 311 Intermediate Accounting I (4)
- 312 Intermediate Accounting II (3)
- 330 Accounting Information Systems (3)
- 361 Intermediate Man./Cost Accounting (3)
- 413 Advanced Financial Accounting (3)
- 421 Introduction to Taxation (3)
- 471 Auditing I (3)

Economics/Finance (9 s.h.)

- * ECON 201 Principles of Microeconomics (3)
- * ECON 202 Principles of Macroeconomics (3)
- FIN 360 Business Finance (3)

Business Administration (24 s.h.)

- DIS 220 Business Statistics (3)
- DIS 320 Intermediate Business Statistics (3)
- BUSA 301 Business Law I (3)
- BUSA 311 Business Law II (3)
- MGMT 325 Organizational Dynamics (3)
- DIS 362 Management Informational Systems (3)
- MGMT 495 Strategic Management (3)
- POM 334 Production and Operations Management (3)

Marketing (3 s.h.)

- 300 Principles of Marketing (3)

Math (3-4 s.h.)

- * 140 Applied Calculus (3) OR 160 Calculus I (4)

ELECTIVES (9 S.H.)

- Any ECON Elective (3)
- 300/400-Level ACCT electives (6)

* Course may be used to satisfy certain general education requirements.

B.S. MINOR - ACCOUNTING

22 S.H.

REQUIRED COURSES (19 S.H.)

- ACCT 211 Financial Accounting Principles (3)
- ACCT 212 Managerial Accounting Principles (3)
- ACCT 220 Accounting Computer Applications (3)
- ACCT 311 Intermediate Accounting I (4)
- ACCT 421 Introduction to Taxation (3)
- BUSA 291 Legal Environment of Business (3) OR
- BUSA 301 Business Law I (3)

ELECTIVES (3 S.H.)

Any Accounting course

Accounting Course Descriptions

Accounting majors must earn a "C" or better in accounting prerequisite courses in order to take the next course. All courses are offered each semester unless otherwise noted.

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicums. The P/NC option is available to non-majors unless otherwise noted.

211 - Financial Accounting Principles—3 S.H.

Quarter Course: 201, part of 202.

Study of topics in financial accounting including the accounting cycle, forms of business organizations, assets, liabilities, owner's equity, and financial statement preparation and analysis. Examples are drawn from service, merchandising and manufacturing organizations. Prerequisite: WSU math proficiency.

212 - Managerial Accounting Principles—3 S.H.

Quarter Course: Part of 202, 203.

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. Additional topics may include the Statement of Cash Flows and financial statement analysis. Prerequisite: ACCT 211.

220 - Accounting Computer Applications—3 S.H.

"Hands-on" experience with Excel, Power Point, and "real world" accounting applications software, including significant work with a general ledger package. Prerequisite: ACCT 211.

311 - Intermediate Accounting 1—4 S.H.

Quarter Course: 301, part of 302.

Major emphasis on financial accounting. Review of basic financial statements. Development of accounting principles and procedures related to assets (cash, receivables, investments, inventories, plant and equipment, intangibles, and the time value of money).

Prerequisite: ACCT 212. Additional prerequisites or concurrent enrollment in ACCT 220. Not open to students in their first year of college study.

312 - Intermediate Accounting 2—3 S.H.

Quarter Course: Part of 302, 303.

Development of accounting principles and procedures related to liabilities, owner's equity, revenue recognition and special topic areas such as pensions and leases. Prerequisite: ACCT 311.

330 - Accounting Information Systems—3 S.H.

Quarter Course: 350.

A study of the principles underlying the design and installation of accounting systems and survey of methods of processing data, with an emphasis on internal control. Prerequisite: ACCT 311 and DIS 362.

340 - Governmental and Other Not-For-Profit Accounting—3 S.H.

Quarter Course: 345.

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 211.

361 - Intermediate Managerial/Cost Accounting—3 S.H.

Quarter Course: 440.

Cost accounting fundamentals including long-term planning, control, cost allocation, quantitative analysis and behavioral considerations in systems design. Prerequisite: ACCT 212 and ECON 201.

380 - Topics and Issues in Accounting—1-3 S.H.

Quarter Course: 327.

An analysis of current topics, trends, issues and software relevant to the milieu of accounting. The subject matter can vary by semester and is typically announced in advance by the instructor. This course may be repeated as topics change. Prerequisite: instructor's permission. Not offered every year.

398 - Internship—I-7 S.H.

Credits are not counted in the Accounting major, but as general elective credits. Prerequisite: concurrent enrollment in ACCT 399. P/NC only.

399 - Internship Problem—I-3 S.H.

Prerequisite: minimum 2.50 GPA and instructor's permission. The student should have substantially completed the College of Business core courses, Intermediate Accounting 1 and other specific accounting courses depending on the type of internship. See the Department Internship Coordinator for specific requirements.

Grade only. Credits may only be counted as general elective credits.

413 - Advanced Financial Accounting—3 S.H.

Quarter Course: 442.

The course includes the study of business combinations resulting from acquisitions of assets or stock, foreign currency transactions and partnership accounting. Prerequisite: ACCT 312.

414 - Advanced Financial Accounting Topics—3 S.H.

Quarter Course: 443.

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 312. Not offered every year.

416 - Accounting Theory—3 S.H.

Quarter Course: 446.

A study of the foundations, statements, analyses and evolution of the various accounting theories including those by the FASB, AICPA, AAA, IMA 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 312. Not offered every year.

421 - Introduction to Taxation—3 S.H.

Quarter Course: 407.

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 computer is also a significant component of the course. Prerequisite: ACCT 212 and ECON 202. Grade only.

422 - Advanced Taxation—3 S.H.

Quarter Course: 409.

A study of the federal tax law applicable to C corporations, S corporations, 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 also are stressed in the course. Prerequisite: ACCT 421. Grade only. Offered yearly.

423 - Tax Planning—3 S.H.

Quarter Course: 425.

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 421 or instructor's permission. Not offered every year.

424 - International Taxation—3 S.H.

Quarter Course: 429.

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. Not offered every year.

462 - Advanced Managerial/Cost Accounting—3 S.H.

Quarter Course: 441.

An in-depth study of advanced topics in cost planning and control. A review of cost and managerial accounting literature and research. Prerequisite: ACCT 361. Offered yearly.

471 - Auditing 1—3 S.H.

Quarter Course: 411.

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. Prerequisite: ACCT 220, ACCT 312 and DIS 220.

472 - Auditing 2—3 S.H.

Quarter Course: 413.

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 471. Not offered every year.

490 - Independent Studies in Accounting—I-3 S.H.

Quarter Course: 480.

Offers the advanced student an opportunity to do additional reading and/or research in areas of special interest. Prerequisite: instructor's permission. Total credits may not exceed 6.

ADMINISTRATIVE INFORMATION SYSTEMS

(Business Education-Teaching)

Somsen Hall, Room 319, (507) 457-5165

J. Karjala (Chairperson), S. Eiken, B. Murphy.

Faculty

Shirley Eiken, Professor; B.A., Luther College; M.S., Winona State University; Ed.D., University of Northern Colorado; 1966-

Jeanette Karjala, Professor; B.A., M.A., Western Washington University, Bellingham; Ph.D., University of North Dakota (ND); 1992 -

J. William Murphy, Professor; B.S.Ed., M.S.Ed., Arkansas State University; Ed.D., Memphis State University; 1989 -

The Department prepares students to meet the professional requirements for teaching business education subjects at middle, secondary, and post-secondary schools. In addition, a core of courses in business equips students for business careers. A minor in training and development provides students with knowledge and skills to become trainers in business or institutional training and development settings.

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 designed specifically with a balanced curriculum of general knowledge and specialized skills.

The following program alternatives are available to students:

Bachelor of Science: Business (Teaching)

Bachelor of Science: Training and Development Minor

Graduation Requirements

- Completion of all course work required for the major.
- 2.50 Overall Grade Point Average in Major.
- 2.75 minimum overall Grade Point Average

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. Students' transcripts are evaluated by AIS faculty. (Refer to the section in this catalog about transfer of vocational credits.) This transfer policy applies only to students majoring in business (teaching).

Teaching Majors

The AIS Department recommends for student teaching only those students who have a minimum 2.75 overall GPA and a 2.5 GPA in the major. See admission requirements for Teacher Education.

Pass/No Credit Courses

No courses in the Department are open to declared majors and minors on a P/NC basis except internships.

B.S. MAJOR BUSINESS (Teaching)

64 S.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 see the Education section of this catalog.

REQUIRED COURSES (60 S.H.)

Administrative Information Systems (36 s.h.)

- 203 Document Production and Procedures (3)
- 215 Personal Finance (3)
- 218 Job Search Strategies (2)
- 320 Publication Design and Presentation Technology (3)
- 330 Business Information Processing (3)
- 333 Business Communication (3)
- 335 Information Resource Management (3)
- 340 Integrated Information Systems Applications (3)
- 360 Interpersonal Business Relations (3)
- 401 General Methods (2)
- 402 Basic Business Teaching Methods (1)
- 403 Keyboarding Teaching Methods (1)
- 404 Administrative Information Teaching Methods (1)
- 405 Accounting Teaching Methods (1)
- 435 Information Systems/Personnel Management (3)
- 490 Capstone Seminar (1)

Accounting (6 s.h.)

- * 211 Financial Accounting Principles (3)
- * 212 Managerial Accounting Principles (3)

Economics and Finance (9 s.h.)

- * ECON 201 Principles of Microeconomics (3)
- * ECON 202 Principles of Macroeconomics (3)
- FIN 360 Corporate Finance (3) OR
- * FIN 201 Introduction to Finance (3)

Business Administration (3 s.h.)

- 291 Legal Environment of Business (3)

Marketing (3 s.h.)

- 315 Principles of Marketing (3)
- 441 Training Techniques and Media (3)

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

ELECTIVES (7 S.H.)

Administrative Information Systems

- 336 Information Services Seminar (1)
- 350 Quality of Work Life (3)
- 410 Administrative Communication (3)
- 412 Team Building (1-3)
- 440 Training and Employee Development (3)
- 441 Training Techniques and Media (3)
- 470 Seminar in Training and Education for Business (1)

B.S. MINOR -

TRAINING AND DEVELOPMENT

24 S.H.

REQUIRED COURSES (15 S.H.)

Administrative Information Systems (9 s.h.)

- 410 Administrative Communication (3)
- 440 Training and Employee Development (3)
- 441 Training Techniques and Media (3)

Education (3 s.h.)

- 442 The Adult Learner (3)

Management (3 s.h.)

- **427 Management Development (3)

**See catalog for prerequisites.

**Business Education (teaching) and Training & Development minors meet prerequisites with AIS 335 and 435.

FOUNDATION REQUIREMENTS (9 S.H.)

- AIS 320 Business Information Processing (3) OR
- DIS 202 Microcomputers in Business (3)
- AIS 360 Interpersonal Business Relations (3)
- AIS 435 Information Systems/Personnel Management (3) OR
- MGMT 317 Management of Human Resources (3)

Administrative Information Systems

Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicums. The P/NC option is available to non-majors unless otherwise noted.

201 - Keyboarding-2 S.H.

Beginning keyboarding proficiency as a basic skill for computer-related communications, keyboarding mastery, proofreading and skill building. Not open to students who have successfully completed a high school keyboarding course. Offered each semester.

202 - Introduction to Word/Information Processing-3 S.H.

Quarter Courses: 107, 202.

Knowledge and application of word processing, spreadsheet and database software for personal use. Includes problem-solving and production using integrated software. Prerequisite: AIS 201 or equivalent. Offered yearly.

203 - Document Production and Procedures-3 S.H.

Advanced production problems with speed and technique development using word processing software. Includes introduction to windows, internet, and e-mail. Prerequisite: AIS 202 or equivalent. Offered yearly.

215 - Personal Finance-3 S.H.

For all students. Units focus on the major personal financial planning problems that individuals and families encounter. Emphasis on using the activity involved with personal financial planning as a framework for developing effective money management practices. Consumer units include budgets, banking, tax strategies, investments, credit, insurance, real estate, interest, pensions, and estate and retirement planning. Offered yearly.

218 - Job Search Strategies-1-2 S.H.

An examination of job search strategies with emphasis on the written and oral communications necessary to market one's potential. Special focus on developing a competitive resume, effective job application correspondence, follow-up correspondence and interviewing techniques. Offered each semester.

320 - Publication Design and Presentation Technology-3 S.H.

Design principles for print-based documents and computer-generated output such as presentations. Presentation software and word processing software with publishing features will be used to graphically enhance materials for more effective communication. Offered yearly.

330 - Business Information Processing-3 S.H.

The fundamental concepts of databases and spreadsheets. Provides a vocabulary and understanding of computers in business, including business applications software. Offered yearly.

332 - Business Report Writing-1-2 S.H.

Principles and practices for effective written reports. Emphasis on a functional writing style applied to routine, periodic and analytical reports. Includes formal reports based on secondary and primary research methods. Offered each semester.

333 - Business Communication-3 S.H.

The application of a functional writing style to produce effective business communications: memos, correspondence, and short informal reports. Includes basics of communication management, communication technology, intercultural business communication and collaborative organizational writing. Offered each semester.

335 - Information Resource Management-3 S.H.

Quarter Course: 334, 335.

A study of information and image media systems, and the structures and functions related to the planning, controlling, organizing and leadership activities of the information and image systems manager. Image media as information storage include paper, micrographics, computer-output microfilm, electronic and other forms of information generation, recording, and storage. Focuses on image technology, computer-based records management systems, archival management, forms design, control policies and procedures, legal retention requirements, disaster prevention and recovery, information value and security, and information as a critical organizational asset. Offered yearly.

336 - Information Services Seminars-1 S.H.

A series of seminars to include such topics as time management, administrative workplace layout, interpersonal relations, microcomputer applications in the administrative area, active listening, and applied problem-solving.

340 - Integrated Information Systems Applications-3 S.H.

Information management systems concepts for the user and/or designer of information systems; systems analysis design system outputs, inputs, data files, methods and procedures, and systems and procedures analysis. Includes software applications. Overview and introduction to networking technologies, foundations of local area networks. Prerequisite: AIS 202 or equivalent. Offered yearly.

350 - Quality of Work Life-3 S.H.

Focuses on a quality of work life approach to diversity in the workplace including gender, cultural, age, social, racial and ethnic differences. Examines professional and interpersonal dynamics within organizational cultures, human resource values and politics. Includes leadership styles and career enhancement strategies. An experiential approach to attitudinal and professional development. Offered alternate years.

360 - Interpersonal Business Relations-3 S.H.

Confronting and coping with interpersonal problems specific to the business 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.

397 - Information Services Internship-3 S.H.

Practical administrative management work experience in a supervised workplace setting. Contact AIS Department chairperson for requirements. Applies to administrative information systems major requirements. Offered each semester. P/NC only.

398 - Training & Development Internship-3 S.H.

An on-the-job supervised work experience in training and development. Contact AIS Department chairperson for requirements. Offered each semester. P/NC only.

399 - General Internship-1-6 S.H.

On-the-job supervised work experience in administrative information systems. Credit applies to general electives, not to administrative information systems major credits/requirements. Contact AIS Department chairperson for requirements. Offered each semester. P/NC only.

401 - General Methods-2 S.H.

A course for business teacher preparation in the methods and materials of business education. Topics include philosophical foundations of business education, general curriculum trends, and instructional design. Open only to AIS Department teaching majors. Recommended prerequisites: EDUC 301 and EDUC 302. Offered alternate years. Grade only.

402 - Basic Business Teaching Methods-1 S.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. Open only to AIS Department majors/minors. Recommended prerequisites: EDUC 301 and EDUC 302. Offered alternate years. Grade only.

403 - Keyboarding Teaching Methods-1 S.H.

A study of teaching strategies for keyboarding instruction. Teaching practices are related to theories of learning and the psychology of skillbuilding. Techniques of planning, classroom management, motivation, evaluation and grading; the utilization of keyboarding software packages. Open only to AIS Department majors/minors. Recommended prerequisites: EDUC 301 and EDUC 302. Offered alternate years. Grade only.

404 - Administrative Information Teaching Methods-1 S.H.

A study of methods, materials, strategies, and theories related to teaching administrative information systems subjects. Emphasis is placed on planning, testing, grading and teaching procedures as they relate to the electronic administrative support work areas. Open only to AIS Department majors/minors. Recommended prerequisites: EDUC 301 and EDUC 302. Offered alternate years. Grade only.

405 - Accounting Teaching Methods-1 S.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. Open only to AIS Department majors/minors. Recommended prerequisites: EDUC 301 and EDUC 302. Offered alternate years. Grade only.

410 - Administrative Communication-3 S.H.

Leadership communication for personnel at all organizational levels. A balanced emphasis between written and spoken communication includes such topics as persuasive proposals, case analysis and writing, meeting management, the visual briefing and multi-media and communication technology applications. Prerequisites: AIS 320, ENG 115, CMST 191 or instructor's permission. Offered yearly.

412 - Team Building-1-3 S.H.

Introduces teamwork concepts and skills as a collaborative approach to improved performance. Covers structural and process attributes of teams with the objective of enhancing team leader and participant effectiveness; focuses on designing and implementing an effective system blending individual and team performance. Team participation skills applied to collaborative class activities. Offered yearly.

434 - Word/Information Processing for Paralegals-3 S.H.

Knowledge of word/information processing in the paralegal profession. Includes information processing software and legal research using the Internet. Prerequisite: basic keyboarding proficiency. Offered yearly. Grade only. Not open to AIS majors.

435 - Information Systems/Personnel Management-3 S.H.

Quarter Courses: 433, 435.

The study of effective management for the information function in organizations and principles of administrative personnel management. Focuses on the feasibility, design, justification, implementation and evaluation of administrative information systems. Administrative policies and procedures applied to personnel issues, recruitment and hiring, performance appraisal, employee productivity, and managerial communication. Prerequisite: AIS 330. Offered yearly.

440 - Training and Employee Development-3 S.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: reassessment, needs analysis, design implementation and evaluation. Includes the principle of instructional design using the experiential learning approach. Offered yearly.

441 - Training Techniques and Media-3 S.H.

Instructional techniques, methods and multimedia to use for effective employer-based learning delivery systems. Topics include trainer 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 yearly.

470 - Seminar in Training and Education for Business-1-3 S.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.

480 - Independent Studies in Training and Education for Business-1-3 S.H.

Reading and/or research in relevant areas of a student's special interest. Prerequisite: instructor's permission.

490 - Capstone Seminar-1 S.H.

A synthesis of major course work and internship experiences for seniors in AIS programs. A comprehensive analysis and compilation of students' learning outcomes; a culminating experience and evaluation of indicators that demonstrate students' success in achieving program learning outcome goals. Offered yearly.

ART

Watkins Hall, Room 204, (507) 457-5395
Plummer, (Chairperson), Park, Ricciotti, Schmidlapp

Faculty

Sebo Park, Professor; M.A.T., Whitworth College; M.F.A., Ph.D., University of Minnesota-Twin Cities; 1988 -
Anne Scott Plummer, Associate Professor; B.F.A., Rhode Island School of Design; M.F.A., Claremont Graduate School; 1990 -
Dominic Ricciotti, Professor; B.F.A., Washington University, St. Louis; M.A., City University of New York-Hunter College;
Ph.D., Indiana University; 1985 -
Don L. Schmidlapp, Professor; B.F.A., University of Kansas; M.F.A., Indiana University; 1981 -

The Department of Art offers two degree programs: the Bachelor of Arts degree is primarily studio-oriented; the Bachelor of Science degree in Art Teaching leads to eligibility for teacher certification in the State of Minnesota for grades K-12.

Courses are numbered sequentially and should be taken accordingly, within areas of study. All art courses beyond the 100-level have prerequisites that 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 that introduce them to basic visual problems. These courses allow art majors to begin identifying their individual potentials for continued study, and they prepare students for advanced work.

During their final two years, students complete courses in specialized, media areas of the art curriculum. These offer more intensive experiences, in consideration of the student's capabilities and interests. Each successive course in a given media area builds upon earlier achievements; instruction becomes more individualized as students search for more personal means of expression.

Studio and classroom instruction at all levels is enhanced by the changing series of exhibitions in Watkins Gallery and the student gallery, and by presentations by visiting artists and guest lecturers. Majors and minors, as well as interested non-majors, are urged to join the regularly scheduled field trips to art museums and galleries in nearby cities, organized by both faculty and the student Art Club.

Advising

Each student major meets regularly with 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 before registration each semester. Suggested course programs for each semester of the student's four-year residency are available from all art advisors and from the art office.

New and transfer students are encouraged to attend the advising and orientation meeting in the fall semester. This meeting presents information critical to a successful college career in Art.

Transfer Students

Art majors transferring from other institutions must complete a minimum of 16 s.h. in art in residence at WSU at the upper division (300/400-level classes).

Minimum Grade Point Averages

There is no minimum GPA to enter Art Programs. In order to graduate with a major in art, B.A. students must earn a minimum grade of "C" in each studio art course and have a GPA of 2.50 in all studio and art history courses and a 2.50 overall GPA. Teaching majors in the B.S. program must maintain a 2.75 overall GPA and a 2.75 GPA in all art education, studio and art history courses.

Junior Portfolio Review

Art majors in both degree programs during their third year of study submit for review a group of works completed thus far. This provides the art faculty with a means of assessing the overall quality of student performance and to make recommendations for the student's final year of study. Majors neglecting to comply with the review shall not graduate with an art degree. For more specific information about this requirement, majors should attend the advising/orientation meeting in the fall of each year and consult with their advisors.

Senior Exhibitions

Art majors enroll in Senior Seminar (ART 444) as they prepare work for the department's capstone exhibitions featuring the accomplishments of graduating seniors in both degree programs. These exhibitions are held in Watkins Gallery each spring. One show includes work by all seniors. Students compete to participate in the select senior show(s). For these show(s), the art faculty chooses a small number of students based on superior achievement. Each of these students exhibits a larger number of works than possible in the all-senior exhibition.

Pass/No Credit Courses

The P/NC option for art courses is not available to Art majors and minors. Other students may elect this option for all art classes. However, all prerequisites must be met before a student enrolls in a particular course.

B.A. MAJOR - ART

48 S.H. (No Minor Required)

REQUIRED COURSES (33 S.H.)

- 114 2-D Design (3)
 - 115 3-D Design (3)
 - 118 Drawing I (3)
 - 217 Painting I (3)
 - 218 Drawing II (3)
 - 221 Art History I (3)
 - 222 Art History II (3)
 - 228 Sculpture I (3)
 - 439 Later 20th Century Art (3)
 - 444 Senior Seminar (3)
- (Senior Seminar must be repeated for a total of 6 s.h.)

ELECTIVES (15 S.H.)

Majors must elect one 400-level Art History course (3 s.h.) beyond the required 439.

The remaining electives (12 s.h.) are to be divided equally between two areas of concentration (6 s.h. each), as follows:

Art History: any two Art History classes (above the 100-level) in addition to 439 and the required elective course (6 s.h.)

- 311 Graphic Design I (3) and 411 Graphic Design II (3)
- 317 Painting II (3) and 417 Advanced Painting (3)
- 318 Advanced Drawing I (3) and 418 Advanced Drawing II (3)
- 320 Ceramics I (3) and 420 Ceramics II (3)
- 328 Sculpture II (3) and 428 Advanced Sculpture (3)
- 330 Printmaking I (3) and 430 Printmaking II (3)

NOTE: Instead of two sequences, majors may — in consultation with their advisors — choose an extended sequence in a single medium, except in Art History, by repeating twice the 400-level course in the chosen medium for a second full year of study. The extended sequence also may include Independent Study (433) in the same medium.

B.S. MAJOR - ART (Teaching)

51 S.H. (No Minor Required)

The teaching major prepares graduates for Minnesota certification in art (K-12) and 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 in this catalog.

REQUIRED COURSES (45 S.H.)

- 114 2-D Design (3)
- 115 3-D Design (3)
- 118 Drawing I (3)
- 120 Ceramics I (3)
- 217 Painting I (3)
- 218 Drawing II (3)
- 221 Art History I (3)
- 222 Art History II (3)
- 228 Sculpture I (3)
- 300 Elementary Art Education (3)
- 402 Psychology of Art and Art Education (3)
- 410 Secondary Art Education (3)
- 412 Multimedia Crafts (3)
- 439 Art Since 1945 (3)
- 444 Senior Seminar (3)

ELECTIVES (6 S.H.)

Majors elect a two-course sequence in one of the following areas:

Art History: any two Art History classes (above the 100-level) in addition to the required 439 (6 s.h.)

- 311 Graphic Design I (3) and 411 Graphic Design II (3)
- 317 Painting II (3) and 417 Advanced Painting (3)

- 318 Advanced Drawing I (3) and 418 Advanced Drawing II (3)
- 320 Ceramics I (3) and 420 Ceramics II (3)
- 328 Sculpture II (3) and 428 Advanced Sculpture (3)
- 330 Printmaking I (3) and 430 Printmaking II (3)

B.A. MINOR - STUDIO ART

21 S.H.

REQUIRED COURSES (15 S.H.)

- 114 2-D Design (3)
- 115 3-D Design (3)
- 118 Drawing I (3)
- 221 Art History I (3)
- 222 Art History II (3)

ELECTIVES (6 S.H.)

Any art or art history course above the 100-level may be chosen to complete the six semester hours, providing prerequisites are met.

B.A. MINOR - HISTORY OF ART

24 S.H.

The History of Art minor is a program of study with a focus on the art of the nineteenth and twentieth centuries in Europe and America.

REQUIRED COURSES (12 S.H.)

- 221 Art History (3)
- 222 Art History II (3)
- 224 American Art (3)
- 439 Later 20th-Century Art (3)

ELECTIVES (12 S.H.)

At least two of the following three courses (6-9 s.h.)

- 435 Italian Renaissance Art (3)
- 436 19th-Century Art (3)
- 437 Early 20th-Century Art (3)

The remaining elective(s) are to be chosen from one or two of the following groups (3-6 s.h.)

- 433 Independent Study (in Art History) (3)

No more than one of the following studio courses:

- 114 2-D Design (3)
- 115 3-D Design (3)
- 118 Drawing I (3)

No more than one of the following cognate courses in English or History:

- 223 ENG Classical Mythology (3)
- 224 ENG The Bible as Literature (3)
- 120 HIST Western Civilization to 1500 (3)
- 121 HIST Western Civilization 1500-1815 (3)
- 122 HIST Western Civilization 1815 to Present (3)
- 125 HIST Classical History (3)
- 150 HIST United States History to 1865 (3)
- 151 HIST United States History Since 1865 (3)

Art Course Descriptions

All courses in the major, minor, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicums. The P/NC option is available to non-majors unless otherwise noted.

109 - Introduction to Art—3 S.H.

Non-chronological investigation of forms, expressive languages, functions and contexts of the visual arts throughout history up to 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.

114 - 2-D Design—3 S.H.

Introduction to fundamental design concepts in the art process. Experiments and problems in abstract compositions.

115 - 3-D Design—3 S.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.

118 - Drawing I—3 S.H.

Quarter Course: 118 and 218.

An examination of fundamental concepts in the art of drawing, while students acquire basic studio skills. This course develops visual perception, aesthetic judgment and sound studio practice.

120 - Introduction to Ceramics—3 S.H.

Quarter Course: 220.

An introduction to basic ceramic techniques for non-Art majors or minors.

128 - Introduction to Sculpture—3 S.H.

An introduction to basic sculpture techniques for non-Art majors or minors.

135 - Introduction to Watercolor—3 S.H.

Quarter Course: 212.

Painting with watercolor and other water-soluble materials, used alone or in combination. Prerequisites: ART 114 and ART 118 or instructor's permission.

217 - Painting I—3 S.H.

Quarter Course: 217 and 317.

Beginning studio practice in oil and/or acrylic media. Students explore basic problems of form and space on a two-dimensional surface using traditional and contemporary methods. Visual analysis of historic and contemporary work is employed extensively in this course and is designed to broaden and facilitate the examination of form and technique in painting. Prerequisites: ART 114 and ART 118.

218 - Drawing II—3 S.H.

Quarter Course: 218 and 318.

Continued experience in drawing in a variety of media with emphasis upon thematic problems and on the human figure. Grade only.

221 - Art History I—3 S.H.

Quarter Course: 221 and 222.

The first of two courses in a year-long survey of the history of art, beginning with the Prehistoric Era and continuing through Antiquity and the Middle Ages. Emphasis on the formal and cultural foundations of Western Art. Grade only.

222 - Art History II—3 S.H.

Quarter Course: 223 and 222.

The second half of the year-long survey of the history of art extends from the Renaissance period through the modern age. The survey concludes with developments just prior to World War II. Prerequisite: ART 221. Grade only.

224 - American Art—3 S.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 art traditions as indicative of national experience. Grade only.

228 - Sculpture I—3 S.H.

Introduction to sculpture for Art majors and minors. Modeling, carving, fabrication and/or casting techniques used to explore abstract sculptural form as well as forms from nature and the model. Sculptural ideas investigated with the aid of slides, lectures, demonstrations and critiques. Prerequisite: ART 115. Grade only.

252 - Survey of Women Artists—3 S.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. Core disciplinary course for Women's Studies Minor. Grade only.

300 - Elementary Art Education—3 S.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 sensitivities, skills and thinking. Prerequisite: ART 109 strongly recommended; Junior or Senior standing. Student must be admitted to Teacher Education Program in order to register. Grade only.

311 - Graphic Design I—3 S.H.

Quarter Course: 311 and 312.

Introduction to current concepts and practices in graphic design. Fundamentals, skills and creative thinking are emphasized in a series of exercises and problems. Design process, Gestalt principles, typography, types of artwork and layout are examined. Integrated use of Macintosh Computer and graphics software. Prerequisites: ART 114 and MCOM 175. Grade only.

317 - Painting II—3 S.H.

Quarter Course: 317 and 417.

Continued intensive studio practice in oil and/or acrylic media, designed to expand and develop the student's skill and understanding in working with representational and abstract problems of form. Students are encouraged to initiate work in an individual direction and to engage in an ongoing study of relevant historic and contemporary painting, in addition to emerging trends. Prerequisite: ART 217 or instructor's permission. P/NC option.

318 - Advanced Drawing I—3 S.H.

Extensive studio practice in figure drawing. Emphasis in acquiring formal and technical proficiency using the drawing media. Development of the student's personal direction and expression through these media. Prerequisite: ART 218.

320 - Ceramics I—3 S.H.

Quarter Course: 220 and 320.

Introduction to ceramics with an emphasis on clay materials and on handbuilding and wheelthrowing techniques. Both vessel and sculptural concepts are explored with the aid of slides, lectures, demonstrations and critiques. Prerequisite: ART 115.

328 - Sculpture II—3 S.H.

Quarter Course: 328 and 428.

Modeling, carving, fabrication and/or casting techniques are practiced. Students build on previous skills and identify personal aesthetic concerns. Formal and conceptual sculptural issues are explored with the aid of slides, discussions and critiques. Prerequisite: ART 228. Grade only.

330 - Printmaking I—3 S.H.

Quarter Course: 230 and 330.

Introduction to printmaking processes and the creation of "multiple" images. Experimental techniques, conceptualization and studio practice are emphasized. Prerequisites: ART 114 and ART 118. Grade only.

399 - Internship—1-3 S.H.

Work-related experience in appropriate settings such as museums, art centers, commercial offices or studios, and public relations offices. Credit hours to be arranged by a faculty member. May be used as a general art elective. Prerequisite: Junior or Senior standing only. May be repeated to a maximum of 9 credits.

402 - The Psychology of Art and Art Education—3 S.H.

Exploration of topics related to human behavior, and the production and appreciation of visual art forms. The prospective art teachers' understanding of the subject of art and effective instruction for K-12 learners are further concerns. 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, and the evaluation of learning and process with media in studio art. Prerequisites: ART 109 recommended, ART 300 and Junior standing. Grade only.

410 - Secondary Art Education—3 S.H.

An examination of programs in art education at the secondary level. Consideration of curricular and instructional problems related to teaching art in high school, review of research findings and designing exemplary programs in secondary art. Prerequisites: ART 300 and Junior standing. Grade only.

411 - Graphic Design II—3 S.H.

Quarter Course: 413.

Advanced problems in graphic design including advertising and publication design. Skills in conceptualization, illustration, computer applications, and layout/production are emphasized. High level of individual development expected. Portfolio preparation.

Prerequisite: ART 311. Grade only. May be repeated to a maximum of 9 credits.

412 - Multi-Media Crafts for the Classroom—3 S.H.

An intensive and extensive art education laboratory experience affording the prospective art teacher familiarity 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. Prerequisite: ART 300. Grade only.

417 - Advanced Painting—3 S.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 is addressed at this level.

Prerequisite: ART 317. May be repeated to a maximum of 9 credits. Grade only.

418 - Advanced Drawing II—3 S.H.

Quarter Course: 318.

Intensive, individualized studio practice using the drawing media. Further development of the student's personal direction and expression through these media. Prerequisite: ART 318. May be repeated to a maximum of 9 credits.

420 - Ceramics II—3 S.H.

Quarter Course: 420 and 320.

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. Prerequisite: ART 320. May be repeated to a maximum of 9 credits. Grade only.

428 - Advanced Sculpture—3 S.H.

Personal direction and expression are developed using any appropriate sculptural medium. Slides, critiques and readings in contemporary criticism contribute to the production of a cohesive body of work. Prerequisite: ART 328. May be repeated to a maximum of 9 credits. Grade only.

430 - Printmaking II—3 S.H.

Quarter Course: 430 and 330.

Advanced printmaking processes, using a variety of techniques.

Advanced conceptualization and drawing skills are required.

Prerequisite: ART 330. May be repeated to a maximum of 9 credits.

Grade only.

433 - Independent Study—1-3 S. H.

Quarter Course: 436.

To be arranged with an instructor in studio, art history or art education. Prerequisites: to be determined by the instructor; Junior standing. The permission and signature of the instructor, and the departmental stamp is required in order to register. May be repeated to a maximum of 9 credits. Grade only.

435 - Italian Renaissance Art—3 S.H.

The painting and sculpture of Italy from the late Gothic Era to about 1600. The major and some of the secondary schools, together with the innovations and achievements of individual masters, are emphasized. A research paper is required. Prerequisite: ART 222. Grade only.

437 - Nineteenth Century Art—3 S.H.

This course traces the transformations in European and American art beginning with the revolutionary period of the late 18th century. It culminates with the onset of European modernism in the final decades of the 19th century. A research paper is required.

Prerequisite: ART 222. Grade only.

438 - Early Twentieth Century Art—3 S.H.

The historic period of modernist innovation in Europe between 1900 and the World War I era, including American responses, is examined. Concludes with developments up to the outbreak of World War II. A research paper is required. Prerequisite: ART 222. Grade only.

439 - Later Twentieth Century Art —3 S.H.

Emphasis on post-World War II modernism in the United States and on the increasing internationalism, stylistic pluralism and post-modernism marking the final quarter of the 20th century. A research paper is required. Prerequisite: ART 222. Grade only.

444 - Senior Art Seminar—3 S.H.

A broad range of topics is addressed through students' concurrent studio projects, studio critiques, readings in art criticism, discussion of contemporary art including recent or emerging trends and portfolio preparation. Studio projects will be preparing work for the Senior Exhibition(s) which constitute the department's capstone experience. Prerequisite: Senior standing, B.A. and B.S. majors. Must be taken twice during two consecutive semesters for a total of 6 credits.

BIOLOGY

Pasteur Hall, Room 215, (507) 457-5270

Web Address: <http://bio.winona.msus.edu>

Reuter (Chairperson), Bates, Berg, Brako, Dapkus, Delong, Essar, Evenson, Jefferson, Mundahl, Ragsdale (Director of Medical Technology), Richardson, Thompson (Director of Cytotechnology).

Faculty

Kimberly M. Bates, Assistant Professor; B.S., University of Massachusetts-Amherst; M.S., Ph.D., University of Missouri-Columbia; 1997 -

Steven Berg, Professor; B.S., Pacific Lutheran University; Ph.D., Purdue University; 1986 -

Emmanuel Brako, Professor; B.S., Tuskegee University, M.S., Ph.D., Louisiana State University and A & M College; B.V.M., University of Nairobi; 1989 -

David Dapkus, Professor; B.S., M.S., Ph.D., University of Minnesota-Twin Cities; 1974 -

Michael D. Delong, Associate Professor; B.S., University of Southern Mississippi; M.S., Memphis State University (TN); Ph.D., University of Idaho, Moscow; 1992 -

David Essar, Associate Professor; B.S., Ferris State College (MI); M.S., Ph.D., University of Iowa; 1992 -

Kimberly J. Evenson, Assistant Professor; B.S., M.S., North Dakota State University, Fargo; Ph.D., University of Minnesota-Twin Cities; 1995 -

Carol Jefferson, Professor; B.A., St. Olaf College; Ph.D., Oregon State University; 1976 -

Neal Mundahl, Professor; B.A., Winona State University; M.S., Michigan Technological University; Ph.D., Miami University (Ohio); 1989 -

Frances Ragsdale, Associate Professor; B.S. Eastern Oregon State; M.S., Southeastern Louisiana University; Ph.D., University of Idaho, 1993 -

Lawrence Reuter, Professor; B.A., Saint Mary's College of Minnesota; Ph.D., Princeton University; 1979 -

Robin K. Richardson, Associate Professor; B.S., Michigan State University; M.S., Central Michigan University, Mt. Pleasant; Ph.D., University of Oklahoma, Norman; 1992 -

Edward Thompson, Associate Professor; B.A., Macalester College, St. Paul; Ph.D., Medical College of Wisconsin, Milwaukee; 1992 -

Pre-Professional Sequences:

Pre-professional Sequences are not degree programs (e.g. major or minor) at WSU. They are programs that are preparatory for a degree at another college or university. The Pre-Professional Sequences offered through the Biology Department include:

Pre-Dental Hygiene

Pre-Dentistry

Pre-Medicine (Allopathic and Osteopathic)

Pre-Mortuary Science

Pre-Optometry

Pre-Physician Assistant

Pre-Physical Therapy

Pre-Podiatry

Pre-Veterinary Medicine

SEE the Pre-Professional Sequences section for more information about any of these Pre-Professional Sequences.

A person who wishes to study biology at WSU may select one of four options (Allied Health, Cell and Molecular, Ecology or Environmental Science) in the Biology Major. Each of these options leads to a B.S. degree and allows for many career opportunities. One common career path uses the B.S. degree to gain admittance to graduate studies in disciplines such as biology, biochemistry, medicine, physical therapy, dentistry and veterinary medicine. Another frequently followed career path uses the B.S. degree to gain industrial placement in the rapidly expanding bio-industrial and allied health areas, or other more traditional areas such as wildlife and environmental management.

The Biology Department offers a Life Science Major, a program of study which primarily is intended for students who are preparing themselves for teaching at the middle school and secondary levels. Although the Life Science Major is designed specifically for teaching, the degree has sufficient breadth and flexibility to allow many of the same career options as the Biology Major.

The Biology Department provides majors in Medical Technology and Cytotechnology. (See separate program listings under "Medical Technology" and "Cytotechnology" elsewhere in this catalog). Students interested in the Medical Technology and Cytotechnology majors should contact Dr. Ragsdale, Director of Medical Technology, or Dr. Thompson, Director of Cytotechnology, as soon as possible after arriving on campus.

In addition, the Biology Department sponsors a Biology Minor and nine pre-professional programs including Pre-Dental Hygiene, Pre-Dentistry, Pre-Medicine, Pre-Physical Therapy, Pre-Physician Assistant, Pre-Veterinary Medicine, Pre-Mortuary Science, Pre-Optometry, and Pre-Podiatry. (See Pre-Professional Programs section in this catalog).

First-year students in all the various biology majors start with two semesters of Principles of Biology, a year-long course covering the breadth of biology. As sophomores, students take General Ecology, Cell Biology and Genetics. Once this five-course sequence is completed, students begin to take course work which is specific for their chosen options or majors. All upper division elective courses in the Department require, as prerequisites, the five courses of the first-year/sophomore core. A capstone research project is required of all biology majors, except Medical Technology and Cytotechnology majors. The common core of chemistry, physics and mathematics courses in all the biology options and majors facilitates a change of major or option within the Biology Department.

The requirements for the various biology options and majors are not necessarily identical with the requirements for admission to graduate school. 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, two semesters of organic chemistry and one semester 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 award only the graduate M.S. degree and thus require a college B.S. degree for admission.

For the qualified and interested student, the Biology Department sponsors a Biology Honors Program which allows for a distinguished baccalaureate degree. Also, the Biology Department is home for the Gamma Delta Chapter of the prestigious Beta Beta Beta Biological Honor Society. See the Biology web site at <http://bio.winona.msus.edu> for more information.

Pass/No Credit Courses

Biology 117, 118 and 400 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 P/NC basis.

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 that involve them directly in an intimate and meaningful process of biological inquiry. The Honors Program is designed to provide this enhanced opportunity to eligible biology majors.

Student Benefits:

Students participating in the Honors in Biology Program receive a number of benefits which enhances their academic careers and improves 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 greatly improve the student's chances of acceptance into various graduate, medical, dental, physical therapy or other training programs. The letters also improve the student's chances of gaining employment after his or her 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 3 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 possibly receive a modest stipend from the department or the university grants office.

Students who are admitted into the Honors in Biology Program and successfully complete the process will, upon graduation:

- 7) have their official transcripts stamped with the words "Graduated with Honors in Biology";
- 8) have their transcript show the title of their honors thesis; and
- 9) Have their graduation status (Honors in Biology) indicated on the graduation program.

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 and II, Ecology, Cell Biology and Genetics)
- 3) have a 3.25 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 Honors Committee,

Completion:

A student will be recognized as having successfully completed the Honors in Biology Program after satisfying the following requirements:

- 1) They will have completed one semester of Seminar in Biology (students are encouraged to participate in seminar topic outside their area of research) and the Honors in Biology seminar offered in the spring;
- 2) They will have presented their research at a regional research symposium; and
- 3) They will have submitted and received approval of an Honors Thesis in the appropriate format and style.

B.S. MAJOR BIOLOGY - ALLIED HEALTH OPTION

73 S.H. (No Minor Required)

BIOLOGY CORE COURSES (18 S.H.)

- 241 Principles of Biology I (4)
- 242 Principles of Biology II (4)
- 312 General Ecology (3)
- 308 Cell Biology (3)
- 310 Genetics (3)
- 307 Cell/Genetics Laboratory (1)

NOTE: BIOL 241 & 242 should be taken prior to BIOL 312, 307, 308, & 310. BIOL 308 & 310 should be taken prior to or concurrently with BIOL 307.

ALLIED HEALTH OPTION REQUIREMENTS (9 S.H.)

- 201 Human Anatomy (4)
- 323 General Physiology (5)

ALLIED HEALTH OPTION ELECTIVES (17 S.H.)

Courses totaling 17 semester hours to be chosen from any biology elective listed below. Biology 399 does not count toward any biology major.

BIOLOGY CAPSTONE REQUIREMENT (3 S.H.)

- 499 Student Research (3)

OTHER REQUIRED COURSES (26 S.H.)

Chemistry (12 s.h.)

- * 212, *213 Principles of Chemistry I, II (8)
- 340 Organic Chemistry (4)

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

Mathematics (6 s.h.)

- * 150 Mathematics for the Earth and Life Sciences I (3)
- * 155 Mathematics for the Earth and Life Sciences II (3)

Physics (8 s.h.)

- * 201, 202 General Physics I, II (8)

NOTE: University Physics I & II (221, 222) may be substituted for General Physics I and II (201, 202).

* Course may be used to satisfy certain general education requirements.

B.S. MAJOR BIOLOGY - CELL AND MOLECULAR OPTION

71 S.H. (No Minor Required)

BIOLOGY CORE COURSES (18 S.H.)

- 241 Principles of Biology I (4)
- 242 Principles of Biology II (4)
- 312 General Ecology (3)
- 308 Cell Biology (3)
- 310 Genetics (3)
- 307 Cell/Genetics Laboratory (1)

NOTE: BIOL 241 & 242 should be taken prior to BIOL 312, 307, 308 & 310. BIOL 308 & 310 should be taken prior to or concurrently with BIOL 307.

CELL AND MOLECULAR OPTION REQUIREMENTS (14-15 S.H.)

- 400 Chemistry (Biochemistry I) (4)
- 430 Molecular Biology (3)

Two of the six courses listed below (7-8 s.h.):

- 445 Immunology (3)
- 431 Molecular Biology Lab (4)
- 409 General Microbiology (4)
- 309 Developmental Biology (3)
- 393 Animal Cell Culture (4)
- 394 Plant Tissue Culture, Principles and Application (4)

CELL AND MOLECULAR OPTION ELECTIVES (9-10 S.H.)

Courses totaling 9-10 semester hours to be chosen from any biology elective

listed below. Biology 399 does not count toward any biology major.

BIOLOGY CAPSTONE REQUIREMENT (3 S.H.)

- 499 Student Research (3)

OTHER REQUIRED COURSES (26 S.H.)

Chemistry (12 s.h.)

- * 212, *213 Principles of Chemistry I, II (8)
- 340 Organic Chemistry (4)

NOTE: It is recommended that students in this option take Chemistry 350 and 351 instead of 340.

Mathematics (6 s.h.)

- * 150 Mathematics for the Earth and Life Sciences I (3)
- * 155 Mathematics for the Earth and Life Sciences II (3)

Physics (8 s.h.)

- * 201, 202 General Physics I, II (8)

NOTE: University Physics I & II (221, 222) may be substituted for General Physics I, II (201, 202).

* Course may be used to satisfy certain general education requirements.

B.S. MAJOR BIOLOGY - ECOLOGY OPTION

71 S.H. (No Minor Required)

BIOLOGY CORE COURSES (18 S.H.)

- 241 Principles of Biology I (4)
- 242 Principles of Biology II (4)
- 312 General Ecology (3)
- 313 General Ecology Laboratory (1)

308 Cell Biology (3)

310 Genetics (3)

NOTE: BIOL 241 & 242 should be taken prior to BIOL 312, 313, 307, 308 & 310. BIOL 312 should be taken prior to or concurrently with BIOL 313.

ECOLOGY OPTION REQUIREMENTS (10-11 S.H.)

At least one course must be completed from each of the three following groups:

Group A - Organismal/Systematic Ecology

- 303 Survey of Plants and Fungi (4)
- 318 Invertebrate Biology (4)
- 319 Vertebrate Biology (4)
- 320 Ornithology (4)
- 350 Plant Taxonomy (4)
- 360 Entomology (4)

Group B - Field and Quantitative Techniques

- 415 Ecology of Large Rivers (4)
- 335 Plant Ecology (4)
- 420 Limnology (4)
- 304 STAT Biometry (3)

Group C - Principles and Processes

- 315 Environmental Biology (3)
- 380 Evolution (3)
- 423 Ecosystem Ecology (3)
- 424 Biogeography (3)
- 425 Animal Behavior (3)

ECOLOGY OPTION ELECTIVES (13-14 S.H.)

Courses may be chosen from any biology elective listed below. The required ecology option courses and elective ecology option courses must total 24 s.h. Biology 399 does not count toward any biology major.

BIOLOGY CAPSTONE REQUIREMENT (3 S.H.)

- 499 Student Research (3)

OTHER REQUIRED COURSES (26 S.H.)

Chemistry (12 s.h.)

- * 212, *213 Principles of Chemistry I, II (8)
- 340 Organic Chemistry (4)

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

Mathematics (6 s.h.)

- * 150 Mathematics for the Earth and Life Sciences I (3)
- * 155 Mathematics for the Earth and Life Sciences II (3)

NOTE: Students also are encouraged to take Biometry (305)

Physics (8 s.h.)

- * 201, 202 General Physics I, II (8)

NOTE: University Physics I & II (221, 222) may be substituted for General Physics I, II (201, 202).

* Course may be used to satisfy certain General Education Requirements.

B.S. MAJOR BIOLOGY: ENVIRONMENTAL SCIENCE OPTION

124 S.H. (No Minor Required)

(Alliance with environmental science options of other departments is given under "Environmental Science" elsewhere in this catalog.)

GENERAL EDUCATION COURSES (30 s.h.)

Skill Requirements (9 s.h.)

- ENG 111 English Composition (4)
- CMST 191 Speech Communication (3)

MATH (The 3 s.h. MATH requirement is met below with MATH 150 & 155.)

Select courses from the approved list of physical education activities courses (2).

Humanities (6 s.h.)

Select courses from the approved list of humanities courses and from two departments.

Natural Science (0 s.h.)

(The 6 s.h. Natural Science requirement is met below with CHEM

212, 213, PHYS 201; & GEOS 120.)

Social Science (6 s.h.)

Select courses from the approved list of social science courses and from two departments.

Different Culture (6 s.h.)

Select courses from the approved list of different culture courses and from two departments.

Allied Studies (3 s.h.)

Select a course from the approved list of allied studies courses.

BIOLOGY CORE COURSES (18 S.H.)

- 241 Principles of Biology I (4)
- 242 Principles of Biology II (4)
- 312 General Ecology (3)
- 313 General Ecology Laboratory (1)
- 308 Cell Biology (3)
- 310 Genetics (3)

NOTE: BIOL 241 & 242 should be taken prior to BIOL 312, 313, 307, 308 & 310. BIOL 312 should be taken prior to or concurrently with BIOL 313.

ENVIRONMENTAL SCIENCE OPTION REQUIREMENTS (12 S.H.)

- 318 Invertebrate Biology (4) OR 319 Vertebrate Biology (4)
- 335 Plant Ecology (4) OR 350 Plant Taxonomy (4)
- 315 Environmental Biology (3)
- 495 Seminar – Environmental Science (1)

ENVIRONMENTAL SCIENCE OPTION ELECTIVES (7 S.H.)

Courses totaling 7 semester hours to be chosen from:

- 318 Invertebrate Biology (4)
- 319 Vertebrate Biology (4)
- 320 Ornithology (4)
- 335 Plant Ecology (4)
- 350 Plant Taxonomy (4)
- 360 Entomology (4)
- 405 Fishery Biology (3)
- 409 Microbiology (4)
- 415 Ecology of Large Rivers (4)
- 420 Limnology (4)
- 423 Ecosystem Ecology (3)
- 442 Biogeography (3)

BIOLOGY CAPSTONE REQUIREMENT (3 S.H.)

- 499 Student Research (3)

OTHER REQUIRED COURSES (54-55 S.H.)

Chemistry (16 s.h.)

- * 212, *213 Principles of Chemistry I, II (8)
- 320 Environmental Chemistry (4)
- 340 Organic Chemistry (4)

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

Geoscience (12 s.h.)

- * 120 Dynamic Earth (4)
- * 130 Earth and Life Through Time (4)
- 240 Hydrogeology (4)

Mathematics (9 s.h.)

- * 150, *155 Mathematics for the Earth and Life Sciences I, II (6)
- 305 Biometry (3)

Physics (8 s.h.)

- * 201, 202 General Physics I, II (8)

NOTE: University Physics I & II (221, 222) may be substituted for General Physics I, II (201, 202).

Two of the following three courses (6 s.h.)

- BUSA 451 Environmental Law (3)
- ECON 315 Environmental and Natural Resources (3)
- POLS 340 Environmental Policy (3)

One of the following five courses (3-4 s.h.)

- CHEM 425 Analytical Chemistry I (4)
- CHEM 435 Topics in Environmental Chemistry (3)
- GEOS 310 Non-Renewable Natural Resources (3)
- GEOS 225 Environmental Geoscience (3)
- GEOS 315 Surficial Processes and Soils (4)

GEOS 420 Applied Hydrogeology (4)

* Course may be used to satisfy certain General Education Requirements

BIOLOGY ELECTIVES

- 201 Human Anatomy (4)
- 303 Survey of Plants (4)
- 305 STAT Biometry (4)
- 307 Cell Biology Laboratory (1)
- 309 Developmental Biology (3)
- 313 General Ecology 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)
- 327 Developmental Biology Laboratory (1)
- 335 Plant Ecology (4)
- 340 Virology (3)
- 350 Plant Taxonomy (4)
- 360 Entomology (4)
- 370 HPP Kinesiology and Biomechanics (3) (HPP 370 is an elective for Biology, Allied Health Option only.)
- 380 Evolution (3)
- 393 Animal Cell Culture (4)
- 394 Plant Tissue Culture, Principles and Application (4)
- 400 Individual Problems in Biology (1-3)
- 400 CHEM Biochemistry I (4)
- 401 CHEM Biochemistry II (4)
- 405 Fishery Biology (3)
- 409 General Microbiology (4)
- 410 Membrane Biology (4)
- 411 Protein Structure and Function (1)
- 415 Ecology of Large Rivers (3)
- 420 Limnology (4)
- 423 Ecosystem Ecology (3)
- 424 Biogeography (3)
- 425 Animal Behavior (3)
- 427 Advanced Topics in Biology (1-4)
- 430 Molecular Biology (3)
- 431 Molecular Biology Laboratory (4)
- 433 PSY Neuroscience (4)
- 441 Comparative Vertebrate Physiology (3)
- 445 Immunology (3)
- 446 Immunology Laboratory (1)
- 460 General Parasitology (3)
- 462 Parasitology (4)
- 470 Histology (4)
- 495 Seminar in Biology (1)
- 496 Undergraduate Thesis (1)
- 499 Student Research (3)

B.S. MAJOR - LIFE SCIENCE

(Teaching)

128 S.H. (No Minor Required)

NOTE: WSU was in the process of changing the requirements for teaching licensure at the time this catalog went to print. The Biology Department, in cooperation with other science departments and the College of Education, is developing a new BOT-approvable program which will be implemented as soon as possible. Students should be aware that the program described below will be changing significantly in the near future, and they will need to work closely with their academic advisor to ensure that they can graduate with a BOT-approved degree.

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 see the Education section in 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.

GENERAL EDUCATION COURSES (18 s.h.)

Skill Requirements (9 s.h.)

- ENG 111 English Composition (4)
- CMST 191 Speech Communication (3)
- MATH (The 3 s.h. MATH requirement is met below with MATH 150 & 155.)

PHY ED

Select courses from the approved list of physical education activities courses (2).

Humanities (3 s.h.)

Select courses from the approved list of humanities courses and from two departments.

Natural Science (0 s.h.)

(The 6 s.h. Natural Science requirement is met below with CHEM 212, 213; PHYS 201; & GEOS 105, 120.)

Social Science (3 s.h.)

Select courses from the approved list of social science courses and from two departments.

Different Culture (3 s.h.)

Select courses from the approved list of different culture courses and from two departments.

Allied Studies (0 s.h.)

(The 3 s.h. Allied Studies requirement is met below with HHP 204.)

BIOLOGY CORE COURSES (18 S.H.)

- 241 Principles of Biology I (4)
- 242 Principles of Biology II (4)
- 312 General Ecology (3)
- 308 Cell Biology (3)
- 310 Genetics (3)
- 307 Cell/Genetics Laboratory (1) OR
- 313 Ecology Laboratory (1)

NOTE: BIOL 241 & 242 should be taken prior to BIOL 312, 313, 307, 308 & 310. BIOL 308 & 310 should be taken prior to or concurrently with BIOL 307. BIOL 312 should be taken prior to or concurrently with BIOL 313.

LIFE SCIENCE REQUIREMENT (6 S.H.)

- 315 Environmental Biology (3)
- 499 Student Research (3) (This course also satisfies biology capstone requirement.)

LIFE SCIENCE ELECTIVES (9 S.H.)

At least 7 credits of approved elective courses to be chosen from any biology elective listed above. Biology 399 does not count toward any biology major. It is strongly recommended that the elective requirements be fulfilled from the courses listed below:

Animal Biology

- 201 Human Anatomy (4)
- 318 Invertebrate Biology (4)
- 319 Vertebrate Biology (4)
- 320 Ornithology (4)
- 360 Entomology (4)
- 441 Comparative Vertebrate Physiology (3)

Plant Biology

- 303 Survey of Plants (4)
- 314 Plant Physiology (4)
- 335 Plant Ecology (4)
- 350 Plant Taxonomy (4)

Microbiology

- 409 General Microbiology (4)

OTHER REQUIRED COURSES (77 S.H.)

Chemistry (12 s.h.)

- * 212, *213 Principles of Chemistry I, II (8)
- 340 Organic Chemistry (4)

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

Education (34 s.h.)

- EDUC 305 Human Development and Learning (4)
- EDUC 308 Human Relations and Student Diversity (3)
- EDUC 312 Instructional Planning Assessment (3)
- EDUC 429 Secondary Reading and Teaching Strategies (4)

EDUC 449 Middle School Philosophy, Organization and Interdisciplinary Planning (3)

EDUC 459 The Professional Educator (3)

EDUC 465 Student Teaching (12)

HHP 204 Personal and Community Health (3)

SPED 200 Human Exceptionality (3)

Geoscience (4 s.h.)

- * 120 Dynamic Earth (4)
- * 130 Earth and Life Through Time (4)

Mathematics (6 s.h.)

- * 150 Mathematics for the Earth and Life Sciences I (3)
- * 155 Mathematics for the Earth and Life Sciences II (3)

Physics (12 s.h.)

- * 201, 202 General Physics I, II (8)
- 311 Science Teaching Methods (4)

NOTE: University Physics I & II (221, 222) may be substituted for General Physics I, II (201, 202).

* Course may be used to satisfy certain general education requirements.

Students desiring a state license to teach also must take the Professional Education Sequence in the Education Department and should carefully choose electives with the aid of the life science advisor to ensure broad knowledge and skill in biology.

B.A. MINOR BIOLOGY

38 S.H.

PREREQUISITES (3 S.H.)

- * 150 Mathematics for the Earth and Life Sciences I (3)

REQUIRED COURSES (20 S.H.)

Biology (8)

- * 241 Principles of Biology I (4)
- * 242 Principles of Biology II (4)

Chemistry (12)

- * 212 Principles of Chemistry I (4)
- * 213 Principles of Chemistry II (4)
- 340 Organic Chemistry (4)

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

ELECTIVES (15 S.H.)

Any course (required or elective) listed with the B.S. Biology Major in any of the four options.

* Course may be used to satisfy certain general education requirements.

Biology Course Descriptions

See web site <http://bio.winona.msus.edu> for the latest course information and a schedule of alternate year courses.

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicums. The P/NC option is available to non-majors unless otherwise noted.

104 - Conservation of the Environment—3 S.H.

Problems in the wise use of natural resources with emphasis on human impacts and sustainable living. Lecture only. Offered each semester.

117 - Human Biology—3 S.H.

An introductory study of the anatomy, physiology, development and heredity of the human for students who are not majoring in biology. Lecture only. Grade only. Offered each semester.

118 - General Biology—4 S.H.

A course that promotes critical thinking about the process of studying living organisms. Students are exposed to a sampling of major living groups while utilizing the scientific method. Lecture and laboratory. Grade only. Offered each semester.

171 - Medical Terminology—1 S.H.

Scientific terminology as it applies to human and veterinary medicine, dentistry and related professions. Topics include the cardiovascular, skeletal, muscular, integumentary, urinary and reproductive systems. Independent study using tapes and study guide. Grade only. Offered each semester.

172 - Medical Terminology—1 S.H.

Scientific terminology as it applies to human and veterinary medicine, dentistry and related professions. Topics include the nervous, respiratory and digestive systems. Independent study using tapes and study guide. Grade only. Offered each semester.

173 - Medical Terminology—1 S.H.

Scientific terminology as it applies to human and veterinary medicine, dentistry and related professions. Topics include the endocrine system, blood and lymphatics, measurement, positions, colors, and miscellaneous words and medical specialties. Independent study using tapes and study guide. Grade only. Offered each semester.

201 - Human Anatomy—4 S.H.

A study of the human body from both systemic and regional perspectives, integrating microscopic and macroscopic information. Includes cat dissection as an example of mammalian anatomy and demonstrations of prosected cadavers. Prerequisites: CHEM 212, CHEM 213 and BIOL 241. Lecture and lab. Offered yearly.

203 - Natural History—4 S.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 yearly.

204 - Elements of Anatomy and Physiology—4 S.H.

Introduction to the structure and function of the human body designed especially for physical education, recreation and health majors. Offered according to demand.

206 - Normal Nutrition—3 S.H.

Basic principles of nutrition and the nutritional needs of individuals at different age levels. Prerequisites: CHEM 208. Offered each semester.

209 - Microbiology—3 S.H.

Introduction to microbiology including study of prokaryotic, eukaryotic and viral microorganisms important to human health, microbial growth, microbial control, microbial nutrition and microbial cultivation. Lecture and laboratory. Prerequisites: CHEM 208 and CHEM 209 or CHEM 212 and CHEM 213 or equivalent. Offered yearly.

211 - Anatomy and Physiology I—4 S.H.

First course of a year-long sequence for students in Nursing and Health and Human Performance. Includes terminology and orientation of the body, basics of chemistry, cytology, histology, and the integumentary, skeletal, muscular and nervous systems. Lecture and laboratory. Offered yearly.

212 - Anatomy and Physiology II—4 S.H.

Quarter Course: 212 and 213.

The second course of a year-long sequence for students in Nursing and Health and Human Performance. Includes structure and function of the endocrine, circulatory, immune, respiratory, digestive, urinary and reproductive systems; nutrition and metabolism; fluid and ionic balance. Lecture and laboratory. Prerequisite: BIOL 211. Offered yearly.

241 - Principles of Biology I—4 S.H.

One of two introductory courses, both of which are required of all biology majors. Introduces the basic life processes at the molecular, cellular, tissue and organismal levels. Prerequisites: none. Lecture and laboratory. Offered each semester.

242 - Principles of Biology II—4 S.H.

Quarter Course: 242 and 243.

One of two introductory courses, both of which are required of all biology majors. Introduces ways in which organisms carry out basic life processes (e.g., gas exchange, nutrition) and interactions between organisms and their environment. Lecture and laboratory. Prerequisites: none. Offered each semester.

269 - Human Reproduction—3 S.H.

The biology of human reproduction. The aim of this course is to present a basic but comprehensive survey of many aspects of human reproduction. Topics include anatomy, physiology, biochemistry, normal and abnormal functions of all aspects of reproduction. Lecture and discussion. No prerequisite. Offered according to demand.

303 - Survey of Plants—4 S.H.

A systematic, morphological and evolutionary overview of fungi, photosynthetic protists, and plants other than the Angiosperms. Lecture and laboratory. Prerequisites: BIOL 308, BIOL 310 and BIOL 312. Offered alternate years.

307 - Cell Biology Laboratory—1 S.H.

An experimental study of the cell as a biological unit. Use of histochemistry, spectrophotometry, electrophoresis, centrifugation, microscopy and statistics in analysis of ultrastructure, macromolecular organization and function of cell components in plants and animals. Prerequisites: BIOL 241, BIOL 242, BIOL 312, BIOL 308 (or concurrent registration in BIOL 308), 310 (or concurrent registration in BIOL 310), CHEM 340. Offered yearly.

308 - Cell Biology—3 S.H.

A study of the cell as a biological unit. Analysis of ultrastructure, macromolecular organization and function of cell components in plants and animals is emphasized. Lecture only. Prerequisites: BIOL 241, BIOL 242, BIOL 312 and CHEM 340. Offered yearly.

309 - Developmental Biology—3 S.H.

A study of the mechanisms of the sequent changes that occur within organelles, cells, tissues, organs and organ systems of plants and animals during their life spans. Lecture only. Prerequisites: BIOL 308, BIOL 310 and BIOL 312. Offered yearly.

310 - Genetics—3 S.H.

A survey of the principles of Mendelian, molecular, cytological, population and human genetics. Lecture only. Prerequisites: BIOL 241, BIOL 242, and BIOL 312 Offered yearly.

312 - General Ecology—3 S.H.

Relationships between organisms and their environment with an emphasis on fundamental principles. Prerequisites: BIOL 241 and BIOL 242. Lecture only. Offered yearly.

313 - General Ecology Laboratory—1 S.H.

Laboratory and field studies of fundamental ecological principles. Prerequisites: BIOL 241 and BIOL 242. Co-requisite: BIOL 312. Offered yearly.

314 - Plant Physiology—4 S.H.

Physiological principles underlying the processes that occur in living plants: growth and development, water relations and mineral nutrition, transport, photosynthesis and metabolism. Lecture and laboratory. Prerequisites: BIOL 308, BIOL 310 and BIOL 312. Offered alternate years.

315 - Environmental Biology—3 S.H.

A study of human impacts on the natural environment. Modern conservation measures, pollution prevention and habitat management procedures are treated in depth. Lecture and field trips. Prerequisite: BIOL 308, BIOL 310 and BIOL 312. Offered alternate years.

318 - Invertebrate Biology—4 S.H.

Survey of invertebrate animals. Emphasis on structure, function, evolution and ecology of the major invertebrate groups. Lecture and laboratory. Prerequisites: BIOL 308, BIOL 310 and BIOL 312. Offered alternate years.

319 - Vertebrate Biology—4 S.H.

A study of the structure, function, evolution and taxonomy of all the groups of vertebrates. Lecture and laboratory. Prerequisites: BIOL 308, BIOL 310 and BIOL 312. Offered alternate years.

320 - Ornithology—4 S.H.

Structure, classification, behavior, distribution and identification of birds. Lecture, laboratory and field work. Prerequisites: BIOL 308, BIOL 310, BIOL 312 and CHEM 212 or instructor's permission. Offered alternate years.

323 - General Physiology—5 S.H.

Quarter Course: 323 and 324.

Lectures, demonstrations and laboratory exercises are designed to provide the basis for understanding physiological mechanisms and the functional organization of body systems. Topics may include muscle, nervous, cardiovascular, respiratory, urinary, digestive, endocrine, immune and reproductive systems. Prerequisites: BIOL 241, BIOL 242, BIOL 201 and CHEM 208, CHEM 209 or CHEM 212 and CHEM 213. Offered yearly.

327 - Developmental Biology Laboratory—1 S.H.

An experimental study of the mechanisms of changes that occur during embryonic development. Laboratory. Co-requisites: concurrent or previous enrollment in BIOL 309. Offered even years.

333 - Medical Laboratory Techniques—1 S.H.

Selected students participate in the every day operation of a hospital medical laboratory. Students must see their advisor four weeks prior to registration. May be repeated for credit. P/NC only. Offered spring semester.

335 - Plant Ecology—4 S.H.

A study of the interactions of plants with each other and their envi-

ronment. Emphasis is on applied and theoretical physiological, population and community ecology. Lecture, field work and laboratory. Prerequisites: BIOL 308, BIOL 310, BIOL 312 and BIOL 313. Offered alternate years.

340 - Virology—3 S.H.

Basic properties of viruses. Includes viral structure, assays, replication, diseases, genetic properties, mechanisms of interaction with cells, viral oncogenesis, and interference with viral multiplication. Lecture only. Prerequisites: BIOL 308, BIOL 310 and BIOL 312. Offered alternate years.

350 - Plant Taxonomy—4 S.H.

An introduction to the principles and practices of plant classification, systematics and identification, as applied to vascular plants with special emphasis on the local flora. Prerequisites: BIOL 308, BIOL 310 and BIOL 312. Lecture, laboratory and field trips. Offered alternate years.

360 - Entomology—4 S.H.

The largest group of organisms on earth is explored through personal collections, projects, lecture and laboratory exercises. Students sample morphology, life history strategies and the diversity of the group through lecture discussions and laboratory exercises. Prerequisites: BIOL 308, BIOL 310 and BIOL 312. Offered alternate years.

380 - Evolution—3 S.H.

Overview of principles and processes of biological evolution with emphasis on selection, variation and macroevolution. Prerequisites: BIOL 308, BIOL 310 and BIOL 312. Offered alternate years.

393 - Animal Cell Culture—4 S.H.

Introduction to basic and specialized techniques of animal cell culture. Techniques include aseptic technique, in vitro cell cultivation, cell enumeration, viability determination, hybridomas technique for monoclonal antibody production, cryopreservation, and cell cloning. Lecture and laboratory. Prerequisites: BIOL 308, BIOL 310 and BIOL 312. Offered yearly.

394 - Plant Tissue Culture, Principles and Application—4 S.H.

Basic plant tissue culture techniques. Use of these methods in commercial propagation of plants, production of disease-free plants and genetic improvement of ornamental and crop plants. Prerequisites: BIOL 308 and BIOL 314. Offered alternate years.

399 - Internship—1-12 S.H.

Supervised experiences at a government, industrial or research institution. Credits do not replace other required or elective courses in the Biology Major, but count as general elective credit. May be repeated up to 12 s.h. Only 3 s.h. may be taken for letter grade. Prerequisite: completion of required biology courses. Offered each semester.

400 - Individual Problems in Biology I—1-3 S.H.

An opportunity for the qualified advanced undergraduate student to work independently. Prerequisite: instructor's permission. May be repeated to a total of 3 s.h. Grade only. Offered each semester.

405 - Fishery Biology—3 S.H.

Examination of the concepts, methodologies and problems of modern-day fishery management. Lecture and field work. Prerequisites: BIOL 308, BIOL 310 and BIOL 312. Offered alternate years.

409 - General Microbiology—4 S.H.

The anatomy, physiology, biochemistry, genetics, taxonomy and ecology of microorganisms, especially bacteria; includes applications to agriculture, medicine and industry. Lecture and laboratory. Prerequisites: BIOL 308, BIOL 310 and CHEM 340. Offered yearly.

410 - Membrane Biology—4 S.H.

Study of the structure and function of biological membranes. Includes detailed discussions of membrane preparation, membrane components, membrane carbohydrates, membrane transport and membrane bioenergetics. Lecture and laboratory. Prerequisites: BIOL 308, BIOL 310, BIOL 312 and CHEM 340. Offered according to demand.

411 - Protein Structure and Function—1 S.H.

An advanced study of protein primary, secondary, tertiary and quaternary structure using the data found in the National Institutes of Health Protein Data Bank, along with software for visualization and presentation of crystallographic data. Protein functions will be correlated with the structural features through primary literature, monographs and textbooks. Lecture and demonstration. Prerequisites: BIOL 308, and CHEM 340 or CHEM 350. Offered according to demand.

415 - Ecology of Large Rivers—4 S.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 and laboratory. Prerequisites: BIOL 308, BIOL 310 and BIOL 312 or instructor's permission. Offered alternate years.

420 - Limnology—4 S.H.

Analysis of the geological, physical, chemical and biological aspects of inland waters. Lecture, laboratory and field work. Prerequisites: BIOL 308, BIOL 310, BIOL 312 and CHEM 212 or instructor's permission. Offered alternate years.

423 - Ecosystem Ecology—3 S.H.

The structure and function of ecosystems including biochemical cycling, food webs and introduction to modeling. Lecture only. Prerequisites: BIOL 308, BIOL 310, BIOL 312, MATH 150 and MATH 155. Offered alternate years.

424 - Biogeography—3 S.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. Prerequisites: BIOL 308, BIOL 310 and BIOL 312. Offered alternate years.

425 - Animal Behavior—3 S.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: BIOL 308, BIOL 310 and BIOL 312. Offered alternate years.

427 - Advanced Topics in Biology—1-4 S.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 laboratory. Topic announced in advance. May be repeated for credit as topics change. Prerequisites: BIOL 308, BIOL 310 and BIOL 312. Offered according to demand and staffing availability.

430 - Molecular Biology—3 S.H.

A study of the various molecular aspects of DNA, RNA, and protein structure, function, and expression. Topics include DNA replication, DNA transcription into RNA, RNA translation to protein, DNA repair mechanisms, plasmids and transposons, recombinant DNA and genetic engineering, and regulation of gene activity in prokaryotes and eukaryotes. Lecture only. Prerequisites: BIOL 308, BIOL 310, BIOL 312 and CHEM 340. Offered yearly.

431 - Molecular Biology Laboratory—4 S.H.

An intensive laboratory course introducing modern methods and instrumentation in molecular biology. Selected exercises in recombinant DNA technology, including DNA isolation and quantification, restriction enzyme analysis, gene cloning, Southern hybridization, DNA amplification via the polymerase chain reaction, DNA sequencing and introduction to sequence analysis software. Prerequisite: BIOL 430 or concurrent enrollment. Instructor's permission. Offered yearly.

441 - Comparative Vertebrate Physiology—3 S.H.

Lectures and demonstrations provide an understanding of physiological mechanisms in an evolutionary context. Focus will be on organismal physiology. Topics include: temperature, water and solutes, respiration/circulation, sensory/nervous systems, endocrinology/reproduction. Prerequisites: BIOL 241, BIOL 242, BIOL 312, BIOL 308 and CHEM 340 or CHEM 350. Offered alternate years.

443 - Urinalysis—1 S.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 and gastric analysis. Prerequisites: BIOL 308, BIOL 310 and CHEM 340. Grade only. Offered yearly.

444 - Hematology—2 S.H.

Study of blood and blood-forming tissues for Medical Technology majors. Includes development, cytology, immunocytology, histology and functions of all formed elements and plasma composition. Prerequisites: BIOL 241, BIOL 242, BIOL 308, BIOL 310 and CHEM 340 or CHEM 350. Offered yearly.

445 - Immunology—3 S.H.

An introduction to the theory and practice of modern immunology. Emphasis on the immune response in humans. BIOL 308, BIOL 310 and CHEM 340. Offered yearly.

446 - Immunology Laboratory—1 S.H.

This course will introduce students to the theory and application of modern immunological techniques. Topics included are antibody detection methods using precipitation, agglutination, ELISA, western blot analysis, dot blots, and immunoelectrophoresis. Other methods include SDS-PAGE, Affinity Chromatography, antigen preparation, protein analysis, T Cell isolation and others. Co-requisite: concurrent or previous enrollment in BIOL 445. Offered yearly.

450, 451 - Medical Technology I and II—12 S.H. each

Quarter Courses: 450, 451 and 452.

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. Grade only. Offered yearly.

452, 453 - Medical Technology III and IV—4 S.H. each

Quarter Courses: 453 and 454.

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. Grade only. Offered yearly.

460 - General Parasitology—3 S.H.

An introduction to the study of parasites of humans and domestic animals, and the etiology of associated pathologic states. This course is especially intended for students in the Medical Technology program. Lecture and laboratory Prerequisites: BIOL 308, BIOL 310 and CHEM 340. Offered yearly.

462- Parasitology—4 S.H.

This course will examine medically and veterinary important parasites of the world. Each parasite will be studied thoroughly to include details of taxonomic classification, host spectrum, geographic distribution, morphology, life cycle requirements, pathogenesis, control measures and public health significance. Lecture and laboratory. Prerequisites: BIOL 308, BIOL 310, and CHEM 340 or permission of instructor. Offered yearly.

470 - Histology—4 S.H.

A microscopic study of animal cells, tissues, and organs and correlating structure and function. Emphasis is placed on the mammal. Laboratory includes histotechniques for preparing sections and histochemical staining. Lecture and laboratory. Prerequisites: BIOL 308, BIOL 310, CHEM 212 and CHEM 213. Offered yearly.

481, 482 - Cytotechnology I and II—12 S.H. each

Quarter Courses: 481, 482 and 483.

Cytotechnology clinical education. Courses and content to be determined by the Program Director, Educational Coordinator and staff of the affiliated clinical education facility. Prerequisites: Cytotechnology Major with Senior standing. Grade only. Offered yearly.

483, 484 - Cytotechnology III and IV—4 S.H. each

Quarter Courses: 484 and 485.

Cytotechnology clinical education. Courses and content to be determined by the Program Director, Educational Coordinator and staff of the affiliated clinical education facility. Prerequisites: Cytotechnology Major with Senior standing. Grade only. Offered yearly.

495 - Seminar in Biology—1 S.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 instructor's permission required. Offered each semester.

496 - Undergraduate Thesis—1 S.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 theses. 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. Prerequisite: instructor's permission. Offered each semester.

499 - Student Research—3 S.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: BIOL 308, BIOL 310, BIOL 312 and instructor's permission. Offered each semester.

BUSINESS ADMINISTRATION

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

Business Administration: Bjorke (Chairperson), Astani, Barbor, Dewan, Foegen, Gander, Gernander, Safarian, Sinkiewicz, M. Wolfmeyer, P. Wolfmeyer

Faculty

Marzie Astani, Professor; B.A., Tehran University; M.S., Ph.D., Iowa State University of Science and Technology; M.B.A., Central Michigan University; 1987 -

Sara Barbor, Professor; B.A., Earlham College; M.A., Ball State University; M.B.A., Ph.D., University of Kansas; 1988 -

Joell W. Bjorke, Professor; B.S., St. Cloud State University; J.D., William Mitchell College of Law; Ph.D., University of Western Ontario; 1981 -

Shashi Dewan, Professor; B.S., Malviya Regional Engineering College; M.B.A., Ph.D., Indian Institute of Technology; 1988 -

Joseph Foegen, Professor; B.B.A., M.B.A., Ph.D., University of Wisconsin-Madison; 1958 -

Mary Gander, Professor; B.A., M.S., Ph.D., University of Wisconsin-Madison; 1986 -

Judy M. Gernander, Professor; B.A., Mankato State University; J.D., University of Minnesota-Twin Cities; 1970 -

Vartan Safarian, Professor; B.S., Pahlavi University; M.S., M.B.A., Indiana University; 1983 -

Anthony Sinkiewicz, Professor; B.S., University of New York-Albany; M.A., Webster University, St. Louis; D.B.A., U.S. International University; 1987 -

Marvin Wolfmeyer, Professor; B.S., University of Missouri-Columbia; M.S., Ph.D., University of Wisconsin-Madison; 1969 -

Pamela Wolfmeyer, Professor; B.A., Grinnell College; M.A., University of Wisconsin-Madison; 1969 -

The basic purpose of the Business Administration programs is to prepare students for careers in administration of all types of organizations in the private, non-profit and public sectors. The Management curriculum is designed to provide students with the tools to pursue professional careers in management of operating units or groups and more specialized areas such as human resources management. The Management Information Systems major prepares students for the integration of information systems tools and technologies into various business areas.

GRADUATION REQUIREMENTS:

1. Completion of all course work required for the major.
2. No more than two courses may be counted toward the major with a passing grade lower than "C." A course can not be repeated more than twice.
3. Completion of a minimum 15 credit hours of 300/400-level courses from the Department of Business Administration at WSU.
4. None of the courses required for a major, minor, option or any of the concentrations may be taken on a P/NC basis.
5. Completion of a minimum of 50% of the business courses in the major from WSU.
6. Sixty-four non-business credits are required for all majors in the Department. The mathematics, statistics (six semester credits maximum) and economics (nine semester credits maximum) required for the department majors can be counted toward the 64 non-business credits.
7. Meet all WSU graduation requirements.

B.S. MAJOR - BUSINESS ADMINISTRATION

69 S.H. (No Minor Required)

GENERAL EDUCATION REQUIREMENT

Mathematics (3 s.h.)

- * 110 Finite Mathematics (3) OR
- * 120 Precalculus (4) OR
- * 140 Applied Calculus (3)

REQUIRED COURSES (36 S.H.)

Accounting (6 s.h.)

- * 211 Financial Accounting Principles(3)
- * 212 Managerial Accounting Principles (3)

Business Administration (18 s.h.)

- DIS 220 Business Statistics (3)
- DIS 362 Management Information Systems (3)
- BUSA 301 Business Law I (3)
- MGMT 315 Principles of Management (3)
- MGMT 325 Organizational Dynamics (3)
- POM 334 Production & Operations Management (3)

Economics and Finance (9 s.h.)

- * ECON 201 Principles of Microeconomics (3)
- * ECON 202 Principles of Macroeconomics (3)
- FIN 360 Corporate Finance (3)

Marketing (3 s.h.)

- 300 Principles of Marketing (3)

BUSINESS ADMINISTRATION REQUIREMENTS (15 S.H.)

- BUSA 311 Business Law II (3)
- DIS 202 Microcomputers in Business (3)
- DIS 320 Intermediate Business Statistics (3)
- MGMT 317 Management of Human Resources (3)
- MGMT 495 Strategic Management (3)

ELECTIVES (15 S.H.)

Option A - (Must be 300+ level courses)

DIS/POM Course (3)

Management Course (3)

International Business/Management (3) OR

an international course from Accounting, Business Administration, Economics and Finance or Marketing (3)

Any course from the Department of Business Administration (3)

Any course from Departments of Business Administration, Accounting, Economics and Finance, or Marketing (3)

Option B

A minor or a second major from the Departments of Accounting, Business Administration, Economics and Finance, or Marketing — which includes a minimum of 15 s.h. of non-duplicate courses.

B.S. MAJOR - HUMAN RESOURCES MANAGEMENT

66 S.H. (No Minor Required)

GENERAL EDUCATION REQUIREMENT

Mathematics (3 s.h.)

- * 110 Finite Mathematics (3) OR
- * 120 Precalculus (4) OR
- * 140 Applied Calculus (3)

REQUIRED COURSES (48 S.H.)

Accounting (6 s.h.)

- * 211 Financial Accounting Principles (3)
- * 212 Managerial Accounting Principles (3)

Business Administration (18 s.h.)

- BUSA 291 Legal Environment of Business (3)
- DIS 202 Microcomputers in Business (3)
- DIS 220 Business Statistics (3)
- DIS 320 Intermediate Business Statistics (3)
- MGMT 315 Principles of Management (3)
- MGMT 495 Strategic Management (3)

Economics and Finance (9 s.h.)

- * ECON 201 Principles of Microeconomics (3)
- * ECON 202 Principles of Macroeconomics (3)
- FIN 360 Corporate Finance (3)

Marketing (3 s.h.)

- 300 Principles of Marketing (3)

Management (12 s.h.)

- 317 Management of Human Resources (3)
- 325 Organizational Dynamics (3)
- 417 Compensation (3)
- 467 Staffing and Evaluation (3)

ELECTIVES (15 S.H.)

Business Administration

- MGMT 365 Independent Readings in Management (1-3)
- MGMT 377 Independent Readings in Human Resources (1-3)
- MGMT 387 Independent Readings in Labor Relations (1-3)
- BUSA 399 Internship Problems (3)
- MGMT 415 Theories of Management (3)
- MGMT 427 Management Development (3)
- MGMT 437 Labor Relations (3)
- MGMT 447 International Labor Relations (3)
- MGMT 457 Problems in Management of Human Resources (3)
- BUSA 486 Independent Studies in Business (1-3)

Administrative Information Systems

- 440 Training and Employee Development (3)

Economics

- 420 Labor Economics (3)

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 15 elective credits must be in 300+ level courses.

- * Course may be used to satisfy certain General Education requirement

B.S. MAJOR - MANAGEMENT INFORMATION SYSTEMS

78 S.H. (No Minor Required)

GENERAL EDUCATION REQUIREMENT**Mathematics (3 s.h.)**

- * 110 Finite Mathematics (3) OR
- * 120 Precalculus (4) OR
- * 140 Applied Calculus (3)

Recommended Natural Science (3 s.h.)

- * CS 150 An Overview of Computer Science (3)

BUSINESS CORE (39 S.H.)**Accounting (6 s.h.)**

- * 211 Financial Accounting Principles (3)
- * 212 Managerial Accounting Principles (3)

Business Administration (21 s.h.)

- BUSA 291 Legal Environment of Business (3)
- DIS 220 Business Statistics (3)
- DIS 320 Intermediate Business Statistics (3)
- DIS 362 Management Information Systems (3)
- MGMT 325 Organizational Dynamics (3)
- MGMT 495 Strategic Management (3)
- POM 334 Production and Operations Management (3)

Economics and Finance (9 s.h.)

- * ECON 201 Principles of Microeconomics (3)
- * ECON 202 Principles of Macroeconomics (3)
- FIN 360 Corporate Finance (3)

Marketing (3 s.h.)

- 300 Principles of Marketing (3)

REQUIRED DIS COURSES (12 s.h.)

- 312 Business Computer Programming (3)
- 342 Advanced Business Computer Applications (3)
- 452 Management of Telecommunication Systems (3)
- 492 Topics in MIS (3)

REQUIRED COMPUTER SCIENCE COURSES (14 s.h.)

- 234 Algorithms and Problem Solving I (4)
- 250 Algorithms and Problem Solving II (4)
- 385 Applied Database Management Systems (3)
- 410 Software Engineering (3)

REQUIRED MATHEMATICS COURSES (4 s.h.)

- 210 Discrete Mathematics and Foundations (4)

ELECTIVES (6 S.H.)**Decision and Information Systems**

- DIS 332 Business Programming Tools (3)
- DIS 340 Management Science (3)
- DIS 460 Project Planning and Control (3)
- DIS 462 Decisions Support Systems (3)
- DIS 482 Management of Information Technology (3)
- BUSA 399 Internship Problems (3)

Computer Science

- 412 Networking and Telecommunications (3)
- 413 Advanced Networking and Telecommunications (3)
- 371 Object-Oriented Design & Development (3)
- 445 Artificial Intelligence (3)
- 467 Topics in Information Systems Applications (3)
- 470 Systems Design and CASE Tools (3)
- 476 Distributed Systems: Concepts and Applications (3)
- 485 Database Systems Design (3)

- * Course may be used to satisfy certain General Education requirement

B.S. MINOR - BUSINESS ADMINISTRATION

33 S.H.

REQUIRED COURSES (33 S.H.)**Accounting (6 s.h.)**

- * 211 Financial Accounting Principles (3)
- * 212 Managerial Accounting Principles (3)

Business Administration (15 s.h.)

- BUSA 291 Legal Environment of Business (3)
- DIS 202 Microcomputers in Business (3)

DIS 220 Business Statistics (3)

MGMT 315 Principles of Management (3) OR

MGMT 325 Organizational Dynamics

POM 334 Production & Operations Management (3)

Economics and Finance (9 s.h.)

* ECON 201 Principles of Microeconomics (3)

* ECON 202 Principles of Macroeconomics (3)

FIN 360 Corporate Finance (3)

Marketing (3 s.h.)

300 Principles of Marketing (3)

- * Course may be used to satisfy certain General Education requirement

B.S. MINOR - BUSINESS LAW

24 S.H.

REQUIRED COURSES (12 S.H.)**Accounting (6 s.h.)**

- * 211 Financial Accounting Principles (3)
- * 212 Managerial Accounting Principles (3)

Business Administration (6 s.h.)

- 301 Business Law I (3)
- 311 Business Law II (3)

ELECTIVES (12 S.H.)**Accounting**

421 Introduction to Taxation (3)

Business Administration

101 Introduction to Law and the Legal Process (3)

376 Topics in Business (1-3)

NOTE: Topics requires prior written approval from Department chairperson.

411 International Business Law (3)

421 Consumer Law (3)

431 Real Estate Law (3)

441 Health Law (3)

491 Seminar in Business Law (3)

The following courses require written approval from Department chairperson:

Political Science

320 Constitutional Law (3)

420 Administrative Law (3)

Philosophy

325 Philosophy of Law (3)

Additional courses may be used with prior written approval from Department chairperson.

- * Course may be used to satisfy certain General Education requirement

B.S. MINOR - INTERNATIONAL BUSINESS

30-33 S.H.

This International Business Minor provides in-depth coverage of issues and concepts related to the operations and management of international business. The program's courses focus on the international business environment, and management and control of international/multinational operations and resources. The objective is to provide insight into the environmental issues surrounding the global operations of business.

REQUIRED COURSES (12 S.H.)

ECON 404 International Economics (3) OR

ECON 415 International Economic Development (3)

FIN 440 International Finance (3)

MGMT 455 International Business (3)

MGMT 475 Seminar in International Management (3)

MKTG 331 International Marketing (3)

FOREIGN LANGUAGE (9-12 s.h.)

- * A minimum of three semesters in a single foreign language.

ELECTIVES (9 S.H.)

- ACCT 424 International Taxation (3)
- BUSA 411 International Business Law (3)
- ECON 404 International Economics (3)
- ECON 415 International Economic Development (3)
- MGMT 447 International Labor Relations (3)

NOTE: The foreign language requirement may be applied toward the general education requirements.

B.S. MINOR-MANAGEMENT

30 S.H.

REQUIRED COURSES (12 S.H.)

At least one course from each of the following four sections

ORGANIZATIONAL COMPONENT

- MGMT 315 Principles of Management
- MGMT 317 Management of Human Resources
- MGMT 325 Organizational Dynamics
- MGMT 415 Theories of Management
- MGMT 427 Management Development

OPERATIONAL COMPONENT

- POM 334 Production/Operations Management
- POM 344 Purchasing
- POM 424 Management of Technology
- POM 434 Quality and Productivity Management
- MGMT 435 Managing for Quality
- DIS 460 Project Planning and Control

INTERNATIONAL COMPONENT

- MGMT 447 International Labor Relations
- MGMT 455 International Business
- MGMT 475 Seminar in International Business

INTEGRATED COMPONENT

- MGMT 425 Small Business Management
- MGMT 495 Strategic Management

ELECTIVES (18 S.H.)

Any additional 18 s.h. from the above list.

B.S. MINOR - MANAGEMENT INFORMATION SYSTEMS

21 S.H.

REQUIRED COURSES (12 S.H.)

- DIS 202 Microcomputers in Business (3)
- DIS 312 Business Computer Programming (3)
- DIS 342 Advanced Business Computer Applications (3)
- DIS 362 Management Information Systems (3)

ELECTIVES (9 S.H.)

- DIS 332 Business Programming Tools (3)
- DIS 340 Management Science (3)
- DIS 452 Management of Telecommunication Systems (3)
- DIS 460 Project Planning and Control (3)
- DIS 462 Decision Support Systems (3)
- DIS 482 Management of Information Technology (3)
- DIS 492 Topics in MIS (3)

Business Administration

Course Descriptions

- BUSA: Business Administration
- DIS: Decision and Information Systems
- HCM: Health Care Management
- MGMT: Management
- POM: Production and Operations Management

All courses offered on a Grade Only basis except BUSA 101,106 and 398.

BUSA: Business Administration

101 - Introduction to Law and the Legal Process—3 S.H.

A study of the 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, contracts, torts, family law, alternate dispute resolution, and remedies. Not open to those having 15 or more credits in business.

106 - Introduction to Business—3 S.H.

Quarter Course: BUSA 110.

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.

291 - Legal Environment of Business—3 S.H.

An introduction to the legal environment of business including dispute resolution systems and regulations affecting managerial decision making. Grade only.

301 - Business Law I—3 S.H.

Quarter Course: BUSA 310.

Legal background, contracts, criminal law, bailments, carriers, agency, torts, sales and commercial paper. Grade only.

311 - Business Law II—3 S.H.

Partnerships, corporations, bankruptcy, secured transactions, real and personal property, trusts and estates, and antitrust, securities, insurance, trademark, copyright, employment law, wills and consumer protection. Prerequisite: BUSA 301 or instructor's permission. Grade only.

326 - Business and the Future—3 S.H.

Quarter Course: BUSA 328.

Using mainly 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 instructor's permission. Grade only.

376 - Topics in Business—1-3 S.H.

Quarter Course: BUSA 327.

An analysis of current topics issues relevant to the milieu of business. The subject matter to be offered each semester is announced in advance by the department. May be repeated as topics change. Grade only.

398 - Internship—1-9 S.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 Problems—3 S.H.

Prerequisite: courses that must be completed prior to an internship vary by program. See department for list of requirements. Minimum 2.5 GPA. Grade only.

411 - International Business Law—3 S.H.

Quarter Course: BUSA 320.

A study of a variety of transnational business transactions and applicable legal regulations. Prerequisite: BUSA 291 or BUSA 301. Grade only.

421 - Consumer Law—3 S.H.

Quarter Course: BUSA 325.

A study of the major issues affecting consumers. Included are sales practices, warranties, advertising, credit extension, rates and disclosure requirements, collections, remedies, and housing. Prerequisite: BUSA 291 or BUSA 301. Grade only.

431 - Real Estate Law—3 S.H.

Quarter Course: BUSA 430.

An analysis of the legal system and real property, including the transfer of real estate, land use and regulations, landlord, tenant, estates and interests in real estate, and financing of the real estate transaction. Prerequisite: BUSA 311. Grade only.

441 - Health Law—3 S.H.

Quarter Course: BUSA 460.

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; advanced care directives, assisted suicide, and surrogate parenting. Prerequisite: BUSA 301. Grade only.

451 - Environmental Law—3 S.H.

Quarter Course: BUSA 432.

A legal study of a broad range of domestic and international environmental issues. Analysis of the environmental policy perspectives of NEPA, RCRA, CERCLA, Clean Air Act, Clean Water Act, Wetland Development, and Acid Rain. Prerequisite: BUSA 301. Grade only.

486 - Independent Studies in Business—1-3 S.H.

Quarter Course: BUSA 480G.

Offers the advanced student an opportunity to do additional reading and/or research in areas of special interest. Prerequisite: instructor's permission. Total credits may not exceed 6 S.H. Grade only.

491 - Seminar in Business Law—3 S.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. Grade only.

DIS: Decision and Information Systems

202 - Microcomputers in Business—3 S.H.

Quarter Course: BUSA 200.

An introduction to some of the more commonly used software packages for business decision-making. Spreadsheet, business graphics, database and integrated software are introduced. Grade only.

220 - Business Statistics—3 S.H.

Quarter Course: BUSA 207.

Elementary business statistics including descriptive measures, elementary probability, sampling of distributions, and statistical inference. Prerequisites: MATH 110, MATH 120, MATH 140 or instructor's permission. Grade only.

312 - Business Computer Programming—3 S.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. Grade only.

320 - Intermediate Business Statistics—3 S.H.

Quarter Course: BUSA 335.

A continuation of Business Statistics I, including Chi-Square Tests, regression and correlation, and analysis of variance. Prerequisite: DIS 220 or instructor's permission. Grade only.

332 - Business Programming Tools—3 S.H.

Quarter Course: BUSA 313.

Introduction to advanced programming tools. The student will document, compile, test and debug business application problems using new application development tools and techniques. Prerequisite: DIS 312 or instructor's permission. Grade only.

340 - Management Science—3 S.H.

Quarter Course: BUSA 372.

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. Prerequisite: DIS 320 or instructor's permission. Grade only.

342 - Advanced Business Computer Applications—3 S.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. Prerequisite: DIS 312 or instructor's permission. Grade only.

362 - Management Information Systems—3 S.H.

An introduction to basic concepts of Management Information System design, implementation and control. Application of computer-based MIS and decision models to business and management situations and problems. Prerequisite: DIS 202 or instructor's permission. Grade only.

452 - Management of Telecommunication Systems—3 S.H.

Quarter Course: BUSA 461.

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 prin-

ciples of managing data and voice communications and network security. Various commercial products are surveyed. The necessity of managing telecommunications in business is emphasized and issues in applying telecommunications in corporate environments are discussed. Also, the effects of regulatory environment in telecommunications industry are covered. Prerequisite: DIS 362. Grade only.

460 - Project Planning and Control—3 S.H.

The questions of efficiency and effectiveness are addressed through analysis of the project management process and installation of project management methodologies. Different types of projects are presented that can best be attacked by different kinds of project management methodologies. Implementation risks of large-scale project processes are discussed in reference to various application areas, e.g., manufacturing and service operations, information system design, or engineering. Prerequisite: DIS 220. Grade only.

462 - Decision Support Systems—3 S.H.

This course focuses on complex management decision activities which require extensive use of information and modeling. 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. The conceptual framework as well as practical application of DSS are discussed. Prerequisite: DIS 362 and DIS 340 or instructor's permission. Grade only.

482 - Management of Information Technology—3 S.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: DIS 362. Grade only.

492 - Topics in MIS—3 S.H.

The major focus of this course is on the advanced and complex concepts of Information Systems Technology. The objective is to provide perspective for adapting to Information Systems Technology. Key conceptual frameworks of MIS, as well as cutting-edge business application development technologies are presented. Prerequisite: DIS 362. Grade only.

HCM: Health Care Management

213 - Introduction to Health Care Systems—3 S.H.

Quarter Course: HADM 320.

The systems for delivery and financing of public and private health services, the types and functions of providers, and characteristics of inter-related industries involved in health care. Prerequisites: DIS 220, ECON 201 and ECON 202. Grade only.

223 - Health Care Management - Field Experience—1 S.H.

Elective course requiring a minimum of 80 clock hours experience in any licensed and accredited health setting. Grade only.

313 - Health Systems Management—3 S.H.

Quarter Course: HADM 425, HADM 475.

Managerial planning and decision-making in a regulated environment; legal and economic constraints, competitive strategies, organization and coordination of vertically integrated health systems. Includes operations management principles and quality improvement in distinctive health services situations. Prerequisites: HCM 213 and MGMT 315. Grade only.

393 - Practicum in Health Care Management—6 S.H.

Quarter Course: HADM 490.

Supervised experiences in a health organization planned with the approval of a qualified preceptor and the student's faculty advisor. Requires a minimum of 400 clock hrs in an approved work plan, and should be taken in summer prior to student's senior year. Prerequisites: Business Core Courses and HCM 213 or instructor's permission. Grade only.

403 - Long-Term Care Systems Management—3 S.H.

Quarter Course: HADM 405.

Elective course primarily for majors intending to enter this field of health care. Covers programs and services designed to meet the needs of the aged and disabled including: Health care and medical needs, facilities and services for long-term residents, legal/regulatory and funding provisions for skilled nursing facilities and other LTC services and facilities. Prerequisites: HCM 213 and SOC 450. Grade only.

453 - Senior Seminar—3 S.H.

Quarter Course: HADM 495, HADM 475.

Advanced course focusing on strategically important issues and trends, and most recent advances and social/political developments in U.S. health care. Required for all majors and includes significant independent research with original applied studies in health organizations. Prerequisites: All other core requirements and instructor's permission. Grade only.

MGMT: Management

315 - Principles of Management—3 S.H.

Quarter Course: MGMT 370.

Analysis of the functions performed by managers of all organizations, interpersonal implications and how current managerial problems are related. Prerequisites: ACCT 211 and ECON 201 or instructor's permission for non-business majors only. Grade only.

317 - Management of Human Resources—3 S.H.

Quarter Course: MGMT 375.

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 211, ECON 201 and MGMT 315 or instructor's permission for non-business majors only. Grade only.

325 - Organizational Dynamics—3 S.H.

Quarter Course: MGMT 490.

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 211, ECON 201 or instructor's permission. Grade only.

365 - Independent Readings in Management—1-3 S.H.

Quarter Course: MGMT 481.

To provide more background in management, three books of the student's choice (with concurrence of faculty advisor) are read for each credit desired. Primary source is WSU 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 instructor's permission. Limit of 9 credits of independent study per program. Grade only.

377 - Independent Readings in Human Resources—1-3 S.H.

Quarter Course: MGMT 482.

To provide more background in human resources, three books of the student's choice (with concurrence of faculty advisor) are read for each credit desired. Primary source is WSU library. Chapter summaries and evaluations are requested for each book as well as an integrative report, comparing and contrasting each book with each other. Pre-requisite: upper division status or instructor's permission. Limit of 9 credits of independent study per program. Grade only.

387 - Independent Readings in Labor Relations—1-3 S.H.

Quarter Course: MGMT 483.

To provide more background in labor relations, three books of the student's choice (with concurrence of faculty advisor) are read for each credit desired. Primary source is WSU 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 instructor's permission. Limit of 9 credits of independent study per program. Grade only.

415 - Theories of Management—3 S.H.

Quarter Course: MGMT 470.

Study of various modern theories of management and organization. Application of these theories to actual management situations is also examined. Prerequisite: MGMT 315. Grade only.

417 - Compensation—3 S.H.

Quarter Course: MGMT 461.

Issues, theories, and policies in the areas of wage and salary administration and employee compensation. Prerequisites: ACCT 211, ECON 201, ECON 202, MGMT 315 and MGMT 317 or instructor's permission. Grade only.

425 - Small Business Management—3 S.H.

Quarter Course: MGMT 427.

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: DIS 220 and MGMT 315 or instructor's permission.

Grade only.

427 - Management Development—3 S.H.

Quarter Course: MGMT 463G.

This course focuses 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 315 and MGMT 317 or instructor's permission. Grade only.

435 - Managing for Quality—3 S.H.

Quarter Course: MGMT 495.

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: POM 334, MGMT 315 and Senior standing or instructor's permission. Grade only.

437 - Labor Relations—3 S.H.

Examination of labor organization structure, conflict, and practice, including the scope of major labor legislation, and the practical differences between labor and management, both public and private sector, over wages, hours and working conditions. Prerequisites: MGMT 315 and MGMT 317 or instructor's permission. Grade only.

447 - International Labor Relations—3 S.H.

Quarter Course: MGMT 380.

A study of foreign labor movements and analysis of current and historical problems confronting labor movements. Prerequisites: ACCT 211, ECON 201, ECON 202, MGMT 315 and MGMT 317 or instructor's permission. Grade only.

455 - International Business—3 S.H.

Quarter Course: MGMT 471.

A study of how managing abroad differs from managing at home, from both strategic and operations oriented perspective. Prerequisite: MGMT 315 or instructor's permission. Grade only.

457 - Problems in Management of Human Resources—3 S.H.

Quarter Course: MGMT 475.

Controversial, practical situations involving people at work are examined with an eye to giving greater insight into the complexities of working effectively with others within immediate work groups and beyond. Prerequisite: ACCT 211, ECON 201, MGMT 315 and MGMT 317 or instructor's permission. Grade only.

467 - Staffing and Evaluation—3 S.H.

Personnel Staffing and Evaluation. Examination of personnel staffing and evaluation including EEO and Affirmative Action requirements. Areas covered will include recruitment, selection, job analysis, and performance appraisal. Prerequisite: ACCT 211, ECON 201, DIS 220, MGMT 315 and MGMT 317 or instructor's permission. Grade only.

475 - Seminar in International Management—3 S.H.

A study of how and why Multinational Organizations need to adapt their management tasks and practices to different International settings, that they operate in. The course will incorporate the study and intensive discussion of latest literature and case studies in this field. Prerequisite: MGMT 315 or instructor's permission. Grade only.

495 - Strategic Management—3 S.H.

Quarter Course: BUSA 498.

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 and Senior standing. Grade only.

POM: Production and Operations Management

334 - Production and Operations Management—3 S.H.

Quarter Course: POM 330.

An analytical approach to manufacturing and service organizations covering such topics as: competitive priorities, total quality management, operations strategy, inventory management, production and project planning and control, partnership, total productive maintenance, and logistics. Prerequisite: DIS 220. Grade only.

344 - Purchasing—3 S.H.
Quarter Course: MGMT 323.

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: POM 334. Grade only.

414 - Production Planning and Control—3 S.H.
Quarter Course: POM 431.

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, with secondary emphasis on advanced topics in the following areas: material requirements planning, Just-in-Time, theory of constraints, and scheduling. Prerequisite: POM 334. Grade only.

424 - Management of Technology—3 S.H.
Quarter Course: POM 432.

This course addresses issues relevant to the management of technological changes in manufacturing and service operations. Recent advancements in computerization and automation necessitate a system's view of the operations function, with particular emphasis on the link between technology, operations, and marketing strategies. Prerequisite: POM 334. Grade only.

434 - Quality and Productivity Management—3 S.H.
Quarter Course: POM 433.

Study of the principles of quality and productivity management is the main subject of this course. Emphasis is placed on new and advanced concepts found in the U.S. and abroad, including such topics as systems thinking, reducing complexity, ISO 9000, and activity-based costing. Pre-requisite: POM 334. Grade only.

444 - Operations Strategy—3 S.H.

Quarter Course: POM 440 Cases in POM.

This course is an application of production and operations management principles in real life situations. This is done through analysis of cases, with

particular emphasis on linking operations strategy to marketing strategy. Prerequisite: POM 414. Grade only

494 - Current Topics in POM—3 S.H.

Quarter Course: POM 439.

This course will explore some of the latest techniques and concepts in POM. The objective of this course is to relate these techniques and concepts to a systems view of the operations function.

Prerequisite: POM 334. Grade only.

CHEMISTRY

Pasteur Hall, Room 312, (507) 457-5290

Ng (Chairperson), Engen, Franz (Director of S.E. MN Analytical Service), Kopitzke, Miertschin, Nalli, Svingen.

Faculty

Mark A. Engen, Assistant Professor; B.S., Bemidji State University; Ph.D., Montana State University; 1997 -
Jeanne L. Franz, Assistant Professor; B.A., Augustana College; Ph.D., University of Minnesota-Twin Cities; 1996 -
Sara M. Hein, Assistant Professor; B.S., University of Wisconsin-LaCrosse; Ph.D.; University of Iowa; 2000-
Robert W. Kopitzke, Assistant Professor; B.S., M.S., Ph.D., Florida Institute of Technology; 1999 -
Charla S. Miertschin, Associate Professor, Chemistry; B.S. Abilene Christian University; Ph.D. Texas A & M University, 1993
Thomas W. Nalli, Associate Professor; B.S., Union College, Schenectady (NY); M.S., Ph.D., University of Rochester; 1995-
C.B. William Ng, Professor; B.S., M.S., Ph.D., University of British Columbia; 1986 -
Schneider, Jamie L., Assistant Professor; B.S. Winona State University; Ph.D. University of Minnesota - Twin Cities; 2000 -
Bruce A. Svingen, Professor; B.A., St. Olaf College; Ph.D., Michigan State University; 1987 -

Pre-Professional Sequences:

Pre-professional Sequences are not degree programs (e.g. major or minor) at WSU. They are programs which are preparatory for a degree at another college or university. The Pre-Professional Sequences offered through the Chemistry Department include:

Pre-Medicine (Allopathic and Osteopathic)

Pre-Pharmacy

SEE the Pre-Professional Sequences section for more information about any of these Pre-Professional Sequences.

The Department offers three bachelor of science majors to prepare students to enter business, industry, professional schools, graduate schools in chemistry and the environmental field. 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 of natural products, study of organic reaction mechanisms, analytical work and environmental studies for local industries and government, thermodynamics, kinetic, and quantum mechanical studies of multi-component systems, toxicology and drug metabolism, computer modeling in chemistry, and synthesis, characterization, and applications of polymers. The Department is home to the Southeast 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 science). 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, one in polymer chemistry (Option B), one in Teaching, and one in Chemistry.

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. as a professional chemist.

Pass/No Credit Courses

Undergraduate students may elect any chemistry course on a pass/no credit basis. Students with a major or minor in chemistry may not count P/NC courses toward the Chemistry major or minor.

B.S MAJOR CHEMISTRY - OPTION A

63-67 S.H. (No Minor Required)

REQUIRED COURSES (57-61 S.H.)

Chemistry (41 s.h.)

- 212, 213 Principles of Chemistry I, II (8)
- 350, 351 Principles of Organic Chemistry I, II (9)
- 360, 361 Chemical Information I, II (2)
- 412, 413, 414, 415 Physical Chemistry & Lab I, II (9)
- 425, 426 Analytical Chemistry I, II (8)
- 450 Advanced Inorganic Chemistry I (4)
- 475 Seminar in Chemistry (1)

NOTE: Students should begin the math and chemistry sequences at the same time.

Mathematics (8-12 s.h.)

- * 120 Precalculus (4)
- * 160, *165, Calculus I, II (8)

NOTE: Precalculus 120 (4) may be omitted if a student has otherwise met the prerequisite for 160.

Physics (8 s.h.)

- * 221, 222 University Physics I, II (8)
- * These courses may be used to satisfy certain General Education requirements.

ELECTIVES (6 S.H.)

Chemistry Electives.

B.S MAJOR CHEMISTRY - OPTION B

74-78 S.H. (No Minor Required)

(American Chemical Society certification will be given to students completing this option.)

REQUIRED COURSES (61-65 S.H.)

Chemistry (45 s.h.)

- 212, 213 Principles of Chemistry I, II (8)
- 350, 351 Principles of Organic Chemistry I, II (9)
- 360, 361 Chemical Information I, II (2)
- 400 Biochemistry I (4)
- 412, 413, 414, 415 Physical Chemistry & Lab I, II (9)
- 425, 426 Analytical Chemistry I, II (8)
- 450 Advanced Inorganic Chemistry I (4)
- 475 Seminar in Chemistry (1)

NOTE: Students should begin the math and chemistry sequences at the same time.

Mathematics (8-12 s.h.)

- * 120 Precalculus (4)
- * 160, *165, Calculus I, II (8)

NOTE: Precalculus 120 (4) may be omitted if a student has otherwise met the prerequisite for 160.

Physics (8 s.h.)

- * 221, 222 University Physics I, II (8)

- * These courses may be used to satisfy certain General Education requirements.

ADDITIONAL REQUIREMENTS (5 S.H.)

- 430 Individual Problems in Chemistry (3)
- 451 Advanced Inorganic Chemistry II (2)

CHEMISTRY ELECTIVES (8 S.H.)

- Chemistry 401, 410, 411, 417, 420, 427, 428, 436, 438, 439, 447, 470, 472

NOTE: Other suggested electives: computer programming, biology, geology, German, and keyboarding.

B.S. MAJOR CHEMISTRY - ENVIRONMENTAL SCIENCE OPTION

122-123 S.H. (No Minor Required)

(Alliance with environmental science options of other departments is given under "Environmental Science" elsewhere in this catalog.)

GENERAL EDUCATION COURSES (30 S.H.)

Skill Requirements (9 s.h.)

- ENG 111 English Composition (4)
- CMST 191 Speech Communication (3)
- MATH (3 s.h. included below with MATH 160, 165)

Courses selected from approved list of physical activities courses (2)

Humanities (6 s.h.)

Courses selected from approved list of humanities courses and two departments

Natural Science (0 s.h.)

(6 s.h. included below with BIOL 241, 242; PHYS 221, 222; GEOS 120, 225, 240)

Social Science (6 s.h.)

Courses selected from approved list of social science courses and two departments

Different Culture (6 s.h.)

Courses selected from approved list of different culture courses and two Departments

Allied Studies (3 s.h.)

Course(s) selected from approved list of allied studies courses.

Additional credits required to reach the 45 (30 + 3 MATH + 6 Natural Science + 6 additional) credit requirement are at the student's discretion, provided the student takes no more than two courses per General Education category from a single department.

REQUIRED COURSES (92-93 S.H.)

CHEMISTRY CORE COURSES (29 S.H.)

- 212 Principles of Chemistry I (4)
- 213 Principles of Chemistry II (4)
- 350 Principles of Organic Chemistry I (4)
- 351 Principles of Organic Chemistry II (5)
- 412 Physical Chemistry I (3)
- 413 Physical Chemistry I Lab (1)
- 425 Analytical Chemistry I (4)
- 426 Analytical Chemistry II (4)

ENVIRONMENTAL SCIENCE OPTION REQUIREMENTS (10 S.H.)

- 320 Environmental Chemical Analysis (4)
- 436 Topics in Environmental Chemistry (3)
- 430 Individual Problems (2)
- 475 Chemistry Seminar (1)

ENVIRONMENTAL SCIENCE:

CHEMISTRY OPTION ELECTIVES (4 S.H.)

- 400 Biochemistry I (4)
- 401 Biochemistry II (3)
- 410 Polymer Chemistry (2)
- 414 Physical Chemistry II (3)
- 415 Physical Chemistry Lab II (2)
- 420 Topics in Industrial Chemistry (2)
- 427 Topics in Instrumental Chemistry (2)
- 428 Chemical Separations (3)
- 450 Advanced Organic Chemistry (2)
- 470 Isotope, Nuclear and Radiochemistry (2)
- 475 Seminar in Chemistry

or other advanced chemistry electives as approved by the Chemistry Department

OTHER REQUIRED COURSES (49-50 S.H.)**Biology (12 s.h.)**

- * 241, *242 Principles of Biology I, II (8)
- 312, 313 General Ecology lecture and lab (4)

Geoscience (12 s.h.)

- * 120 Dynamic Earth (4)
- * 130 Earth and Life through Time (4)
- 240 Hydrogeology (4)

Mathematics (8 s.h.)

- * 160, *165 Calculus I, II (8)

Physics (8 s.h.)

- * 221, 222 University Physics I, II (8)

Two of the following three courses (6 s.h.)

- BUSA 451 Environmental Law (3)
- ECON 315 Environmental and Natural Resources (3)
- PLSI 340 Environmental Policy (3)

One of the following eight courses (3-4 s.h.)

- BIOL 315 Environmental Biology (3)
- BIOL 335 Plant Ecology (4)
- BIOL 360 Entomology (4)
- BIOL 415 Ecology of Large Rivers (4)
- BIOL 420 Limnology (4)
- GEOS 310 Non-Renewable Natural Resources (3)
- GEOS 315 Surficial Processes and Soils (4)
- GEOS 420 Applied Hydrogeology (4)

- * These courses may be used to satisfy certain General Education Requirements.

B.S. MAJOR - CHEMISTRY (Teaching)

80 S.H. (No Minor Required)

The Minnesota Board of Teaching (BOT) has changed the requirements for teaching licensure. The Chemistry Department, in cooperation with other science departments and the College of Education, has developed a revised BOT approvable program which will be implemented as soon as possible. Students should be aware that the program described below requires them to work closely with their academic advisor to ensure that they will be able to graduate with a BOT approved degree.

NOTE: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area listed below. Refer to these requirements in the Effective Educator Handbook or in the Education Department section of this catalog. A 2.50 GPA or higher in the courses of this major is a requirement for successful completion.

REQUIRED COURSES (26 S.H.)**Chemistry (26 s.h.)**

- 212 Principles of Chemistry I (4)
- 213 Principles of Chemistry II (4)
- 340 Organic Chemistry Survey OR
- 350 Principles of Organic Chemistry I (4)

Students planning to take 351 as one of the chemistry electives below should take 350.

- 360 Chemical Information I (1)
- 361 Chemical Information II (1)
- 412 Physical Chemistry I (3)
- 413 Physical Chemistry I Lab (1)
- 425 Analytical Chemistry I (4)
- 430 Individual Problems (1)
- 431 Guided Study in Teaching Chemistry (2)
- 475 Seminar in Chemistry (1)

ADDITIONAL REQUIREMENTS (42 S.H.)**Biology (8 s.h.)**

- * 241 Principles of Biology I (4)
- * 242 Principles of Biology II (4)

Geoscience (8 s.h.)

- * 120 Dynamic Earth (4)
- * 130 Earth Through Life and Time (4)

Mathematics (8 s.h.)

- * 160 Calculus I (4)
- * 165 Calculus II (4)

Physics (12 s.h.)

- * 221 University Physics I (4) AND
- 222 University Physics II (4) OR
- * 201 General Physics (4) AND
- 202 General Physics (4)
- 311 Science Teaching Methods (4)
- HHP *204 Personal and Community Health
- SPED 400 Education of Exceptional Children/Youth

- * Course may be used to satisfy certain General Education requirements

ELECTIVES (12 S.H.)**Chemistry (8 s.h.)**

Any 300 level or higher chemistry courses or other advanced chemistry electives as approved by the Chemistry Department.

Natural Science (4 s.h.)

Any 200 level or higher course offered by Biology, Geoscience, Mathematics or Physics Department.

PROFESSIONAL EDUCATION**SEQUENCE (32 S.H.)**

EDUC 305, 308, 312, 429, 449, 459, 465

WISCONSIN CERTIFICATION REQUIREMENTS FOR CHEMICAL CONCENTRATION

(22 S.H.)

Select credits under "Required Courses" and "Electives" to give a concentration of 22 s.h. of chemistry. Other requirements for Wisconsin certification are:

- Biology 104 (3)
- Biological Science Elective (3)
- Geoscience Elective (3)

B.S. MINOR CHEMISTRY - OPTION A

30-34 S.H.

REQUIRED COURSES (28-32 S.H.)**Chemistry (24 s.h.)**

- 212, 213 Principles of Chemistry I, II (8)
- 350, 351 Principles of Organic Chemistry I, II (9)
- 412 Physical Chemistry (3)
- 425 Analytical Chemistry I (4)

Mathematics (4-8 s.h.)

- * 120 Precalculus (4)
- * 160 Calculus (4)

NOTE: Precalculus 120 (4) may be omitted if a student has otherwise met the prerequisite for 160. MATH 150 (3) and MATH 155 (3) can be used to satisfy 160 in this minor.

- * These courses may be used to satisfy certain General Education requirements.

ELECTIVES (2 S.H.)

Chemistry Electives

B.S. MINOR BIOCHEMISTRY

29 S.H.

REQUIRED COURSES (29 S.H.)**Chemistry (25 s.h.)**

- 212, 213 Principles of Chemistry I, II (8)
- 350, 351 Principles of Organic Chemistry I, II (9)
- 400, 401, 402 Biochemistry (8)

NOTE: 340 Organic Chemistry (4) may be substituted for 350. Mathematics (4 s.h.)

- * 120 Precalculus (4) OR
- * 160 Calculus I (4)

NOTE: MATH 150 (3) and MATH 155 (3) can be used to satisfy 160 in this minor.

- * These courses may be used to satisfy certain General Education requirements.

B.S. MINOR CHEMISTRY - OPTION B

27-31 S.H.

REQUIRED COURSES (27-31 S.H.)

Chemistry (23 s.h.)

- 212, 213 Principles of Chemistry I, II (8)
- 350, 351 Principles of Organic Chemistry I, II (9)
- 410 Polymer Chemistry (2)
- 411 Synthesis and Characterization of Polymers (2)
- 417 Intermediate Polymer Chemistry (2)

NOTE: 340 Organic Chemistry (4) may be substituted for 350.

Mathematics (4-8 s.h.)

- * 120 Precalculus (4)
- * 160 Calculus I (4)

NOTE: Precalculus 120 (4) may be omitted if a student has otherwise met the prerequisite for 160. MATH 150 (3) and MATH 155 (3) can be used to satisfy 160 in this minor.

* These courses may be used to satisfy certain General Education requirement

B.S. MINOR CHEMISTRY (Teaching)

28 S.H.

REQUIRED COURSES (18 S.H.)

Chemistry (14 s.h.)

- 212, 213 Principles of Chemistry I, II (8)
- 340 Organic Chemistry (4) OR
- 350 Principles of Organic Chemistry (4)
- 431 Guided Study in Teaching Chemistry (2)

Physics (4 s.h.)

- 311 Science Teaching Methods (4)

ELECTIVES (10 S.H.)

- 320, 351, 352, 360, 361, 400, 401, 425, 426, 412, 413, 414, 415, 427, 436, 438, 450, 451, 465, 470

or other Chemistry electives as approved by the Chemistry Department.

Chemistry Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicums. The P/NC option is available to non-majors unless otherwise noted.

100 - Chemistry Appreciation—3 S.H.

Chemical 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. Not open to students with credit in higher numbered chemistry courses. Offered each semester.

108 - Introductory General Chemistry—3 S.H.

Intended to introduce the students to chemistry. Two lecture and one two-hour laboratory/discussion 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 CHEM 212 for credit or with the department's permission, they may go directly in to CHEM 213. Offered yearly.

204 - Unified Science I—3 S.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. Prerequisite: CHEM 100. Offered irregularly.

208 - General, Organic and Biochemistry I—3 S.H.

The first course in the introductory sequence (208,209) in the principles of chemistry and the molecular basis for life; descriptive, theoretical and laboratory topics. Covers basic principles of inorganic and physical chemistry. Two lecture and one laboratory/discussion period per week. Recommended for pre-nursing, pre-agriculture, pre-forestry, and pre-fishery and wildlife students. This course should not be elected by students expecting to take CHEM 340,

CHEM 350 or CHEM 400. Offered yearly.

209 - General, Organic and Biochemistry II—4 S.H.

The second course in the introductory sequence (208,209) in the principles of chemistry and the molecular basis for life; descriptive, theoretical and laboratory topics. Covers organic and biochemistry. Three lecture and two laboratory/discussion hours per week. Recommended for pre-nursing, pre-agriculture, pre-forestry, and pre-fishery and wildlife students. CHEM 209 cannot substitute for CHEM 213. This sequence should not be elected by students expecting to take CHEM 340, CHEM 350 or CHEM 400. Offered yearly.

212, 213 - Principles of Chemistry I, II—Each 4 S.H.

Quarter Course: 212, 213, 214.

An in-depth study of the principles of chemistry including atomic structure, the chemical bond, solutions, thermodynamics, kinetics, acid-base theory, oxidation-reduction, complex ion equilibrium and electrochemistry. Organic and inorganic examples are used when appropriate throughout the courses, and a short unit on organic chemistry is included. Laboratory and lecture are coordinated.

Prerequisite: high school intermediate algebra or concurrent enrollment in MATH 120 or a higher-numbered mathematics course. Offered yearly.

320 - Environmental Chemistry—4 S.H.

An introductory study of current environmental issues, emphasizing the chemistry and chemical interactions underlying these topics. The topics may include, but are not limited to global warming, depletion of stratospheric ozone, ground level air chemistry and air pollution, organic chemicals in the environment, toxic heavy metals, chemistry of natural waters, and energy production and its environmental consequences. Lecture and Laboratory. Prerequisite: one year of general chemistry or consent of instructor. Offered yearly.

340 - Organic Chemistry Survey—4 S.H.

A survey of the chemistry of organic compounds with emphasis on structure, properties, synthesis, and reactions of the major functional group families. Mechanisms of major reaction types are explored. Laboratory emphasizes separation techniques and synthesis. Prerequisites: CHEM 212 and CHEM 213. Not open to students who expect to take CHEM 350. Offered yearly.

341 - Organic and Polymer Chemistry—4 S.H.

A study of the basic classes of organic compounds and polymers. Bonding and isomerism, hydrocarbons, aromatics, organohalogen compounds, oxygen and nitrogen containing functional groups and stereochemistry. Selected topics on monomers and polymers will be presented as the respective units in organic chemistry are covered. Three lecture periods and one laboratory per week. Prerequisite: CHEM 213. Not open to students expecting to take CHEM 350, CHEM 351 and CHEM 410. Offered yearly.

350 (4 S.H.), 351 (5 S.H.) Principles of Organic Chemistry I, II

Quarter Course: 350, 351, 352.

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, CHEM 212 and CHEM 213; for 351, CHEM 350 or CHEM 340 or CHEM 341 with instructor's permission. Offered yearly.

352 - Organic Chemistry—2 S.H.

A lecture-only course designed to follow CHEM 350 with emphasis on aromatics, spectroscopy, functional groups and other topics not covered in CHEM 350. Two lecture periods per week. Prerequisite: CHEM 350. Not open to students expecting to take CHEM 351. This course does not follow CHEM 351. Offered yearly.

354 - Characterization of Organic Compounds—2 S.H.

Laboratory methods of identification of organic compounds, including the separation of mixtures. Instrumental methods and functional group reactions are employed. Prerequisite: CHEM 351. Offered irregularly.

360, 361 Chemical Information I, II—Each 1 S.H.

Quarter Course: 360, 361, 362.

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. CHEM 361 includes chemical information retrieval from the internet, the preparation of a bibliography on

a chemical topic using exhaustive manual and computer searching of the world's literature. Prerequisite: for 360, credit or concurrent enrollment in CHEM 340 or CHEM 350; for 361, CHEM 360. Offered yearly.

399 - Chemistry Internship—1-6 S.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 option available but only up to 4 S.H. may be taken for letter grade. Prerequisite: CHEM 425. Offered yearly.

400 (4 S.H.), 401 (3 S.H.) Biochemistry I and II

Quarter Course: 400, 401, 402.

Introduction to the chemistry of living organisms; emphasis on the structure and function of proteins, carbohydrates, lipids, and nucleic acids; enzymatic catalysis, thermodynamics, control and integration of metabolic processes; nucleotide metabolism and expression and transmission of genetic information. Prerequisite: for 400, CHEM 340 or CHEM 350 and CHEM 412 (or instructor's permission); for 401, CHEM 400. Offered yearly.

402 - Biochemistry Laboratory II—1 S.H.

Experiments accompanying CHEM 401. Laboratory work should be taken concurrently with CHEM 401 but can be taken following successful completion of CHEM 401. Prerequisite: CHEM 400. Offered yearly.

410 - Polymer Chemistry—2 S.H.

Chemistry of synthetic polymerization process 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. Prerequisites: CHEM 340 or CHEM 351 and CHEM 412 or ENG 345. Offered each semester.

411 - Synthesis and Characterization of Polymers—2 S.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. Prerequisite: CHEM 410. Offered yearly.

412 - Physical Chemistry I—3 S.H.

Quarter Course: 412, 413.

States of Matter and Equation of States. Thermodynamics of one component and multi-component systems. Equilibria. Computer applications. An introduction to quantum mechanics and spectroscopy. Prerequisites: one year each of college chemistry and physics, and credit or concurrent enrollment in Calculus. Offered yearly.

413 - Physical Chemistry Laboratory I—1 S.H.

Quarter Course: 414.

Experiments accompanying CHEM 412. Laboratory work should be taken concurrently with CHEM 412 but can be taken following successful completion of the course. Computer applications. Prerequisite: CHEM 412. Offered yearly.

414 - Physical Chemistry II—3 S.H.

Quarter Course: 413, 415.

Quantum Chemistry. Chemical Kinetics: rate laws, mechanisms, temperature-dependence, catalysis. 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: CHEM 412. Offered yearly.

415 - Physical Chemistry Laboratory II—2 S.H.

Quarter Course: 416.

Experiments accompanying CHEM 414. Laboratory work should be taken concurrently with CHEM 414 but can be taken following successful completion of the course. Prerequisite: CHEM 412. Offered yearly.

417 - Intermediate Polymer Chemistry—2 S.H.

This course consists of a series of short courses chosen from areas of contemporary polymer chemistry. Topics include such areas as Dendrimers and hyperbranched macromolecules, "living" radical polymerization, living cationic polymerization, inorganic and organometallic polymers and liquid crystalline polymers. Prerequisite: CHEM 410. Grade only. Offered yearly.

420 - Topics in Industrial Chemistry—2 S.H.

Applications of chemistry in industry. The chemistry and technology of selected industrial processes. Prerequisite: CHEM 340 or CHEM 350. Offered every two or three years.

425, 426 - Analytical Chemistry I & II—Each 4 S.H.

Quarter Course: 425, 426.

A sequence of courses stressing modern analytical chemistry. A study of the theory and practice of the quantitative examination of chemical systems. CHEM 425 covers volumetric and fundamental visible spectrophotometric methods. CHEM 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, CHEM 425 and CHEM 412. Offered yearly.

427 - Topics in Instrumental Chemistry—1-2 S.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 instructor's permission. Offered every two or three years.

428 - Chemical Separations—3 S.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: CHEM 425. Offered irregularly.

430 - Individual Problems in Chemistry—1-3 S.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. Prerequisites: 13 semester hours in chemistry and instructor's permission. May not be taken for more than 3 credits per semester; may be repeated to a total of 11 credits. Offered each semester.

431 - Guided Study in Teaching Chemistry—1-2 S.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 2 credits. Credits may not be applied toward "electives" category of other programs in chemistry. One credit offered each semester by arrangement.

436 - Topics in Environmental Chemistry—3 S.H.

This course covers advanced topics in environmental chemistry. Topics studied will depend upon the interests of the class and may include topics such as acid rain, environmental estrogens, bioaccumulation, and ozone depletion. Prerequisite: Chemistry 320. Offered yearly.

438 - Medicinal Chemistry—2 S.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: CHEM 340 or CHEM 350. Offered every two or three years.

439 - Biochemistry of Drug Metabolism—2 S.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: CHEM 401 or CHEM 209 and instructor's permission. Offered every three years.

447 - Advanced Organic Chemistry—2 S.H.

Chemical kinetics, thermodynamics, stereochemical concepts and the use of isotopes are applied to organic reaction mechanisms. The study of molecular orbital theory forms the basis for predicting reaction mechanisms. Lecture course. Prerequisites: CHEM 351 and CHEM 412. Offered every two or three years.

450 - Advanced Inorganic Chemistry I—4 S.H.

Descriptive and theoretical approaches to inorganic reactions and structures with emphasis on structural concepts including symmetry and group theory and molecular orbital theory. Laboratory work includes the preparation of various main group and transition metal compounds and use of modern instruments in characterizing these compounds. Prerequisite: CHEM 412. Offered yearly.

451 - Advanced Inorganic Chemistry II—2 S.H.

A continuation of the treatment of theoretical and descriptive inorganic chemistry introduced in CHEM 450. Prerequisites: CHEM 414 and CHEM 450. Offered yearly.

465 - History of Chemistry—1 S.H.

A chemistry course emphasizing the fascinating interplay of ideas during the development of the chemical body of knowledge. Prerequisite: one semester of organic chemistry. Offered irregularly.

470 - Isotope, Nuclear and Radiochemistry—2 S.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: CHEM 412. Offered every two or three years.

472 - Quantum Chemistry and Spectroscopy—2 S.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: CHEM 412. Offered every two or three years.

475 - Seminar in Chemistry—1 S.H.

Group discussions and papers presented in the field of chemistry. Prerequisite: 20 semester hours of chemistry. Offered yearly.

COMMUNICATION STUDIES

Performing Arts Center, Room 215, (507) 457-5230
Hatfield (Chairperson), Collie, Glueck, Herold, Kelley, Lintin, Reilly.

Faculty

Susan Collie, Assistant Professor; B.S., M.S., Illinois State University; 1989 -

Lisa Glueck, Assistant Professor; B.A., M.A., Washington State University, Pullman; 1993 -

Susan Hatfield, Professor; B.S., M.A., Miami University (OH); Ph.D., University of Minnesota-Twin Cities; 1981 -

Kelly Herold, Assistant Professor; B.C.S., Dickinson State University (ND); M.A., University of Northern Colorado, Greeley; Ph.D., University of Southern Mississippi, Hattiesburg; 1996 -

Kathryn Kelley, Associate Professor; B.A., Rosary College, River Forest (IL); M.A., University of Michigan; Ph.D., University of Minnesota-Twin Cities; 1992 -

Daniel Lintin, Assistant Professor; B.A., Buena Vista College, Storm Lake (IA); M.A., University of Minnesota-Twin Cities; 1994 -

Edward Reilly, Assistant Professor; B.A., Northern Illinois University; M.A., University of Maine; Ph.D., Louisiana State University; 1997 -

The Department of Communication Studies (CMST) provides 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 offers a major in Organizational Communication, a major and minor in Communication Studies, as well as a minor in Intercultural Communication. CMST also offers a teaching major with the English Department.

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 and 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 forensics: 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 a minimum overall GPA of 3.2 and a minimum major GPA of 3.6 are encouraged to see the department chair for details.

Pass/No Credit Courses

All courses except 191 and 499 can be taken on a P/NC basis. All courses taken to count toward a CMST major or minor (except CMST 399) must be taken for a grade.

Requirements for Declaring a Communication Studies Major

To declare a major in Communication Studies a student must:

- Have completed 15 academic credit hours at WSU, including CMST 191.
- Have a minimum overall GPA of 2.5.
- Have an initial conference with a CMST advisor.

OR

- *Have completed a minimum of 3 CMST courses.
- *Have a minimum overall GPA of 2.0
- *Have a minimum GPA of 2.5 in all CMST courses.

Students declaring a major or minor in CMST should anticipate a minimum of four academic semesters (not including summer sessions) to complete CMST courses in sequence.

Additional Graduation Requirements

A minimum GPA of 2.5 must be earned in courses taken for a CMST major and no grade below a C is accepted. These standards apply to both CMST courses and courses taken through other departments to fulfill CMST major requirements.

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 with a minor in Communication Studies are required to meet with their academic advisors every semester. Students majoring in Communication Studies may not minor in the department.

RECOMMENDED GENERAL EDUCATION

COURSES FOR MAJORS AND MINORS:

- 211 ACCT Financial Accounting Principles (3)
- 212 ACCT Managerial Accounting Principles (3)
- 106 BUSA Introduction to Business (3)
- 201 ECON Principles of Microeconomics (3)
- 200 GS Introduction to Global Studies (3)
- 110 PHIL Critical Thinking (3)
- 210 PSY General Psychology (3)
- 150 SOC Human Society (3)
- 148 WS Introduction to Women's Studies (3)
- 220 WS Power, Privilege, and Gender (3)

NOTE: These general education courses may serve as prerequisites to electives in the major. (These courses may change with the advent of the University Studies requirement.)

B.A. MAJOR - ORGANIZATIONAL COMMUNICATION OPTION

69 S.H. (No Minor Required)

REQUIRED COURSES (69 S.H.)

Foundations (9 s.h.)

- 281 Intercultural Communication (3)
- 282 Introduction to Communication Studies (3)
- 283 Introduction to Rhetorical Studies (3)

Competencies (9 s.h.)

- 261 Public Speaking (3)

One of the following:

- 196 Fundamentals of Interviewing (3)
- 266 Professional Communication Skills (3)
- 375 Argumentation and Advocacy (3)

One of the following:

- 210 ENG Advanced Expository Writing (3)
- 130 MCOM News Writing (3)

Theories (12 s.h.)

- 371 Discussion and Small Group Dynamics (3)
- 387 Interpersonal Communication (3)
- 389 Persuasive Communication (3)
- 466 Organizational Communication (3)

Tools (6 s.h.)

- 480 Communication Research Methods (3)

One of the following:

- 220 DIS Business Statistics (3)
- 231 PSY Statistics (3)
- 110 STAT Fundamentals of Statistics (3) (Recommended)
- 210 STAT Statistics (3)

Capstone (3 s.h.)

- 485 Senior Seminar in Communication Theory (3)

Applications (9 s.h.)

- 399 Internship (6)

One of the following:

- 280 Nonverbal Communication (3)
- 287 Conflict and Communication (3)
- 289 Gender and Communication (3)
- 356 Communication Technology (3)
- 385 Health Communication (3)

Management (6 s.h.)

- 317 Management of Human Resources (3)
- 325 Organizational Dynamics (3)

- 335 Management of Work Teams (3)
- 427 Management Development (3)
- 457 Problems in Management of Human Resources (3)

Psychology/Sociology/Global Studies/Philosophy (6 s.h., two different areas)

- 400 GS Global Studies Seminar (3)
- 331 PHIL Business Ethics (3)
- 325 PSY Social Psychology (3)
- 360 PSY Psychology of Work Behavior (3)
- 365 PSY Consumer Psychology (3)
- 425 PSY Organizational Psychology (3)
- 340 SOC Social-Cultural Anthropology (3)
- 423 SOC Race Relations and Minority Groups (3)
- 437 SOC Sociology of Organizations (3)

Mass Communication (9 s.h.)

- 130 News Writing (if not selected as writing course) (3)
- 175 Mass Communication Computer Applications (3)
- 230 News Gathering (3)
- 240 Public Relations (3)
- 275 Publication Design (3)
- 330 Feature Writing (3)
- 340 Public Relations Cases (3)
- 345 Public Relations Writing (3)
- 347 Public Relations Practicum (3)
- 440 Public Relations Campaigns (3)

B.A. MAJOR - COMMUNICATION STUDIES OPTION

42 S.H. (Minor Required)

REQUIRED COURSES (39 S.H.)

Foundations (9 s.h.)

- 281 Intercultural Communication (3)
- 282 Introduction to Communication Studies (3)
- 283 Introduction to Rhetorical Studies (3)

Skills (9 s.h.)

- 261 Public Speaking (3)
- 210 ENG Advanced Expository Writing (3)

One of the following:

- 196 Fundamentals of Interviewing (3)
- 266 Professional Communication Skills (3)
- 375 Argumentation and Advocacy (3)

Theories (12 s.h.)

- 371 Discussion and Small Group Dynamics (3)
- 387 Interpersonal Communication (3)
- 389 Persuasive Communication (3)
- 466 Organizational Communication (3)

Tools (6 s.h.)

- 480 Communication Research Methods (3)

One of the following:

- 220 DIS Business Statistics (3)
- 231 PSY Statistics (3)
- 110 STAT Fundamentals of Statistics (3) (Recommended)
- 210 STAT Statistics (3)

Capstone (3 s.h.)

- 485 Senior Seminar in Communication (3)

ELECTIVES (3 S.H.)

Any additional CMST course.

COMPUTER SCIENCE

Watkins Hall, Room 103, (507) 457-5385

Gegg-Harrison (Chairperson), Bunce, Cichanowski, Debnath, Francioni, Iyengar, Lin, Lundak,

Ouellette, Schumacher, Stroebel, Zhang

Faculty

Gary Bunce, Professor; B.S., North Dakota State University; M.A., Ph.D., University of New Mexico;

1971 -

Gerald W. Cichanowski, Professor; B.A., Winona State University; M.S., University of Minnesota; Ph.D., Michigan State University; 1983 -

Narayan Debnath, Professor; B.S., M.Phil., Calcutta University; M.S., Visva Bharati University; M.S., East Carolina University; M.S., Ohio State University; Ph.D., D.S.C., Jadavpur University; 1989 -

Joan Francioni, Professor; B.S., University of New Orleans; M.S., Ph.D., Florida State University; 1998 -

Timothy Gegg-Harrison, Professor; B.A., University of Missouri - Columbia; M.S., Ohio State University; Ph.D., Duke University (NC); 1992 -

Sudharsan Iyengar, Professor; B.E., Burdwan University; M.S., Ph.D., Louisiana State University and A & M College; 1989 -

Chi-Cheng Lin, Assistant Professor; B.S., National Chiao-Tung University; M.S., University of Minnesota-Duluth; Ph.D., University of Pittsburgh; 1997 -

Eugene Lundak, Associate Professor; B.S., M.S., Winona State University; M.S., University of Evansville (Indiana); 1985 -

Hugh F. Ouellette, Professor; B.S., Western Montana College; M.A., University of Illinois; M.A., Ball State University; Ed.D., University of Northern Colorado; 1972 -

Paul Schumacher, Associate Professor; B.A., M.Ed., St. Mary's College of Minnesota; M.A.T., Stanford University; 1988 -

Gary Stroebel, Professor; B.S.; M.S.; Ph.D. University of Minnesota; 1993 -

Mingrui Zhang, Assistant Professor, B.S.E.E., M.S., Peking University; M.S., University of South Florida; Ph.D., University of South Florida; 1999-

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, and education. Students will be prepared for careers in industry, education or further study at the graduate level.

Scheduling Recommendations

Incoming first-year and transfer students should consult a Computer Science 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 following three courses:

CS 234 Algorithms and Problem Solving I

CS 250 Algorithms and Problem Solving II

MATH 210 Discrete Mathematics and Foundations

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 Computer Science 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 491).

2. At least 18 credit hours from non-core course requirements or electives at or above the 300 level must be earned from WSU. Courses taken through the Minnesota State University Common Market Program do not satisfy this requirement.

Course Repetition Policy

Students are allowed to attempt a particular computer science course at most three times. It is considered an attempt each time the name of a student appears on a course's final grade roster.

Graduation with Honors

For graduation with Honors in Computer Science, a student must:

- A. Have completed one of the following majors:
Computer Science
Computer Information Systems
- B. Have an overall GPA of 3.0
- C. Have a WSU Computer Science GPA of 3.25
- D. Have completed an honors project or thesis

The student must 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. With the advisor, the student will prepare and submit a proposal to the department's Honors Committee. Once the project is approved, the student will complete the project/thesis and present it to the advisor and the second reader. 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 course begins will be dropped from that class.

Pass/No Credit Courses

All required courses and electives courses for a major/minor must be taken for a letter grade, except CS 491.

Rochester Center

All of the Department's majors and the minor are available through the 2+2 Program at the Rochester Center.

Swedish Exchange Program

WSU computer science students have available to them an exchange program with the University College of Boras in Sweden. WSU students spend the fall semester (late August until Christmas) of their junior or senior year in Sweden. Swedish students spend the spring semester at WSU. While in Sweden, WSU students take the following courses (all taught in English):

- I. Sweden - The Land and the 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

CORE (25 S.H.) - Option A & B

Computer Science

- 234 Algorithms and Problem Solving I (4)
- 250 Algorithms and Problem Solving II (4)
- 301 Discrete Structures for Computer Science (3)
- 341 Advanced Data Structures (4)
- 351 Introduction to Assembler & Architecture (3)
- 410 Software Engineering (3)

Mathematics

- 210 Discrete Mathematics and Foundations (4)

OPTION A - COMPUTER SCIENCE

68 S.H. (No Minor Required)

OPTION A REQUIREMENTS (22 S.H.)

Computer Science

- 371 Object Oriented Design and Development (3)
- 405 Operating Systems (3)
- 415 Principles of Programming Languages (3)
- 435 Theory of Computation (3)

Mathematics

- * 160 Calculus I (4)
- * 165 Calculus II (4)

Physics

- 332 Computer Organization (2)

OPTION A ELECTIVES (21 S.H.)

Computer Science

- 385 Applied Database Management Systems (3)
- 411 Software Testing (3)
- 412 Networking and Telecommunications (3)
- 413 Advanced Networking and Telecommunications (3)
- 420 Computer Architecture (3)
- 425 Numerical Analysis (4)
- 430 Computer Graphics (3)
- 440 Theory of Algorithms (3)
- 445 Artificial Intelligence (3)
- 450 Compilers (3)
- 465 Topics: Computing Theory (1-3)
- 466 Topics: General Computing Applications (1-3)
- 476 Distributed System: Concepts and Design (3)
- 485 Database Systems Design (3)
- ** 491 Practicum in Computer Science (6)

Physics

- 333 Microprocessor Electronics (4)
- * Course may be used to satisfy certain General Education requirement
- ** Only 3 credits may be applied to major or minor.

OPTION B -

COMPUTER INFORMATION SYSTEMS:

68 S.H. (No Minor Required)

OPTION B REQUIREMENTS (31 S.H.)

Computer Science

Choose one of the two following courses:

- 240 COBOL Programming and File Processing (4) OR
- 241 RPG Programming and File Processing (4)
- 385 Applied Database Management Systems (3)
- 470 System Design with CASE Tools (3)

Mathematics

- * 140 Applied Calculus (3)

Statistics

- * 210 Statistics (3)

Accounting

- * 211 Financial Accounting Principles (3)
- * 212 Managerial Accounting Principles (3)

Economics

- * 201 Principles of Microeconomics (3)

Management

- 315 Principles of Management (3)

Marketing

- 300 Principles of Marketing (3)

OPTION B ELECTIVES (12 S.H.)

Computer Sciences

- 405 Operating Systems (3)
- 411 Software Testing (3)
- 412 Networking and Telecommunications (3)
- 413 Advanced Networking and Telecommunications (3)
- 415 Principles of Programming Languages (3)
- 435 Theory of Computation (3)
- 440 Theory of Algorithms (3)
- 445 Artificial Intelligence (3)
- 466 Topics: General Computing Applications (1-3)
- 467 Topics: Information Systems Applications (1-3)
- 485 Database Systems Design (3)
- ** 491 Practicum in Computer Science (6)

* Course may be used to satisfy certain General Education requirement

** Only 3 credits may be applied to major or minor.

B.S. MINOR-COMPUTER SCIENCE

24 S.H.

REQUIRED COURSES (18 S.H.)

Computer Science

- * 150 An Overview of Computer Science (3)
- 234 Algorithms and Problem Solving I (4)
- 250 Algorithms and Problem Solving II (4)
- 351 Introduction to Assembler and Architecture (3)

Mathematics

- * 210 Discrete Mathematics and Foundations (4)

ELECTIVES (6 S.H.)

Chosen from computer science courses in Computer Science Major requirements or electives.

* Course may be used to satisfy certain General Education requirement

Computer Science

Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicums. The P/NC option is available to non-majors unless otherwise noted.

115 - Using Personal Computers - 3 S.H.

This course is designed to provide students with a broad overview of uses of personal computers. Included are hands-on experiences; selection of hardware; and use of software packages such as spreadsheets, data files, data base management, statistics, personal management, education, and entertainment and Internet tools.

130 - Introduction to BASIC Programming-3 S.H.

An introductory course in computer programming utilizing the VISUAL BASIC language. Intended for students in the life and social sciences, business, psychology and other disciplines. Covers file processing and other related tools.

150 - An Overview of Computer Science-3 S.H.

Course is designed for Computer Science majors and others who desire a survey of the field of computer science. Students are introduced to problem-solving, representations and abstractions, algorithms, models of computation, limits of computing, programming languages, software engineering, artificial intelligence, operating systems, networks, database management systems, computer ethics, and social implications of computing. Prerequisite: qualifying score on the mathematics placement exam or MATH 050.

155 - Introduction to CS Tools-1 S.H.

Course allows students to develop basic skills in the use of the hardware and software used in the Computer Science curriculum. Pass/no credit only. Offered according to demand.

210 - Computers in Society-3 S.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 credit.

231 - FORTRAN for Engineering and Science-3 S.H.

An introduction to computer programming in Fortran language with a structured programming approach. The course introduces the concepts of algorithms and problem solving, syntax and semantics of the language constructs, subprograms, files and elementary data structure. Programming applications are taken from engineering, mathematical and physical sciences, and other scientific and numerical computations. Include use of software packages as needed in other disciplines. Prerequisite: MATH 120 or equivalent. The course is not applicable to computer science majors or minors.

234 - Algorithms and Problem Solving I-4 S.H.

Quarter Course: 234 and 250.

An introduction to the major concepts of algorithm design and problem solving. Emphasis is on algorithm development, analysis and refinement. Programming strategies and elements of programming also are covered. Various practical applications of problem-solving are demonstrated. Includes formal labs. Prerequisite: qualifying score on the math placement test or MATH 120 or MATH 150.

240 - COBOL Programming and File Processing-4 S.H.

Quarter Course: 233 and 240.

An in-depth study of structured program design utilizing the COBOL language. Topics include structured design, sequential and direct file processing, indexing, sorting, report writer and file organization. Emphasis is on sophistication, economy and efficiency of program design and execution. Prerequisite: CS 234. CS major credit for only one of the two - CS 240 or CS 241 - will be given.

241 - RPG Programming and File Processing-4 S.H.

Quarter Course: 297.

An in-depth study of structured program design utilizing the RPG language. Topics include structured design, sequential and direct file processing, indexing, sorting, report writer and file organization. Emphasis is on sophistication, economy and efficiency of program design and execution. Prerequisite: CS 234. CS major credit for only one of the two - CS 240 or CS 241 - will be given.

250 - Algorithms and Problem Solving II-4 S.H.

Quarter Course: 250 and 340.

A continuation of the problem solving and programming concepts introduced in CS 234. Applies the basic principles of software engineering to more complex problems. Topics include recursive problem solving, searching, sorting, and dynamic structures. Includes formal labs. Prerequisites: CS 234 and MATH 210.

297 - Microcomputer Organization-3 S.H.

Quarter Course: 312.

This course examines 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. May not be used to meet major/minor electives. Prerequisite: CS 234. Offered according to demand.

298 - UNIX & C Programming-3 S.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 are compared to commands of other operating systems. Includes topics on IPC and RPC and sockets. May not be used to meet major/minor electives. Prerequisite: instructor's permission. Offered according to demand.

299 - Special Topics-1-3 S.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: instructor's permission.

301 - Discrete Structures for Computer Science-3 S.H.

Provides students with an introduction to applications of discrete mathematical structures to computer science. Topics included are functions on general sets, integer valued functions, finite state machines, finite state automata, recurrence relations, recursive definitions, grammars, complexity of algorithms, relations. Prerequisite: CS 234 and MATH 210.

341 - Advanced Data Structures-4 S.H.

Quarter Course: 341 and 475.

A detailed study of more advanced data structures and algorithms, including concepts and techniques of design efficiency and complexity of algorithms and their lower bounds. Topics include search trees, hash functions, string searching, disjoint sets, internal and external sorting, graphs and graph algorithms, and different algorithm design technique. Prerequisite: CS 250 and CS 301.

351 - Introduction to Assembler and Architecture-3 S.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. Include and introduction to basic logic circuits and their use in computer architecture. Prerequisite: CS 250.

371- Object Oriented Design and Development-3 S.H.

This course will cover fundamental topics in object oriented analysis, design, and development. An object oriented design methodology and tool will be introduced and used. The course will use an object oriented development environment/language. Advanced features of object oriented languages will be covered. Students will be required to investigate issues in object oriented systems and their implementation. Prerequisite: CS 341

385 - Applied Database Management Systems-3 S.H.

A study of basic Database Management Systems (DBMS) concepts. Topics include DBMS Models - Relational and object-oriented; study of query languages; study of exiting DBMS; and data integrity, recovery, and concurrency control. Prerequisite: CS 250.

399 - Special Topics-1-3 S.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: instructor's permission.

405 - Operating Systems-3 S.H.

Study of the principles and design techniques of operating systems. Topics include concurrent processes, scheduling, deadlocks, memory management, file and directory organizations and protection/security. Prerequisite: CS 341 and CS 351.

410 - Software Engineering-3 S.H.

Quarter Course: 375.

The course deals with the current trends of software engineering principles and techniques for methodical construction of large, com-

plex software-intensive systems. It follows the software life cycle from the requirement, specification, design, and testing phases. Topics include software process, project management, quality assurance, configuration management, formal specification techniques, design methodologies, testing and validation techniques, and object-oriented methodologies. Students are involved in a team project utilizing software engineering principles. Prerequisite: CS 250.

411 - Software Testing - 3 S.H.

An introduction to various software testing techniques and analysis which has a sound theoretical basis. Class discussion will include software testing fundamentals and techniques for software test case design. Software testing methods such as functional testing, structural testing, mutation testing, and integration and system testing, including object-oriented software testing will be presented. Prerequisite: CS 410.

412 - Networking and Telecommunications-3 S.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 are studied in the context of the International Standards Organization/OSI Model. Emphasis is placed on the physical, data link, network, transport and session layers. Prerequisite: CS 250 and one 300-level CS course.

413 - Advanced Networking and Telecommunications-3 S.H.

Advanced topics in computer networking and telecommunications are studied. Emphasis is on the Transport and Application levels of the OSI Model. Course emphasizes a networking lab. Students gain experience with a protocol stack such as TCP/IP or OSI. Prerequisite: CS 412.

415 - Principles of Programming Languages-3 S.H.

A study of the principles of the design and implementation of higher-level programming languages. Topics include syntax, semantics, implementation issues, and specific features and strengths of languages. Alternative paradigms for describing computation are also covered. Students are introduced to the theoretical foundations of these paradigms and are given an opportunity to write programs in each of the paradigms. Prerequisite: CS 341.

420 - Computer Architecture-3 S.H.

Models of computing systems are studied. These include the Von Neumann model, multiprocessors, vector processors and others. Additionally, the components of these models are examined. Topics include the memory hierarchy, input/output systems and pipelining. Prerequisite: CS 351.

425 - Numerical Analysis-4 S.H.

Numerical solution of equations, numerical interpolation, differentiation and integration, numerical linear algebra, and numerical solution of differential equations with analysis and use of algorithms and related software. Prerequisite: CS 231 or 234 and MATH 260.

430 - Computer Graphics-3 S.H.

A study of computer graphics techniques. Includes display devices, transformation, graphics package design and picture structure. Prerequisite: CS 341.

435 - Theory of Computation-3 S.H.

This course explores the theoretical foundations of computer science. Topics include finite state automata and regular languages, context-free grammars, pushdown automata and context-free languages. Turing machines and recursively enumerable sets, computability and the halting problems, Chomsky hierarchy and undecidable problems. Prerequisite: CS 250 and CS 301.

440 - Theory of Algorithms - 3 S.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.

445 - Artificial Intelligence-3 S.H.

A survey of the tools and theoretical constructs of artificial intelligence as implemented on computers. Emphasis is 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, expert systems, and neural networks. Prerequisite: CS 415.

450 - Compilers-3 S.H.

The course studies the principles, techniques and tools for compiler

design and construction. Topics include lexical analysis, syntax analysis, parsing techniques, error recovery, semantic analysis, intermediate language, code generation, and optimization techniques. Students design and implement the phases of a compiler. Prerequisite: CS 415 or CS 435.

465 - Topics: Computing Theory-1-3 S.H.

Topics are selected from automata theory, the Turing Machine, combinatorics, etc. An in-depth view of a specific concept of computing is covered. Prerequisite: Junior or senior standing and instructor's permission. May be repeated for credit. Offered according to demand.

466 - Topics: General Computing Applications-1-3 S.H.

Topics are selected from general computing application areas. An in-depth view of a specific problem or technique is given. Topics may include statistical problems, the Simplex model. O/I knapsack, Divide and Conquer, etc. Prerequisite: Junior or Senior standing and instructor's permission. May be repeated for credit. Offered according to demand.

467 - Topics: Information System Applications-1-3 S.H.

Topics are selected from specific information systems or management information systems or management information systems applications and are oriented toward the user. Topics include linear programming, statistical packages, inventory systems, decision support, the transportation problem, project scheduling, queuing models, forecasting, and discrete simulation. Prerequisite: Junior or Senior standing and instructor's permission. May be repeated for credit. Offered according to demand.

470 - System Design with CASE/Tools-3 S.H.

System design with CASE tools: Analysis of Computer Information Systems, system life cycle, translation of a logical design with E-R diagrams, data flow diagrams, data dictionary and algorithm descriptions into a physical system design. Students work in small groups using CASE tools to design and generate the code for a system project. Prerequisite: CS 240 or CS 241 and CS 410.

476 - Distributed Systems: Concepts and Design-3 S.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 405.

481 - Computer Applications-1-3 S.H.

This is intended to be an off-campus course. The computer applications to be covered are 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. Offered according to demand.

485 - Database Systems Design-3 S.H.

The design and development of database management systems. Topics include relational object oriented 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-1-3 S.H.

An opportunity to continue the study of selected topics. Prerequisite: instructor's permission. Offered according to demand.

491 - Practicum in Computer Science-6 S.H.

Provides the student with practical experience and training. Students work a minimum of 200 hours on the job in a computer installation under the supervision of a computer science professional. Students planning to take this course must apply to the practicum coordinator at least one semester before they intend to enroll. This course is open only to junior or senior declared CS or CIS majors who have completed the core and option requirements for their major. Permission of coordinator is required. Contact the Computer Science Practicum Coordinator for more information on the course requirements. Pass/No Credit only. Only 3 S.H. apply to CS or CIS majors.

Computer Science Education Course Descriptions

321 - Computers in the Mathematics Curriculum-3 S.H.

This course is designed to provide future mathematics teachers 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 165 and

Junior or Senior standing. (A computer programming course is advised). Offered according to demand.

452 - Computer Applications in Elementary Education-3 S.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 is the acquisition of a positive attitude in the use of the microcomputer as a tool. To accomplish this goal, the student has direct experiences with computer-assisted-instruction (CAI), computer managed instruction (CMI), information retrieval, programming languages, software evaluations and elementary computer literacy curriculums. Prerequisite: EDUC 300, EDUC 301 and EDUC 302. Offered according to demand.

480 - Computer Workshop-3 S.H.

Emphasis is on using microcomputers in education. Topics are 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: instructor's permission. Can be repeated for credit. Offered according to demand.

481 - Computer Applications-3 S.H.

This is intended to be an off-campus course. The computer applications to be covered are 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.

489 - Special Topics-3 S.H.

Experiences in computer science and computer science education for teachers of grades K-12. Prerequisite: instructor's permission. Offered according to demand.

COUNSELOR EDUCATION

Gildemeister Hall, Room 132, (507) 457-5335
Borror, Fawcett, T. Hatfield, Maher, Ruiz, Ward

Faculty

Gaylia Borror, Associate Professor; B.S., Davis & Elkins College; M.S., West Virginia University; Ph.D., University of Iowa; 1989 -

Mary Fawcett, Assistant Professor; B.A., University of North Carolina; M.A., Appalachian State University; Ph.D., University of South Carolina; 1999 -

Tim Hatfield, Professor; B.A., Harvard University; M.Ed., Harvard Graduate School of Education; Ph.D. University of Minnesota; 1980 -

Marie Maher, Professor; B.A., University of Wisconsin-La Crosse; M.A., University of Wisconsin-Madison; M.S., Winona State University, Ph.D., University of Iowa; 1988 -

Nick Ruiz, Associate Professor; B.A., Ph.D., University of Minnesota; 1989 -

Colin Ward, Assistant Professor; B.A., University of Northern Colorado; M.S., Winona State University; Ph.D., Oregon State University; 1998 -

The Department's major purpose is to provide quality education to persons seeking advanced study in counseling and related professions, plus selected undergraduate and community service courses.

The Department offers elective courses for undergraduates, but departmental concentrations lead only to the Master of Science degree. (See the Graduate Catalog for program descriptions.)

CHEMICAL DEPENDENCY COURSE OFFERINGS

Students interested in chemical dependency issues and practice may avail themselves of the several courses noted below and described in more detail in the Course Descriptions. Courses with an asterisk (*) address subject matter required for certification as chemical dependency practitioners in Minnesota and Wisconsin, and courses without the asterisk are additional related courses.

220 Emotions and Behavior

432 Stress Management

491 Crisis Intervention Counseling

* 492 Chemical Dependency: Assessment

* 493 Chemical Dependency: Special Populations

* 496 Chemical Dependency: Causes and Symptoms

* 497 Chemical Dependency Counseling

NOTE: These courses alone do not automatically lead to certification as a chemical dependency practitioner. For more information, contact the Counselor Education Department.

Counselor Education

Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicums. The P/NC option is available to non-majors unless otherwise noted.

200 - Career/Life Decision Making-2 S.H.

This course is designed to give students an opportunity to explore the skills, processes and information necessary to become actively and responsibly involved in their own college program planning as well as their longer-term career and life planning. Fulfills a portion of the Allied Studies General Education requirement. P/NC only.

220 - Emotions and Behavior-3 S.H.

A study of the emotions and their effect on the behavior of the individual. Emphasis is placed on the management of feeling through constructive expression. Fulfills Allied Studies-General Education requirement.

432 - Stress Management-2 S.H.

Quarter Course: 420.

This course provides an introduction to important concepts, issues, skills and interventions related to the identification and management of personal stress.

436 - Sexual Issues for Helping Professionals -2 S.H.

This course is designed to prepare counselors and other helping professionals to deal with human sexuality as it relates to a broad spectrum of human relationships common in helping situations. The course facilitates increased awareness of one's own attitudes, feelings and judgments surrounding all areas of sexuality as well as introduces a basic body of knowledge and skills for treating sexual concerns of the client.

491 - Crisis Intervention Counseling-2 S.H.

All therapists or helpers at one time or another are called upon to deal with crisis. The purpose of this course is to provide students and helping professionals with a foundation for understanding crisis and with effective models for working with crisis.

492 - Chemical Dependency: Assessment-.5-2 S.H.

Quarter Course: 432G.

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 can occur when they are likely to be most effective.

493 - Chemical Dependency: Special Populations-.5-2 S.H.

Quarter Course: 434G.

This course addresses special populations within chemical depen-

dency counseling (e.g., women, adolescents, the aging). Focus is on the unique counseling issues for special populations.

494 - Multicultural Issues for Helping Professionals-.5-2 S.H.
Quarter Course: 435G.

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.

495 - Workshop: Counseling Specialties-.5-2 S.H.

The topics of these workshops vary. Announcements of the topics and any special enrollment issues are made in advance of the workshop offering.

496 - Chemical Dependency: Causes and Symptoms-2 S.H.
Quarter Course: 431G.

This course focuses on research and related information regarding the biological, environmental, social and psychological causes and symptoms of chemical dependency.

Grade only.

497 - Chemical Dependency Counseling-2 S.H.

This course is designed for people who want to develop skills for counseling people with alcohol- and drug-related concerns. Focus is on learning the intervening process to be used with the drug-dependent person. Consideration also is given to working with the affected family members. Grade only.

498 - Death, Dying and Surviving-2 S.H.

This course is designed to help persons broaden their perspectives on death and loss as it affects all people. The focus is both personal in surveying one's own attitudes about death and professional in helping others through the grieving process.

CYTOTECHNOLOGY

Pasteur 215F, (507) 457-5271

Web Address: http://bio.winona.msus.edu/biohp/acad_deg.htm

Thompson (Director of the Cytotechnology Program). Adjunct faculty from affiliated medical centers: Mayo Clinic, Rochester, Minn; Marshfield Clinic, Marshfield, Wis.

Adjunct Faculty Cytotechnology Program

Mayo School of Health-Related Science, Rochester, MN

Jill Caudill, M.Ed., CT, (ASCP), Education Coordinator

John Goellner, M.S., Medical Director

Marshfield Medical Center, Marshfield, WI

Virginia R. Narlock, Ph.D., C.L.S. (ASCP) Program Director, Laboratory

George Rupp, M.D., Medical Director, Laboratory Education Programs

Donald Schnitzler, Education Coordinator, Cytotechnology

The Cytotechnology Program at WSU is administered by the Biology Department and the College of Science and Engineering. It is a four-year course of study leading to the Bachelor of Science degree in Cytotechnology. The first three years are spent at WSU, where the student completes courses in the basic sciences of biology and chemistry as well as the General Education Requirements of the University. The fourth year is spent in a clinical setting at one of the Cytotechnology programs affiliated with WSU, where the student gets intensive training in the sub-disciplines and techniques of Cytotechnology. Completion of three years (96 semester hours) at the University with a minimum grade point average of 3.00 are required for application to the year of clinical training. During this clinical year, each student registers for the appropriate number of credits at the University and his or her progress is evaluated each semester. Upon successful completion of the clinical program, the student receives a certificate in cytology and then is eligible to write the National Registry Examination given by the American Society of Clinical Pathologists (ASCP). If all WSU requirements have been completed, the student also is granted the degree of Bachelor of Science in Cytotechnology.

Students should note that acceptance into the fourth year of clinical training is not automatic upon completion of the third year at WSU. The number of spaces each year in clinical training programs is limited, and there is significant competition for these spaces. Students are accepted by the clinical institutions based upon their academic achievement and their potential for a successful career as a cytotechnologist. The latter is determined through letters of recommendation from University faculty and a personal interview with faculty of the clinical institution.

First-year students entering this program should consult with Dr. Thompson soon after their arrival on campus, and all cytotechnology students must meet with him for academic review and advising prior to registration for each semester. Dr. Thompson must approve all student schedules each semester.

B.S. MAJOR - CYTOTECHNOLOGY

81 S.H. (No Minor Required)

REQUIRED MAJOR AREA COURSES (32 S.H.)

- 241 Principles of Biology I (4)
- 242 Principles of Biology II (4)
- 308 Cell Biology (3)
- 310 Genetics (3)
- 307 Cell/Genetics Lab (1)
- 201 Human Anatomy (4)
- 323 General Physiology (5)
- 409 General Microbiology (4)
- 470 Histology (4)

(NOTE: BIOL 241 & 242 should be taken prior to BIOL 201, 307, 308, & 310. BIOL 308 & 310 should be taken prior to or concurrently with BIOL 307. BIOL 323 should be taken after BIOL 201, BIOL 409 & 470 should be taken after BIOL 308, 310 & 307.)

MAJOR ELECTIVES (6 S.H.)

At least 6 s.h. chosen from the following courses:

- BIOL 309 Developmental Biology (3)
- BIOL 445 Immunology (3)
- BIOL 460 Parasitology (3)
- CHEM 340 Organic Survey (4)

ADDITIONAL REQUIREMENTS (11 S.H.)

Chemistry (7 s.h.)

*208, * 209 General/Organic/Biochemistry (7)

(NOTE: CHEM * 212 and CHEM * 213 may be substituted for CHEM * 208 and CHEM * 209)

Mathematics (4 s.h.)

* 120 Precalculus (4)

(NOTE: MATH 150 and MATH 155 may be substituted for MATH 120)

CLINICAL EDUCATION (32 S.H.)

BIOL 481 - Cytotechnology I (12)

BIOL 482 - Cytotechnology II (12)

BIOL 483 - Cytotechnology III (4)

BIOL 484 - Cytotechnology IV (4)

NOTE: The clinical training can be completed at any approved clinical training site.

ECONOMICS AND FINANCE

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

Manrique (Chairperson)

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

Finance: Kesler, Murray, Wrolstad.

Faculty

Alejandro Gallegos, Professor, Economics; B.A., Instituto Tecnológico y de Estudios Superiores de Monterrey; M.A., Ph.D., University of Wisconsin-Milwaukee; 1988 -

Michael Gieske, Professor, Economics; B.S., Iowa State University of Science and Technology; 1972 -

Matthew Hyle, Professor, Economics; B.A., Indiana University; Ph.D., University of Maryland; 1988 -

Daniel E. Kauffman, Professor, Economics; B.A., St. Cloud State University; M.A., Ph.D., University of Nebraska; 1983 -

David W. Kesler, Professor, Finance; B.S., Pacific Lutheran University; M.A., M.B.A., University of Kansas; Ph.D., University of Wisconsin-Milwaukee; 1984 -

Gabriel Manrique, Professor, Economics; B.A., Ateneo De Manila University; M.A., Ohio University; Ph.D., University of Notre Dame; 1989 -

Michael Murray, Professor, Economics/Finance; B.A., University of South Florida; M.A., Ph.D., University of Notre Dame; 1986 -

Mary Ann Pevas, Associate Professor, Economics; B.A., Dominican College; M.A., Manhattan College; Ph.D., University of Notre Dame; 1990 -

Mary E. Rieder, Professor, Economics; B.A., Aquinas College; Ph.D., Iowa State University of Science and Technology; 1971 -

Donald M. Salyards, Professor, Economics; B.A., Graceland College; M.A., Ph.D., Kansas State University; 1975 -

Mark Wrolstad, Professor, Finance; B.A., Luther College; M.B.A., University of Florida; Ph.D., University of Colorado; 1989 -

The purpose of the 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 courses not required for a major, minor, option or any of the concentrations may be taken by undergraduates on a pass/no credit basis.

Graduation Requirements:

FOR ECONOMICS MAJORS

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 18 semester hours of credits in economics courses offered by the Economics Program at WSU including ECON 499.

FOR FINANCE MAJORS

1. Completion of all coursework required for the major
2. A grade of "C" or better in all courses counted toward the major
3. Sixty- four non-business credits are required for Finance major. The mathematics, statistics (six semester credits maximum) and economics (nine semester credits maximum) required for the Bachelor's Degree can be counted toward the 64 non-business credits.
4. A minimum of 50% of the business requirements for the Finance major must be completed at WSU.

B.A. MAJOR - ECONOMICS

45-46 S.H. (Minor Required)

REQUIRED COURSES (27-28 S.H.)

Economics (18 s.h.)

- 201 Principles of Microeconomics (3)
- 202 Principles of Macroeconomics (3)
- 302 Intermediate Microeconomics (3)
- 303 Intermediate Macroeconomics (3)
- 304 Money and Banking (3)
- 499 Seminar in Economics (3)

Statistics/Quantitative Tools (9-10 s.h.)

Choose one of the following two courses:

- MATH *140 Applied Calculus (3) OR
- MATH *160 Calculus I (4)

Choose one of the following two courses:

- DIS 220 Business Statistics (3) OR
- STAT 210 Statistics (3)
- FIN 335 Forecasting Methods (3)

ELECTIVES (18 S.H.)

Additional credits at the 300 or 400 level in economics.

- * Course may be used to satisfy certain General Education requirements

B.A. MINOR - ECONOMICS

24 S.H.

REQUIRED COURSES (15 S.H.)

- * 201 Principles of Microeconomics (3)
- * 202 Principles of Macroeconomics (3)
- 302 Intermediate Microeconomics (3)
- 303 Intermediate Macroeconomics (3)
- 304 Money and Banking (3)

ELECTIVES (9 S.H.)

Additional credits at the 300 or 400 level in economics.

- * Course may be used to satisfy certain General Education requirements

B.S. MAJOR - FINANCE

66-67 S.H. (No Minor Required)

BUSINESS CORE (36-37 S.H.)

Mathematics (3-4 s.h.)

- * MATH 140 Applied Calculus (3) OR
- * MATH160 Calculus (3)

Accounting (6 s.h.)

- * ACCT 211 Financial Accounting Principles (3)
- * ACCT 212 Managerial Accounting Principles (3)

Business Administration (15 s.h.)

- DIS 220 Business Statistics (3)
- BUSA 291 Legal Environment (3)
- POM 334 Production and Operations Management (3)
- DIS 342 Advanced Business Computer Applications (3)
- MGMT 325 Organizational Dynamics (3)

Economics and Finance (9 s.h.)

- * ECON 201 Principles of Microeconomics (3)
- * ECON 202 Principles of Macroeconomics (3)
- FIN 360 Corporate Finance (3)

Marketing (3 s.h.)

- MKTG 300 Principles of Marketing (3)

FINANCE MAJOR REQUIREMENTS (30 S.H.)

FINANCE CORE (15 S.H.)

- ECON 303 Intermediate Macroeconomics (3)
- FIN 335 Forecasting Methods (3)
- FIN 377 Investments (3)
- FIN 463 Cases in Financial Management (3)
- FIN 421 Institutional Investment and Financial Markets (3)

OPTION A (15 S.H.)

For students planning to seek a career immediately after graduation. Five courses from the following list - at least two must be finance courses and at least one must be an economics course.

- | | |
|----------|-----------------------------------|
| ACCT 311 | Intermediate Accounting I |
| ACCT 421 | Introduction to Taxation |
| DIS 320 | Intermediate Business Statistics |
| DIS 340 | Managerial Science |
| ECON 304 | Money and Banking |
| ECON 320 | Business and Government Relations |
| ECON 400 | Public Finance: Taxation |
| ECON 404 | International Economics |
| ECON 425 | Managerial Economics |
| ECON 440 | Industrial Organization |
| ECON 444 | Public Finance: Expenditures |
| ECON 405 | Monetary Theory and Policy |
| FIN 404 | Commercial Bank Management |
| FIN 422 | Portfolio Management |
| FIN 423 | Derivative Securities |
| FIN 440 | International Finance |
| FIN 471 | Real Estate Finance |
| FIN 473 | Real Estate Investment |
| MGMT 495 | Strategic Management |

OPTION B (15 S.H.)

For students planning to do advanced work in finance.

REQUIRED (9 S.H.)

- FIN 422 Portfolio Management
- FIN 423 Derivative Securities
- STAT 310 Intermediate Statistics

OPTIONAL COURSES (6 S.H.)

Select two courses from the following list.

- DIS 340 Management Science
- ECON 405 Monetary Theory and Policy
- ECON 425 Managerial Economics
- FIN 440 International Finance
- MATH 165 Calculus II (4)
- MATH 210 Discrete Mathematics (4)
- MATH 430 Operations Research: Linear Programming (4)
- MGMT 495 Strategic Management
- STAT 360 Regression Analysis (3)

- * Course may be used to satisfy certain General Education requirements

Economics Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicums. The P/NC option is available to non-majors unless otherwise noted.

ECONOMICS

201 - Principles of Microeconomics-3 S.H.

The private enterprise system, demand-and-supply and market interaction; business costs and prices, forms of competition, resource markets; the mixed economy. General Education math requirement recommended as a prerequisite.

202 - Principles of Macroeconomics-3 S.H.

National income analysis; aggregate demand-and-supply; money and banking; business cycles, monetary and fiscal policy. General Education math requirement recommended as a prerequisite.

203 - Principles of Economics III-3 S.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 and ECON 202.

302 - Intermediate Microeconomics-3 S.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-3 S.H.

National income accounting and measurement, theory of the determination of national economic activity; economic growth; consumption; investment; government spending and net exports; design and effects of fiscal and monetary policies; inflation. Prerequisite: ECON 202.

304 - Money and Banking-3 S.H.

The nature and functions of money. Current definitions of the money supply and the process of money creation. The financial system and the central bank. The demand for money, interest rate determination, introduction to monetary policy. Prerequisites: DIS 220 or STAT 210 and ECON 201 and ECON 202.

315 - Environmental and Natural Resource Economics-3 S.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 in the control of pollution. Current issues in those areas are featured. Prerequisite: ECON 201 or instructor's permission.

320 - Business-Government Relations-3 S.H.

Government economic regulation of business including anti-trust legislation, natural monopoly regulation, and selected social regulation topics such as consumer product safety. Prerequisite: ECON 201.

398 - Internship-1-6 S.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-3 S.H.

Prerequisite: Junior status in Economics Major, 2.5 GPA and instructor's permission. Grade only.

400 - Public Finance: Taxation-3 S.H.

Structure and economic effects of U.S. tax revenue sources such as the personal income tax and corporate income tax; principles of economic incidence and optimal taxation; current issues in taxation. Prerequisite: ECON 201 or instructor's permission.

404 - International Economics-3 S.H.

Comparative advantage and modern trade theories. The impact of international trade on income distribution and growth, barriers to trade, economic integration, contemporary international marketing agreements, exchange rate determination, and balance of payments adjustments. Prerequisites: ECON 201 and ECON 202.

Recommended prerequisites: DIS 220 or STAT 210.

405 - Monetary Theory and Policy-3 S.H.

The theory and practice of monetary policy in a modern open economy. This includes the microeconomic foundations of the demand for assets, including money; interrelationships between nonmonetary assets, money and rates of return; the ability of central banks to manipulate the money supply and influence economic activity; and the roles of public and private debt in monetary policy. Prerequisite: ECON 303 or ECON 304 or instructor's permission.

415 - International Economic Development-3 S.H.

A study of the past and current paths to economic growth and development of countries. The course will analyze the economic policies and performances of countries by using economic theory and economic and social data. Emphasis is on developing countries of the Third World, the newly industrialized countries and former socialist countries undergoing transition to a capitalist system. Prerequisites: ECON 201 and ECON 202.

420 - Labor Economics-3 S.H.

Economic theory relating to labor markets. Wage theory, bargaining models and contemporary labor issues considered. Prerequisites: ECON 201 and ECON 202 or instructor's permission.

425 - Managerial Economics-3 S.H.

Application of economic theory and related decision-making methods to problems faced by business firms. Prerequisites: ECON 201 and ECON 202 or instructor's permission.

440 - Industrial Organization-3 S.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-3 S.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 and ECON 202 or instructor's permission.

450 - Health Economics-3 S.H.

In-depth analysis of the market for health care services including the demand of 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 is evaluated. Prerequisites: ECON 201 and ECON 202.

480 - Independent Studies in Economics-1-3 S.H.

Offers the advanced student an opportunity to do additional reading and/or research in areas of special interest. Prerequisite: instructor's permission. Total credits may not exceed 6.

499 - Seminar in Economics-3 S.H.

Advanced analysis of economic methods and problems. Specific focus of course is arranged by the instructor. Prerequisites: ECON 302 and ECON 303. Student must be either a major or minor in Economics.

Finance

201 - Introduction to Finance-3 S.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 rate determination, a primer on investments and an introductory discussion of international finance. Not open to those having 15 or more credits in business. Grade only.

335 - Forecasting Methods-3 S.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. Prerequisites: MATH 140 or its equivalent and DIS 220 or its equivalent or instructor's permission. Grade only.

340 - Computer Applications in Finance-1 S.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: DIS 220 or its equivalent. Grade only.

360 - Corporate Finance-3 S.H.

The theory and practice of corporate finance, using the approaches and quantitative methods required of today's financial managers and decision-makers. Special emphasis on a theory of value, the determinants of risk, return and the opportunity cost of capital, applied to both real and financial assets, the study of leverage issues, the exploitation of market inefficiencies, and the development of various tools and economic reasoning which provide the basis for a wide range of corporate financial decisions. Prerequisites: ECON 201, ECON 202, ACCT 211, ACCT 212 and DIS 220 or its equivalent; and the math requirement of student's major. Grade only.

377 - Investments-3 S.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 and mathematics requirement of student's major. Grade only.

398 - Internship-1-6 S.H.

Credits are not counted in Finance Major, but as general elective credit. Prerequisite: Concurrent enrollment in FIN 399. P/NC only.

399 - Internship Problem-3 S.H.

Prerequisite: completion of Business Core, 2.5 GPA and instructor's permission. Grade only.

404 - Commercial Bank Management-3 S.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.

421 - Institutional Investment and Financial Markets-3 S.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 and ECON 303. Grade only.

422 - Portfolio Theory and Security Valuation-3 S.H.

An in-depth study of modern portfolio theory and techniques for the valuation of securities including equity, debt and derivative securities. Special emphasis is placed on the contingent claims model for security valuation. Prerequisites: FIN 377 and computer requirement of student's major. Grade only.

423 - Derivative Securities - 3 S.H.

The application and valuation of financial securities whose value is contingent on the value of other securities. The primary concentration is on option and futures contracts; however, application of the option valuation model to other areas of finance will also be introduced. Prerequisites: MATH 140 and FIN 360. Grade only.

440 - International Finance-3 S.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-3 S.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: FIN 360 and computer requirement of student's major. Grade only.

471 - Real Estate Finance-3 S.H.

The structure and operation of the primary and secondary mortgage markets, instruments, techniques and strategies in financing real property investments including developing projects. Prerequisite: FIN 360. Grade only.

473 - Real Estate Investment-3 S.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-1-3 S.H.

Offers advanced students an opportunity to do additional reading and/or research in areas of special interest. Prerequisite: instructor's permission. Total credits may not exceed 6. Grade only.

EDUCATION LEADERSHIP

(see the GRADUATE CATALOG)

EDUCATION

Gildemeister Hall, Room 152, (507) 457-5350

Leicester (Chairperson), Bowman, Clay, Gustafson, Helble, Joyce, Matthews, Reap, J. Reineke, S. Rislove, J. Sherman, T. Sherman, Tolmie, Williams, Winters.

Faculty

Richard Bowman, Professor; B.S. Ed., M.S. Ed., Ohio University, Athens; Ph.D., University of Toledo (OH); 1995 -

Robert Clay, Associate Professor; B.S., Bemidji State University; M.A., University of Northern Colorado; Ph.D., Colorado State University; 1990 -

John Gustafson, Assistant Professor; B.A. Bemidji State University; M.A., California State University-Los Angeles; Ed.D. University of South Dakota 1998 -

Donna Helble, Professor; B.A., Simpson College, Iowa; M.S., Winona State University; Ed.D., University of Northern Colorado; 1984 -

Mary Joyce, Assistant Professor; B.A., College of St. Catherine; M.S., Winona State University; 1980 -

Jean Leicester, Associate Professor; B.A., University of California - Berkeley; M.A., San Francisco State University; Ph.D., University of Colorado, Boulder; 1991 -

Celeste Matthews, Assistant Professor; B.A., University of Arizona; M.Ed., University of Maryland; Ph.D., Penn State University; 1997 -

Melanie Reap, Assistant Professor, B.S., Texas A & M University; B.S. Texas A & M University; M.S., Texas A & M University; Ph.D., University of Oklahoma; 1999 -

James Reineke, Assistant Professor; B.A., University of Minnesota-Twin Cities; B.S., University of Minnesota-Twin Cities; Ph.D., Michigan State University; 1996 -

Susan Rislove, Assistant Professor; B.S., Moorhead State University; M.S., Winona State University; November, 1981 -

Janice Sherman, Professor; B.S., State University of New York-Buffalo; M.S., Colorado State University; Ed. D., University of North Dakota; 1989 -

Thomas Sherman, Professor; A.A. Paul Smith's College; B.S., State University of New York-Buffalo; M.Ed., Colorado State University; Ed.D., University of Colorado; 1989 -

Patricia Tolmie, Professor; B.S., M.S., Winona State University; Ph.D., University of Wisconsin-Madison; 1980 -

Maudie Williams, Professor; B.S., Fort Valley State College; M.S., Tuskegee Institute; Ed.D., University of Florida; 1989 -

Rod Winters, Assistant Professor, B.A., Central College; M.A., University of Northern Colorado; Assistant Professor, Ed.D., University of Northern Iowa; 1998 -

The Department aims to integrate into pre-service 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 schooling in a democratic society; practice toward teaching effectively and the professionalism to work with others in promoting continual improvement of schools.

Teacher Education Programs

Note: These programs may change due to changes in Board of Teaching licensure requirements. Check with your major department for current program/licensure requirements.

EARLY CHILDHOOD EDUCATION (BIRTH TO GRADE 3) (124 S.H.)

GENERAL EDUCATION (34 S.H.)

- I. BASIC SKILLS (12 S.H.)
ENG 111 Written Composition (4)
CMST 191 Oral Communication (3)
MATH 100 or higher Mathematics (3)
Physical Education elective (1)
Physical Education elective (1)

GENERAL EDUCATION BREADTH (16 S.H.)

- II. HUMANITIES History (3)
III. NATURAL SCIENCE (lab) Elective (4)
IV. SOCIAL SCIENCE Sociology 150 (3)
V. DIFFERENT CULTURE Elective (3)
VI. ALLIED STUDIES HHP 204 (3)

GENERAL EDUCATION DEPTH (from list above) (6 S.H.)

- A. Elective (3)
B. Elective (3)

SPECIALTY PROGRAM REQUIREMENTS (22 S.H.)

- EDUC 321 Literature (3)
SOC 212 Social Science (3)
MTED *201 Mathematics (4)
SPED 200 Exceptionality (3)
Geography Elective (3)
Science Elective (3)
World Language/Fine Arts elective (3)
Technology – Competency Exam

PROFESSIONAL SEQUENCE AND TEACHING METHODS (68 S.H.)

- EDUC 303 Human Development and Learning: Pre-primary (4)
EDUC 308 Human Relations and Student Diversity (3)
EDUC 410 Foundations of Early Childhood, Trends and Issues (3)
EDUC 413 Infant, Toddler Development and Curriculum (3)
EDUC 414 The Developing Child in the Social World (3)
EDUC 416 Early Childhood Education (4)
EDUC 424 Org. & Administration of EC Education Programs (4)
EDUC 459 The Professional Educator (3)
EDUC 328 Teaching Reading and Language Arts I (3)
EDUC 334 Teaching Mathematics in Elementary School (3)
EDUC 335 Teaching of Science & Environmental Studies in Elementary School (3)
EDUC 467 Student Teaching (16)
ART 300 Elementary Art Education (3)
HHP 320** Health Education in Elementary Schools (3) (HHP204 pre-requisite)
MTED125** Mathematics for Elementary Teachers (4)
MUS 320 Music for Elementary Teachers (3)
PER 200** Teaching Elementary Physical Education (3)

* Suggested course

** Can be taken prior to admission to the program

*** Students can test out of this course

K-6 WITH PRE-PRIMARY (120 S.H.)

GENERAL EDUCATION (34 S.H.)

- I. BASIC SKILLS (12 S.H.)
ENG 111 Written Composition (4)
CMST 191 Oral Communication (3)
MATH 100 or higher Mathematics (3)
Physical Education Elective (1)
Physical Education Elective (1)

GENERAL EDUCATION BREADTH (16 S.H.)

- II. HUMANITIES History (3)
III. NATURAL SCIENCE (lab) Elective (4)
IV. SOCIAL SCIENCE Geography (3)
V. DIFFERENT CULTURE Elective (3)
VI. ALLIED STUDIES HHP 204 (3)

GENERAL EDUCATION DEPTH (from list above) (6 S.H.)

- A. Elective (3)
B. Elective (3)

SPECIALTY PROGRAM REQUIREMENTS (19 S.H.)

- EDUC 321* Literature (3)
HIST 150* or 151* History (3)
MTED 201* Mathematics (4)
SPED 200 Exceptionality (3)
Science Elective (3)
World Language/Fine Arts Elective (3)
Technology – Competency Exam

PROFESSIONAL SEQUENCE AND TEACHING METHODS (67 S.H.)

- EDUC 303 Human Development and Learning: Pre-primary (4)
EDUC 308 Human Relations and Student Diversity (3)
EDUC 310 Instructional Planning and Assessment: Preprimary (3)
EDUC 410 Foundations of Early Childhood, Trends and Issues (3)
EDUC 416 Early Childhood Education (4)
EDUC 459 The Professional Educator (3)
EDUC 328 Teaching Reading and Language Arts I (3)
EDUC 329 Teaching Reading and Language Arts II (3)
EDUC 333 Teaching Social Studies in Elementary School (3)
EDUC 334 Teaching Mathematics in Elementary School (3)
EDUC 335 Teaching Science & Environmental Studies in Elementary School (3)
EDUC 460 Student Teaching (16)
ART 300 Elementary Art Education (3)
HHP 320** Health Education in Elementary Schools (3) (HHP 204 pre-requisite)
MTED125** Mathematics for Elementary Teachers (4)
MUS 320 Music for Elementary Teachers (3)
PER 200** Teaching Elementary Physical Education (3)

* Suggested course

** Can be taken prior to admission to program

*** Students can test out of this course

K-6 WITH MIDDLE SCHOOL COMMUNICATION ARTS & LITERATURE (119 S.H.)

GENERAL EDUCATION (34 S.H.)

- I. BASIC SKILLS (12 S.H.)
ENG 111 Written Composition (4)
CMST 191 Oral Communication (3)
MATH 100 or higher Mathematics (3)
Physical Education Elective (1)
Physical Education Elective (1)

GENERAL EDUCATION BREADTH (16 S.H.)

- II. HUMANITIES English 120 (3)
III. NATURAL SCIENCE (lab) elective (4)
IV. SOCIAL SCIENCE Geography (3)
V. DIFFERENT CULTURE elective (3)
VI. ALLIED STUDIES (filled by HHP 204) (3)

GENERAL EDUCATION DEPTH (from list above) (6 S.H.)

- A. CMST 261 (3)
B. THAD 141 (3)

SPECIALTY PROGRAM REQUIREMENTS (19 S.H.)

- EDUC 321* or ENG 402 Literature (3)
- HIST 150* or 151* History (3)
- MTED 201* Mathematics (4)
- SPED 200 Exceptionality (3)

Science Elective (3)

World Language/Fine Arts elective (3)

Technology – Competency Exam

PROFESSIONAL SEQUENCE AND TEACHING METHODS (66 S.H.)

- EDUC 304 Human Development and Learning: MS Emphasis (4)
- EDUC 308 Human Relations and Student Diversity (3)
- EDUC 311 Instructional Planning and Assessment (3)
- EDUC 449 MS Philosophy, Organization and Interdisciplinary Planning (3)
- EDUC 459 The Professional Educator (3)
- EDUC 328 Teaching Reading and Language Arts I (3)
- EDUC 329 Teaching Reading and Language Arts II (3)
- EDUC 330 Literacy for Second Language Learners (3)
- EDUC 333 Teaching Social Studies in Elementary School (3)
- EDUC 334 Teaching Mathematics in Elementary School (3)
- EDUC 335 Teaching Science & Environmental Studies in Elementary School (3)
- EDUC 464 Student Teaching (16)
- ART 300 Elementary Art Education (3)
- HHP 320** Health Education in Elementary Schools (3) (HHP204 pre-requisite)
- MTED 125** Mathematics for Elementary Teachers (4)
- MUS 320 Music for Elementary Teachers (3)
- PER 200** Teaching Elementary Physical Education (3)

* Suggested course

** Can be taken prior to admission to program

*** Students can test out of this course

K-6 WITH MIDDLE SCHOOL MATHEMATICS (120 S.H.)

GENERAL EDUCATION (34 S.H.)

I. BASIC SKILLS (12 S.H.)

- ENG 111 Written Composition (4)
- CMST 191 Oral Communication (3)
- MATH 100 or higher Mathematics (3)
- Physical Education Elective (1)
- Physical Education Elective (1)

GENERAL EDUCATION BREADTH (16 S.H.)

- II. HUMANITIES History (3)
- III. NATURAL SCIENCE (lab) Elective (4)
- IV. SOCIAL SCIENCE Geography (3)
- V. DIFFERENT CULTURE Elective (3)
- VI. ALLIED STUDIES (filled by HHP 204) (3)

GENERAL EDUCATION DEPTH (from list above) (6 S.H.)

- A. STAT 110 (3)
- B. MATH 120 OR 140 OR 160 (3)

SPECIALTY PROGRAM REQUIREMENTS (19 S.H.)

- HIST 150* or 151* History (3)
- MTED 201* Mathematics (4)
- SPED 200 Exceptionality (3)
- Literature Elective (3)
- Science Elective (3)
- World Language/Fine Arts elective (3)
- Technology – Competency Exam

PROFESSIONAL SEQUENCE AND TEACHING METHODS (67 S.H.)

K-6 WITH MIDDLE SCHOOL SOCIAL STUDIES (122 S.H.)

GENERAL EDUCATION (34 S.H.)

I. BASIC SKILLS (12 S.H.)

- ENG 111 Written Composition (4)
- CMST 191 Oral Communication (3)
- MATH 100 or higher Mathematics (3)
- Physical Education Elective (1)
- Physical Education Elective (1)

GENERAL EDUCATION BREADTH (16 S.H.)

- II. HUMANITIES History 150 (3)
- III. NATURAL SCIENCE (lab) Elective (4)
- IV. SOCIAL SCIENCE Elective (3)
- V. DIFFERENT CULTURE History 123 or 165 or 170 (3)
- VI. ALLIED STUDIES (filled by HHP 204) (3)

GENERAL EDUCATION DEPTH (from list above) (6 S.H.)

- A. History 120 or 121 or 122 (3)
- B. Economics 202 (3)

SPECIALTY PROGRAM REQUIREMENTS (25 S.H.)

- GEOG 110 OR 320 (3)
- HIST 151* History (3)
- MTED 201* Mathematics (4)
- SOC 150 Social Science (3)
- SPED 200 Exceptionality (3)
- Literature Elective (3)
- Natural Science elective (3)
- World Language/Fine Arts elective (3)
- Technology – Competency Exam

PROFESSIONAL SEQUENCE AND TEACHING METHODS (63 S.H.)

- EDUC 304 Human Development and Learning: Middle School (4)
- EDUC 308 Human Relations and Student Diversity (3)
- EDUC 311 Instructional Planning and Assessment (3)
- EDUC 449 MS Philosophy, Organization and Interdisciplinary Planning (3)
- EDUC 459 The Professional Educator (3)
- EDUC 328 Teaching Reading and Language Arts I (3)
- EDUC 329 Teaching Reading and Language Arts II (3)
- EDUC 333 Teaching Social Studies in Elementary School (3)
- EDUC 334 Teaching Mathematics in Elementary School (3)
- EDUC 335 Teaching Science & Environmental Studies in Elementary School (3)
- EDUC 464 Student Teaching (16)
- ART 300 Elementary Art Education (3)
- HHP 320** Health Education in Elementary Schools (3) (HHP204 pre-requisite)
- MTED125** Mathematics for Elementary Teachers (4)
- MUS 320 Music for Elementary Teachers (3)
- PER 200** Teaching Elementary Physical Education (3)

* Suggested course

** Can be taken prior to admission to program

*** Students can test out of this course

K-6 WITH MIDDLE SCHOOL SCIENCE (SEE EDUCATION DEPARTMENT)

B.S. MAJOR – SECONDARY EDUCATION AND K-12 (32 S.H.)

Students are required to complete the professional education sequence and the teaching major within their discipline.

PROFESSIONAL EDUCATION SEQUENCE (32 S.H.)

- EDUC 305 Human Development and Learning (4)
- EDUC 308 Human Relations and Student Diversity (3)

- EDUC 312 Instructional Planning and Assessment (3)
- EDUC 429 Secondary Reading and Teaching (4)
- EDUC 449 Middle School Philosophy, Organization and Interdisciplinary Planning (3)
- EDUC 459 The Professional Educator (3)
- EDUC 460 Student Teaching (12)
- Technology - Competency Exam

Additional course required for licensure:

- PER 204 Personal and Community Health (3)

ADMISSION TO A TEACHER EDUCATION PROGRAM

(Effective August, 2000)

To be admitted to the Effective Educator Program, the student must:

- I. Attend the mandatory Admissions Meeting as posted by the Education Department. An admission meeting is scheduled each semester.
- II. Submit Admission Folder (distributed at the Admissions Meeting) to the Education Department containing:
 - A. completed application form to the Education Department
 - B. student issued transcripts from all institutions attended with the following data highlighted:
 1. completion of at least 30 semester hours of credit
 2. cumulative G.P.A. of 2.75 or better
 3. grade of "B" or better in ENG 111 or the transfer equivalent
 4. grade of "C" or better in MATH 100 or higher, or the transfer equivalent
 5. grade of "B" or better in CMST 191 or the transfer equivalent
 - C. photocopy of score report from the Pre-Professional Skills Test (PPST) for sections of Math, Reading, and Writing
 - D. photocopy of notification letter of having passed the Education Department Writing Clearance
 - E. transfer students must include a copy of their completed Credit Evaluation form prepared by the WSU Admission's Office.
- III. Request official transcript(s) from all institutions attended including Winona State University be sent to the Education Department. (The request for Official Transcript form will be distributed at the Admission's Meeting.)
- IV. Maintain a record of good citizenship

Alternate Admission

Students who do not meet the G.P.A. and/or Writing Clearance requirement for admission to the Effective Educator Program may request consideration under the alternate admissions standard by attaching a letter addressed to the chair of the department requesting consideration for alternate admission.

1. Students not achieving a cumulative 2.75 G.P.A. may provide an alternate 2.75 GPA calculation which is based upon the last 30 semester credits completed or quarter credit equivalent. Only entire semester or quarter coursework will be included in the calculation
2. Students not meeting the Writing Clearance may request alternate admission by submitting a passing score on the PPST Writing section.

NOTE:

Students seeking admission during summer 2000 must meet the criteria described in this document.

PPST competency in all three sections (Mathematics, Reading, and Writing) are required for teaching licensure.

The university reserves the right to consider as part of the Education Department's admission and retention policy those dispositions, general health, and scholastic achievement, or such other standards as may be appropriate.

Students must adhere to the WSU Student Conduct Policy.

RETENTION AND STUDENT TEACHING REQUIREMENTS

After a student has been accepted into the teacher education program, the student must first meet prerequisite requirements; (a grade of "C" or better in EDUC 303 and 310, or EDUC 304 and 311, or EDUC 305 and 312), and maintain the following scholastic personal records to be eligible for student teaching:

Elementary Education/Early Childhood Majors:

- 1) A grade of "C" or better in each course in the Professional Education Sequence; a grade of "C" or better in each course in the Elementary Education/Early Childhood Major;
- 2) 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;
- 3) The maintenance of a record of good citizenship;
- 4) The completion of all courses in the applicable 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 applicable 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) Teaching requirements identified by the major department as well as a completion of the Education Department's Professional Education Sequence courses prior to student teaching.

No Professional Education Sequence course, Early Childhood Education 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.

Students having to repeat more than two courses may be dropped from the program. Students also may be dropped from the program for failure to maintain the personal qualities, general health or other such standards as may be appropriate for teaching licensure.

GENERAL EDUCATION REQUIREMENTS FOR BACHELOR OF SCIENCE TEACHING DEGREES.

The general education component of the Bachelor of Science Teaching degree comprises both breadth and depth in course selection. Breadth is achieved by requiring 12 semester credits in Basic Skills and at least 22 semester credits (seven courses) from the areas of Humanities, Natural Science, Social Science, Different Cultures, and Allied Studies. Depth is achieved by requiring that at least two courses be taken from one of the five areas (Humanities, Natural Science, Social Science, Different Cultures, and Allied Science) and at least one course from the remaining four areas. This general education program is supported by additional program requirements within the education majors that provide the student with a broader and deeper general education.

NOTE: If you change your major from a teaching major to a non-teaching major, you must meet the standard General Education requirements listed in the undergraduate catalog.

GENERAL EDUCATION REQUIREMENTS* (34 S.H.)

- | | |
|---------------------------|---------|
| I. BASIC SKILLS: | 12 S.H. |
| A. Written Composition | 4 S.H. |
| English 111 | |
| B. Oral Communication | 3 S.H. |
| Communication Studies 191 | |

C. Mathematics Math 100 or higher	3 S.H.
D. Physical Education Activities	2 S.H.

A total of **seven courses** for a minimum total of 22 credits must be taken in the following five General Education areas. Students must take at least one course (3-credits) in each area.

- II. HUMANITIES
- III. NATURAL SCIENCE (1 LAB REQUIRED)
- IV. SOCIAL SCIENCE
- V. DIFFERENT CULTURE
- VI. ALLIED STUDIES

* These General Education Requirements are effective November 17, 1999:

1. Current students will remain under the old General Education Program unless they notify the Registrar's Office of their desire to graduate under the new general Education Requirements for the Bachelor of Teaching Degree.
2. All new WSU Teacher Education students as of November 17, 1999 will meet the new General Education Requirements.
3. New transfer students as of November 17, 1999 will meet new General Education Requirements.

STUDENT TEACHING APPLICATION

Application for student teaching is made to the Director of Student Teaching two semesters prior to the student teaching semester. Students apply for a semester when they will not have other commitments, i.e., coaching, music tours, classes, etc. Applications are available in the Department of Education Office.

STUDENT TEACHING REQUIREMENTS

Student teaching is required for all teacher education programs and is done during the final semester at Winona State University. One full semester is required in an area public school or early childhood program contracted by the University or elsewhere in Minnesota through the Common Market Program. All student teachers will complete a full semester, in their licensure area. Student teachers follow the calendars of their respective school districts. The Student Teaching Director will indicate the beginning and ending dates of placement.

Student teaching on the secondary level is required in all major fields. If a second major is completed, the Director of Student Teaching will indicate the WSU student teaching requirements necessary to meet licensure.

LICENSURE

Minnesota Licensure:

The State of Minnesota requires that all teacher education candidates for licensure shall:

- Hold a baccalaureate degree from a college or university that is accredited by the regional association for the accreditation of colleges and secondary schools;
- Demonstrate the standards for effective practice for licensing of beginning teachers; and,
- Verify the completion of an approved teacher preparation program.

LICENSES OFFERED AT WINONA STATE UNIVERSITY:

Early Childhood Education (Birth – Grade 3)

A teacher of early childhood education is authorized to design, implement, and evaluate developmentally appropriate learning experiences for young children from birth through grade 3 in a variety of early childhood, or public school K-3 settings and to collaborate with families, colleagues, and related service personnel to enhance the learning of all young children. Elementary education with a specialty (Preprimary age 3 – grade 6 or Middle School – Kindergarten – Grade 8)

The State of Minnesota requires elementary education teachers be authorized to teach all subjects to children in kindergarten through grade 6 and one of the following:

- Preprimary children age three and above
- A selected academic specialty in communication arts and literature, mathematics, science, social studies, or world language and fine arts to young adolescents in grades 5 through 8

The specialty in this subpart for which the teacher is licensed shall be identified on the teacher's license.

Specialty area licensure (Kindergarten – Grade 12) (Secondary Grades 5-12)

The Department of Education provides the Professional Ed Sequence portion of programs leading to teaching licensure in K-12 and Secondary Programs. Students must complete this sequence and the specialty program to receive licensure in the following areas:

Secondary (Grades 5-12)

- B.S. Major - Business Education (Teaching)
- B.S. Major - Chemistry (Teaching)
- B.S. Major - Communication Arts and Literature (Teaching)
- B.S. Major - Earth Science (Teaching)
- B.S. Major - English: Writing (Teaching)
- B.S. Major - French (Teaching)
- B.S. Major - German (Teaching)
- B.S. Major - Life Science (Teaching)
- B.S. Major - Mathematics (Teaching)
- B.S. Major - Physics (Teaching)
- B.S. Major - School and Community Health Education (Teaching)
- B.S. Major - Social Science/History (Teaching)
- B.S. Major - Spanish (Teaching)

K-12 Education Majors

- B.S. Major - Art (Teaching)
- B.S. Major - Health (Teaching)
- B.S. Major - Music (Teaching)
- B.S. Major - Physical Education (Teaching)
- B.S. Major - Special Education

Teaching Degree Requirements for B.A. Graduates

Students holding a bachelors 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.) You also must have a 'C' average in your minor if you request additional certification in your minor. You must have a minimum of a 'C' grade in each course in the Professional Education Sequence before you are allowed to student teach. To receive a second bachelor's degree, you must earn at least 30 semester credits after you complete your first degree.

Anyone applying for a Minnesota teacher license must have a course that 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 Children, Families and Learning'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 Sequence.

See the Registrar, Somsen Hall, Room 114, for more information on teacher certification. You must check with individual departments for any additional GPA requirements.

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 licensures 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.

The Board of Teaching/State Department of education issues licenses. Application for the license to teach in the State of Minnesota must be made during the last few weeks of the final semester 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 the "Teaching Degree Requirements for B.A. Graduates" in the Academic Information section of this catalog.

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.

Teacher Licensure in Other States:

Students interested in becoming certified to teach in states other than Minnesota must contact that state's Department of Education to obtain licensure requirements. Most states will issue a temporary license to allow time to complete differences in their requirements. See the Registrar's Office regarding any changes in licensure requirements for particular states.

Course Descriptions

Courses are offered on a Pass/No-Credit-Only or Grade-Only basis as so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicums. The P/NC option is available to non-majors unless otherwise noted.

115 - Improving Reading and Study Skills-1 S.H.

To assist students who may have problems with reading skills and to help them develop efficient study habits to participate successfully in college level courses. Offered each semester. P/NC only.

120 - Parenting-3 S.H.

The social, emotional, physical and intellectual development of children from birth to adolescence is outlined. Parenting strategies and child-rearing practices are discussed. Offered each semester. Grade only.

150 - Introductory Field Experience-1 S.H.

A general elective teaching assistant experience at a selected school level for either an introductory classroom experience or an additional classroom experience. May be repeated once for two credits. Offered each semester. P/NC Only. NOTE: Persons enrolling in EDUC 150 must arrange their schedule with the Field Experience Director in the Education Department prior to pre-registration. Prerequisite consent of instructor.

303 - Human Development and Learning: Preprimary-4 S.H.

This course introduces students to the psychological and social dimensions of learning and development and their influence on students' participation in school. The course focuses on psychological theories of learning and development and the relationship between psychological theory and classroom practice in early childhood and primary classrooms. 30 hours of field experience is required in addition to regularly scheduled on-campus class sessions. Offered each semester. Concurrent enrollment with EDUC 310.

304 - Human Development and Learning: Middle School-4 S.H.

This course introduces students to the psychological and social dimensions of learning and development and their influence on students' participation in school. The course focuses on psychological theories of learning and development and the relationship between psychological theory and classroom practice in elementary and middle school classrooms. 30 hours of field experience is required in addition to regularly scheduled on-campus class sessions. Offered each semester. Concurrent enrollment with EDUC 311.

305 - Human Development and Learning: Secondary and K-12 Programs-4 S.H.

This course introduces students to the psychological and social dimensions of learning and development and their influence on students' participation in school. The course focuses on psychological theories of learning and development and the relationship between psychological theory and classroom practice in secondary classrooms. 30 hours of field experience is required in addition to regularly scheduled on-campus class sessions. Offered each semester. Concurrent enrollment with EDUC 312.

308 - Human Relations and Student Diversity-3 S.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 each semester. Prerequisites: Admission to the Department of Education.

310 - Instructional Planning and Assessment:

Preprimary-3 S.H.

Principles of curriculum formation including writing of 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 each semester. Taken concurrently with EDUC 303.

311 - Instructional Planning and Assessment: Middle School-3 S.H.

Principles of curriculum formation including writing of objectives, unit planning and daily lesson planning for elementary and middle levels form the emphasis of this course. Assessment, measurement and evaluation techniques are studied to determine achievement of objectives through teacher-made tests, standardized tests and observation techniques. Statistics of measurement, specialized measurement instruments and test interpretation are also studied. Thirty-clock-hours of field experience are required, in addition to the regularly scheduled on-campus class sessions. Offered each semester. Taken concurrently with EDUC 304.

312 - Instructional Planning and Assessment: Secondary and K-12-3 S.H.

Principles of curriculum formation including writing of objectives, unit planning and daily lesson planning for secondary education form the emphasis of this course. Assessment, measurement and evaluation techniques are studied to determine achievement of objectives through teacher-made tests, standardized tests and observation techniques. Statistics of measurement, specialized measurement instruments and test interpretation are also studied. Thirty-clock-hours of field experience are required, in addition to the regularly scheduled on-campus class sessions. Offered each semester. Taken concurrently with EDUC 305.

321 - Children's Literature-3 S.H.

This course teaches students about children's literature. Consideration will be given to locating and evaluating early literacy, primary and intermediate children's books and to the method of organizing, teaching, and evaluating a literature program at all age levels. Current issues and research will be examined. Offered summers only. Prerequisite: EDUC 303

328 - Teaching Reading and Language Arts I-3 S.H.

The first of a two-course sequence in literacy methods examines the integration of reading, writing, listening, speaking, and viewing competencies in a unified literacy curriculum for learners ages three to eight (P-3rd grade). Instructional emphasis is placed upon assessment, fluency, active construction of meaning, and matching learner capabilities with appropriate instructional strategies. Offered each semester. Prerequisites: EDUC 303 or 304, 310 or 311. (Early Childhood majors do not require 310, 311 or 312.)

329 - Teaching Reading and Language Arts II-3 S.H.

The second of a two-course sequence in literacy methods extends the examination of reading, writing, listening, speaking, and viewing competencies by focussing on learners ages nine to fourteen (4th-8th grade). Emphasis is placed upon strategies for expanding purposes and genres, integration of assessment and instruction, and teaching for self-regulation of comprehension, composing, and editing strategies. Offered each semester. Prerequisite: EDUC 328.

330 - Literacy for Second Language Learners-3 S.H.

This course addresses the teaching of literacy for students with a primary language other than English. After examining the interwoven nature of language and culture, the course will focus on the instructional approaches to meet the needs of second language learners in school settings. Special attention will be given to the role of home school communication in programs for second language learners. Offered each semester. Prerequisite: EDUC 328.

331 - Teaching of Social Studies in Secondary Schools-3 S.H.

Materials and methods of teaching geography, history and civics, including the newest textbooks, maps, pictures and other visuals. Prerequisites: EDUC 305 and 312. Offered each semester.

333 - Teaching Social Studies in Elementary School-3 S.H.

Course covers social studies curriculum for elementary grades. 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 classrooms. Field Experience, micro-teaching, unit planning, and the use of Children's Literature in the social studies curriculum are included in this course. Offered each semester. Prerequisites: EDUC 303 and 310 or 304 and 311.

334 - Teaching Mathematics in the Elementary School-3 S.H.

Teaching competencies such as guiding student inquiry, demonstrating mathematical principles and procedures, and using a variety of instructional aids are developed in relation to scope and sequence of elementary curriculums. Offered each semester. Prerequisites: EDUC 303 and 310 or 304, and 310 or 311. (Early Childhood majors do not require 310 or 311.)

335 - Teaching of Science and Environmental Studies in Elementary School-3 S.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 field experiences. Offered each semester. Prerequisites: EDUC 303 and 310, 304 and 311. (Early Childhood majors do not require 310 or 311.)

352 - Integrating Microcomputers into the Classroom-3 S.H.

This course covers basic technological knowledge which will enable the teacher to plan technology based instruction, integrate technology into the curriculum and enhance the teachers' technological competencies. Offered each semester. Prerequisites: Admission to the Department of Education.

410 - Foundations of Early Childhood, Trends and Issues-3 S.H.

This is the introductory course in early childhood education examining the history, theory, trends and contemporary issues in early childhood education as well as the role of the early childhood teacher. Offered each semester. Prerequisites: Admission to the Department of Education.

413- Infant/Toddler Development and Curriculum-3 S.H.

Genetics, prenatal development, birth, and physical, social, emotional, and cognitive development in the first two-years with emphasis on care in group settings. Includes experiences with infants and toddlers. Offered yearly. Prerequisites: EDUC 303 and 410

414- The Developing Child in the Social World-3 S.H.

This course covers physical, social, emotional, language and cognitive development of children ages 3-6, in learning environments and the community relationships needed to support this development. Offered yearly. Grade only. Prerequisites: EDUC 303, 410.

416 - Early Childhood Education -4 S.H.

Planning the curriculum and developing effective teaching strategies and assessment methods for young children from 2 and 1/2 years old through 5 years old. Students gain experience in a supervised preschool program. Offered each semester. Grade only. Prerequisites: EDUC 303 and 410.

424 - Organization and Administration of Early Childhood Education Programs-3 S.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. Grade only. Prerequisites: EDUC 303, 410, and 416.

427 - Development and Remediation of Reading-3 S.H.

Emphasis is on reading comprehension, diagnosis and remediation of reading focused on middle level learners in a holistic approach through reading strategies and the use of adolescent literature. Offered on demand. Prerequisites: EDUC 304 and 311, 305 and 312.

429 - Secondary Reading and Teaching-4 S.H.

Emphasis is on reading comprehension, strategies, study skills in content areas, lesson planning, lesson presentation skills, media techniques appropriate to the instructional process. Prerequisites: EDUC 305, 312. Offered each semester.

434 - Remedial Mathematics Methods-3 S.H.

Diagnostic and remediation techniques to facilitate acquisition of basic mathematics skills. Offered on demand. Prerequisite: EDUC 334 or instructor's permission.

442 - The Adult Learner-3 S.H.

This course focuses on the characteristics and development of adult learners. Offered yearly.

449- Middle School Philosophy, Organization and Interdisciplinary Planning-3 S.H.

The major focus of this course will be the middle school concept including its philosophy, organization, and interdisciplinary team planning. The major objective of this course is to provide future middle school teachers with a background in the components of the middle school movement and planning appropriate instructional strategies for middle level learners. This course is designed for secondary education majors, K-12 majors, and those seeking K-6 MS licensure. Thirty-clock-hours of field experience are required in addition to the regularly scheduled on campus class sessions. Offered each semester. Grade only. Prerequisites: EDUC 304, and 311 or 305 and 312.

450 - Comparative Education-3 S.H.

A study of the purposes, organization, offerings, and achievements of education in selected foreign countries. Offered yearly. Grade only.

459 - The Professional Educator-3 S.H.

This course is designed to familiarize teacher education majors and others associated with the education profession with the historical and philosophical foundations of public education, school organizational patterns, legal responsibilities, professional organizations, and related educational issues. Additional components will involve classroom management and topics related to inclusive and special education. Offered each semester. Prerequisites: EDUC 303, 304, or 305, 310, 311, or 312 and Junior or Senior standing. (Early Childhood majors do not require 310, 311 or 312.)

460 - Student Teaching- K6/PrePrimary-1-16 S.H.

A Capstone student teaching experience. One full semester of student teaching on a daily, full-time basis in an appropriate educational school setting. P/NC only. Prerequisites: All the professional courses required for the major.

464 - Student Teaching/K-6- Middle School-1-16 S.H.

One full semester of student teaching on a full-day basis in a middle school. Offered each semester. P/NC only. Prerequisites: All the professional courses required for the major.

465 - Student Teaching-Senior High School- K-12 Specialty-1-16 S.H.

A Capstone student teaching experience. One full semester of student teaching on a daily, full-time basis in an appropriate educational school setting. P/NC only. Prerequisites: All the professional courses required for the major.

467 - Student Teaching-Early Childhood (Birth to Grade 3)-16 S.H.

Supervised teaching in two (2) Early Childhood placements. Offered each semester. P/NC only.

470 - Advanced Practicum in Middle School-1-5 S.H.

A supervised practicum in middle level education at a middle school site. Prerequisites: See Education Department regarding prerequisites. Offered yearly.

483 - Curriculum, Methods, and Resources in Multicultural Global Education-3 S.H.

This course provides structure for acquiring, building and demonstrating mechanisms for integrating multicultural content into mainstream curricula. Specific attention is geared to goals, concepts and instructional planning in elementary education addressing culture, ethnicity, race, gender, language, socioeconomic levels, religion, age, ethics and exceptionality. The social reconstructionist approach is infused to provide demonstrations of transforming teaching for equity and justice.

490 - Individual Problem in Education-1-3 S.H.

Opportunity for the qualified advanced undergraduate and graduate student to work independently. Topics may include research, development of special projects, selected readings, etc. Time arranged. Offered each semester. P/NC only for undergraduates. Prerequisites: major advisor's permission; completion of the Professional Sequence, and for Elementary majors, completion of the Professional Education Sequence. May be repeated to a total of 4 credits.

498 - Workshops and Seminar-1-3 S.H.

The subject matter to be developed by the Department and instructor prior to the workshop or seminar. Students may repeat the course without limitation on the number of credits as long as the subject matter is different. Offered on demand. P/N/C only.

499 - Workshops and Seminar-1-3 S.H.

The subject matter to be developed by the Department and instructor prior to the workshop or seminar. Students may repeat the course without limitation on the number of credits as long as the subject matter is different. Offered on demand. Grade only.

ENGINEERING

Stark Hall, Room 203, (507) 457-5685

Parsi (Chairperson), Abdel-Magid, Dennehy, Grami, Scheer

Faculty

Beckry Abdel-Magid, Professor; B.S., University of Khartoum; M.S., Ph.D., University of Wisconsin-Madison; 1990 -

Keith Dennehy, Professor; B.S., Rensselaer Polytechnic Institute; M.S., Youngstown State University; M.B.A., University of Utah; Ph.D., Rensselaer Polytechnic Institute; 1990 -

Maryam Eslamloo-Grami, Associate Professor; B.S., Shiraz University, Iran; M.S., Shiraz University, Iran; Ph.D., University of California-Davis, 1993 -

Fariborz Parsi, Associate Professor; B.S., M.S., Ph.D., University of South Carolina, Columbia; 1991 -

Robert Scheer, Assistant Professor; B.S., Duke University; Ph.D., University of Utah; 1998 -

The Department of Engineering offers the Bachelor of Science 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 for people educated in the engineering of composite materials is bright.

The Composite Materials Engineering Program at WSU 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 also will be prepared to enter graduate level programs in composite materials and other related engineering disciplines.

The Composites Material 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 fibers, matrices and fiber/matrix systems. The program is the first accredited undergraduate composite materials engineering program in the United States.

Mission and Objectives

The Mission of the Composite Materials Engineering Program is "to serve society by developing creative engineering minds for the world of tomorrow!"

The Objectives of the Composite Materials Engineering Program are:

1. The Educational Objectives of the CME Program are:
 - a. To produce graduates with an ability to apply knowledge of mathematics, science and engineering to formulate and solve engineering problems.
 - b. To produce graduates with the ability to design and conduct experiments as well as to analyze and interpret data related to structure, properties, processing, and performance of materials.
 - c. To produce graduates with an ability to use state-of-the-art engineering tools (experimental, computational, and statistical) necessary to select, analyze, design, fabricate, and test materials.
 - d. To produce graduates with theoretical knowledge and hands-on ability to confidently design components, systems, and processes to meet the needs of the composites industry in a cost-effective manner.
 - e. To produce graduates with an ability to communicate effectively and function in a multi-disciplinary team.
 - f. To produce graduates who understand their responsibilities to the engineering profession.
 - g. To produce graduates with an awareness of contemporary issues within a global context, and an understanding of the impact of their decisions on society.
 - h. To produce graduates who recognize the need and have the ability to engage in life-long learning.
2. To continuously improve the CME Program
3. To provide cost effective engineering education
4. To provide an active research environment
5. To be a composite materials engineering resource center
6. To be an engineering/technology resource center for this region
7. To effectively manage enrollment
8. To provide opportunities for faculty and staff development
9. To facilitate part-time and full-time employment of students and graduates in engineering/composites related positions

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 4 s.h. of English composition, 3 s.h. of speech communication and a minimum of 38 s.h. 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 a minimum GPA of 2.5 in the required courses. These courses can be taken at WSU or transferred from other institutions. Courses with grades below "C" or courses with P/NC will not be accepted in transfer. Students will not be allowed to enroll in upper division 300- or 400-level engineering courses until either admitted into the major or by obtaining special permission from the 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 semester in courses required for the major falls below 2.0 or if they do not complete at least one course in the major each semester. Students will be disqualified from the major if they were on probation for two consecutive semesters or for three non-consecutive semesters after admission to the major. Petition for reinstatement will be considered by the Department of Engineering.

Because composite materials engineering is a rapidly developing field, students must consult with their Department of Engineering major advisor for current program requirements.

General Education Requirements

The general education component of the Bachelor of Science in Composite Materials Engineering degree requires both breadth and depth in the course selection. Breadth is achieved by requiring two courses (7 semester hours) in Basic Skills and 15 s.h. (at least 5 courses) from the areas of Humanities, Social Sciences and Different Culture. Depth is achieved by requiring that two courses be taken from the same department in two of the three areas. In the third area, students may take any general education course approved for that area (see General Education Requirements).

I. BASIC SKILLS (7 S.H.)

- ENG 111 College Reading & Writing (4)
- CMST 191 Fundamentals of Speech Communication (3)

II. HUMANITIES (3-6 S.H.)

The courses can be taken from the departments listed in the HUMANITIES section under the General Education Requirements. However, the following courses will not be considered:

- THAD 001 Theatre Activities
- CMST 196 Fundamentals of Interviewing
- LANG 200 Exploratory Foreign Language

III. SOCIAL SCIENCES (3-6 S.H.)

The courses can be taken from the departments listed in the SOCIAL SCIENCES section under the General Education Requirements.

IV. DIFFERENT CULTURE (3-6 S.H.)

The courses can be taken from the departments listed in the DIFFERENT CULTURE section under the General Education Requirements. However, the following courses will not be considered:

- English
 - 105 Non-Native Speakers/Listening
 - 106 Non-Native Speakers/Reading & Writing I
 - 107 Non-Native Speakers/Reading & Writing II

IMPORTANT NOTE:

Upon enrollment at WSU, all courses taken for credit toward the Bachelor of Science degree in Composite Materials Engineering must be taken for a letter grade. The one exception is the Foreign Language courses where a grade of "P" (passing) has been obtained either through an exam or successful completion of upper-level foreign language courses.

Students receiving a waiver from certain general education courses must take an equal number of credit hours of elective courses.

B.S. MAJOR - COMPOSITE MATERIALS ENGINEERING

106 S.H. (No Minor Required)

CORE REQUIREMENTS (85 S.H.)

Lower Division (51 s.h.)

Mathematics (16 s.h.)

- 160 Calculus I (4)
- 165 Calculus II (4)
- 260 Multivariable Calculus (4)
- 270 Differential Equations & Linear Algebra (4)

Chemistry (8 s.h.)

- 212 Principles of Chemistry I (4)
- 213 Principles of Chemistry II (4)

Physics (8 s.h.)

- 221 University Physics I (4)

- 222 University Physics II (4)

Computer Science (3 s.h.)

- 231 Fortran for Engineering & Science (3)

Engineering (16 s.h.)

- 102 Introduction to Engineering (2)
- 182 Engineering Graphics & Design (2)
- 250 Statics (3)
- 260 Mechanics of Materials (3)
- 284 Properties of Materials (4)
- 292 Properties of Materials Lab (2)

Upper Division (34 s.h.)

Mathematics (3 s.h.)

- 303 Engineering Statistics (3)

Physics (3 s.h.)

- 302 Electrical Circuits & Systems (3)

Engineering (28 s.h.)

- 300 Thermodynamics (3)
- 350 Fluid Mechanics (3)

- 360 Introduction to Composites Materials (3)
- 370 Heat & Mass Transfer (3)
- 390 Composites Manufacturing (3)
- 451 Transport Phenomena Laboratory (1)
- 452 Mechanical Characterization Laboratory (2)
- 465 Composite Characterization Techniques (3)
- 475 Design Project I (3)
- 480 Design Project II (3)
- 491 A/B Engineering Seminar (1)

MECHANICAL OPTION

21 S.H.

REQUIRED COURSES (12 S.H.)

Engineering (8 s.h.)

- 270 Dynamics (3)
- 382 Topics in Composite Materials Engineering M (2)
- 450 Mechanics of Composites (3)

Chemistry (4 s.h.)

- 341 Organic & Polymer Chemistry (4)

TECHNICAL ELECTIVES (9 S.H.)

Engineering Electives (6 s.h.)

- 420 Computer Integrated Manufacturing (3)
- 460 Introduction to Finite Element Analysis (3)
- 485 Advanced Microscopic Techniques (3)
- 499 Independent Study (1-3)

Non-Engineering Electives (3 s.h.)

- MATH 340 Advanced Linear Algebra (3)
- PHYS 330 Electronics (4)
- STAT 321 Industrial Design of Experiments I (3)
- PHYS 420 Control Theory (3)
- MATH 420 Numerical Analysis (4)

CHEMICAL OPTION

21 S.H.

REQUIRED COURSES (12 S.H.)

Engineering (4 s.h.)

- 392 Topics in Composite Materials Engineering C (2)
- 412 Kinetics & Reactor Design (2)

Chemistry (8 s.h.)

- 350 Principles of Organic Chemistry I (4)
- 352 Principles of Organic Chemistry II (2)
- 410 Polymer Chemistry (2)

TECHNICAL ELECTIVES (9 S.H.)

Engineering Electives (6 s.h.)

- 410 Polymer Processing (3)
- 430 Rheology (3)
- 485 Advanced Microscopic Techniques (3)
- 499 Independent Study (1-3)

Non-Engineering Electives (3 s.h.)

- CHEM 425 Analytical Chemistry I (4)
- CHEM 426 Analytical Chemistry II (4)
- CHEM 411 Synthesis & Characteristics of Polymers (2)
- STAT 321 Industrial Design of Experiments I (3)
- PHYS 420 Control Theory (3)

GENERALIZED CLASS SCHEDULE

FRESHMAN YEAR-

Fall (17 S.H.)

- ENGR 102 Introduction to Engineering (2)
- MATH 160 Calculus I (4)
- CHEM 212 Principles of Chemistry I (4)
- ENG 111 College Reading & Writing (4)
- General Education (3)

Spring (17 S.H.)

- CHEM 213 Principles of Chemistry II (4)
- ENGR 182 Engineering and Graphics & Design (2)
- MATH 165 Calculus II (4)
- PHYS 221 University Physics I (4)

CMST 191 Fundamentals of Speech Communication (3)

SOPHOMORE YEAR -

Fall (18 S.H.)

- ENGR 250 Statics (3)
- ** CHEM 350 Principles of Organic Chemistry I (4)
- * CHEM 341 Organic & Polymer Chemistry (4)
- MATH 260 Multivariable Calculus (4)
- PHYS 222 University Physics II (4)
- CS 231 Fortran for Engineering & Science (3)

Spring (15-16* S.H.)**

- ** CHEM 352 Organic Chemistry (2)
- MATH 270 Differential Equations & Linear Algebra (4)
- ENGR 260 Mechanics of Materials (3)
- * ENGR 270 Dynamics (3)
- ENGR 284 Properties of Materials (4)
- ENGR 292 Properties of Materials Lab (2)

JUNIOR YEAR -

Fall (15*-17 S.H.)**

- ** CHEM 410 Polymer Chemistry (2)
- ENGR 300 Thermodynamics (3)
- ENGR 350 Fluid Mechanics (3)
- ENGR 360 Introduction to Composite Materials (3)
- STAT 303 Engineering Statistics (3)
- General Education (3)

Spring (17 S.H.)

- ENGR 370 Heat & Mass Transfer (3)
- * ENGR 382 Topics in Composite Materials Engineering M (2)
- ENGR 390 Composites Manufacturing (3)
- ** ENGR 392 Topics in Composite Materials Engineering C (2)
- PHYS 302 Electrical Circuits & System (3)
- Technical Elective (3)
- General Education (3)

SENIOR YEAR -

Fall (14-15* S.H.)**

- ENGR 465 Composite Characterization Techniques (3)
- ** ENGR 412 Kinetics & Reactor Design (2)
- * ENGR 450 Mechanics of Composites (3)
- ENGR 451 Transport Phenomena Laboratory (1)
- ENGR 452 Mechanical Characterization Laboratory (2)
- ENGR 475 Design Project I (3)
- ENGR 491A Engineering Seminar (0)
- General Education (3)

Spring (13 S.H.)

- ENGR 480 Design Project II (3)
- ENGR 491B Engineering Seminar (1)
- Technical Elective (3)
- Technical Elective (3)
- General Education (3)

* Mechanical Option

** Chemical Option

Engineering Course Descriptions

All engineering courses are to be taken for grade only. All courses are offered at least once a year except when indicated otherwise.

102 - Introduction to Engineering-2 S.H.

History of engineering, engineering disciplines, professional and ethical aspects of engineering, introduction to problem-solving, creativity and teamwork, use of personal computers in engineering applications, safety and environmental issues, current engineering challenges. Grade only.

182 - Engineering Graphics and Design-2 S.H.

Quarter Course: 205.

A lecture-laboratory course. Engineering design process. Visualization and design communication. Engineering drawing standards and conventions. Computer-aided drafting and design (CADD) software are used throughout the course. Sectional views, auxiliary views, dimensioning, tolerancing, and blue print reading. Grade only.

250 - Statics-3 S.H.

Quarter Course: 225.

Force systems and equilibrium. Applications to simple trusses, frames and machines; distributed loads; properties of areas and mass-

es; laws of friction. Designed to develop the ability to analyze and solve engineering problems. Prerequisites: MATH 160 and PHYS 221. Grade only.

260 - Mechanics of Materials-3 S.H.

Quarter Course: 360.

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 250 and MATH 165. Grade only.

270 - Dynamics-3 S.H.

Quarter Course: 350.

Kinematics: translation, rotational, plane motion and relative motion of particles and rigidbodies. Planar kinematics of rigid bodies. Kinetics of particles and rigid bodies by methods of: force-mass-acceleration, work energy, impulse and momentum, introduction to vibrations. Prerequisites: ENGR 250, PHYS 222 and credit or concurrent registration in MATH 270. Grade only.

284 - Properties of Materials-4 S.H.

Quarter Course: 316.

Classification of materials, atomic bonding, crystal structures, diffusion, mechanical properties of materials, introductory theory of elasticity, plasticity, strengthening mechanisms and failure modes, phase diagrams, phase transformations and thermal processing, structure and properties of ceramics, structure and properties of polymers, structure and mechanical properties of wood and concrete, and corrosion of materials. Prerequisites: CHEM 213 and credit or concurrent registration in ENGR 260. Grade only.

292 - Properties of Materials Laboratory-2 S.H.

A lecture-laboratory course. Determination of various material properties. Crystal structure by hardball models; X-ray powder diffraction; diffusion; tensile; hardness; microhardness; fatigue testing of metallic samples; fracture-ductile to brittle transition of engineering materials; examination of microstructure of ferrous, non-ferrous alloys, and polymeric materials; structure and properties of wood; corrosion and degradation of metallic materials. Prerequisites: credit or concurrent registration in ENGR 284. Grade only.

300 - Thermodynamics-3 S.H.

Quarter Course: 345 and 346.

Basic thermodynamic principles: enthalpy, entropy, free energy, equations of state, non-ideal gases, and irreversibility. First and second laws applied to non-reacting systems, phases, phase transitions, thermodynamics of chemical reactions, and first law analysis of reacting systems. Prerequisite: PHYS 222. Grade only.

350 - Fluid Mechanics-3 S.H.

Quarter Course: 375.

Pressure and flow measurements, hydrostatic force, continuity and momentum equations, flow in conduits, velocity distribution, drag force, pump calculations, flow through porous media. Prerequisite: MATH 270. Grade only.

360 - Introduction to Composite Materials-3 S.H.

Quarter Course: 392.

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 284 and credit or concurrent registration in CHEM 341 or CHEM 410. Grade only.

370 - Heat and Mass Transfer-3 S.H.

Quarter Course: 376.

Conduction, convection, radiation, energy equation, design and analysis of heat exchanger, boiling and condensation heat transfer, Fick's Law, molecular diffusion in solids, gases and liquids, and mass balance. Prerequisite: ENGR 350. Grade only.

382 - Topics in Composite Materials Engineering M-2 S.H.

Varying topics in composite materials engineering for mechanical option students. Includes kinetics and rate of reactions and its application to the manufacturing and performance of composite parts, engineering economy and its application to the design process and manufacturing of composite parts. Prerequisites: ENGR 360. Grade only.

390 - Composites Manufacturing-3 S.H.

Quarter Course: 415 and 416.

A lecture-laboratory course. General manufacturing issues including: flow of a product through a manufacturing firm, environmental, health and safety issues, learning curve. Fabrication processes for polymeric and non-polymeric composite materials. Prerequisite: ENGR 360. Grade only.

392 - Topics in Composite Materials Engineering C-2 S.H.

Varying topics in composite materials engineering for chemical option students. Includes micro-mechanics of composite materials, behavior and properties of unidirectional laminas, engineering economy and its application to the design process and manufacturing of composite parts. Prerequisites: ENGR 360. Grade only.

410 - Polymer Processing-3 S.H.

Quarter Course: 465.

Chemical and physical properties of polymers, additives, mixing and compounding, rheology of polymer melts, continuity, energy, and momentum equations, qualitative description and quantitative modeling of: extrusion, blow molding, thermoforming, injection molding, compression molding, and rotational molding processes. Recycling. Prerequisite: ENGR 350. Grade only. Offered a minimum of once every two years.

412 - Kinetics and Reactor Design-2 S.H.

Quarter Course: 391.

Fundamental concepts of the rate of homogenous reactions, ideal batch and flow reactors and their prospective designs, materials and energy balance around chemical reactors and the rate of reaction of thermosetting resins. Prerequisites: CHEM 213 and MATH 270. Grade only.

420 - Computer Integrated Manufacturing-3 S.H.

Quarter Course: 445.

Open systems 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 390. Grade only. Offered a minimum of once every two years.

430 - Rheology-3 S.H.

Quarter Course: 475.

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. Prerequisite: ENGR 350. Grade only. Offered a minimum of once every two years.

450 - Mechanics of Composites-3 S.H.

Quarter Course: 482.

Micromechanics of composite materials. Behavior and mechanical properties of unidirectional composites. Study of failure modes, hydrothermal 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. Laminated Plate Theory. Composites Design. Prerequisites: MATH 270, ENGR 260 and ENGR 360. Grade only.

451 - Transport Phenomena Laboratory-I S.H.

Quarter Course: 377.

A lecture-laboratory course. Theories of pressure, flow, and temperature measurements. Experiments in momentum, heat and mass transfer. Prerequisites: ENGR 350, ENGR 370 and STAT 303. Grade only.

452 - Mechanical Characterization Laboratory-2 S.H.

Quarter Course: 483.

A lecture-laboratory course. Experimental characterization of composite materials, including density of fibers, fiber content, tension, compression, flexure, in-plane shear, interlaminar shear, fatigue and impact properties of composite materials. Effect of stress concentration in composites. Lamina thermoelastic and off-axis response, and nondestructive evaluations of composites. Prerequisites: STAT 303, ENGR 260 and ENGR 360. Grade only.

460 - Introduction to Finite Element Analysis-3 S.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, shell and composite elements formulations, algorithms

for construction and solution of the governing equations, numerical errors and convergence, modeling and programming. Prerequisites: ENGR 260, MATH 270 and CS 231. Grade only. Offered a minimum of once every two years.

465 - Composite Characterization Techniques-3 S.H.

Quarter Course: 484.

A lecture-laboratory course. Overview of various thermal, chemical, microscopic and surface characterization techniques and their applications to composite materials. Determination of thermomechanical, viscoelastic, glass-transition temperature, melting point, and cure properties of polymer matrix composites. Determination of thermal stability and surface analysis of metal matrix composites. Emphasis on technical writing of laboratory reports. Prerequisites: ENGR 360. Grade only.

475/480 - Design Project I/II-3 S.H. (each)

Quarter Course: 447/448.

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 390. Grade only.

485 - Advanced Microscopic Techniques-3 S.H.

A lecture-laboratory course. Theory and the use of scanning electron microscopes and transmission electron microscopes; theory of 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. Qualitative and semi-quantitative X-rays microanalysis of metal matrix composites. Emphasis on technical writing of laboratory reports. Prerequisites: ENGR 360. Grade only. Offered a minimum of once every two years.

491 A/B Engineering Seminar-1 S.H.

Quarter Course: 499 A/B.

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 491A in order to receive credit for 491B. Grade only.

499 - Independent Study-1-3 S.H.

Quarter Course: 495.

Designed for the undergraduate student who wishes to engage in research. Subject and credit to be arranged with instructor. Requires the approval of the Department of Engineering. Grade only.

ENGLISH

Minne Hall, Room 302, (507) 457-5440

Robinson (Chairperson), Armstrong, Bennett, Carducci, Cowgill, DeGrazia, Dorner, Eddy, Forsythe, Gadow, Galbus, Grawe, G. Johnson, P. Johnson, Lund, Meeker, A. Nichols, J. Nichols, Shi

Faculty

James Armstrong, Assistant Professor; B.A., Northwestern University; M.F.A., Western Michigan University; Ph.D., Boston University; 1999 -

Sandra Bennett, Professor; B.A., Brigham-Young University; M.A., Ph.D., University of Utah; 1976 -

Jane Carducci, Professor; B.A., Colorado College, Colorado Springs; M.A., Ph.D., University of Nevada; 1992 -

Bruce Kent Cowgill, Professor; B.S., Midland College; M.A., Ph.D., University of Nebraska; 1970 -

Emilio DeGrazia, Professor; B.A., Albion College; M.A., Ph.D., Ohio State University; 1969 -

Marjorie Dorner, Professor; B.A., St. Norbert College; M.A., Marquette University; Ph.D., Purdue University; 1971 -

Gary Eddy, Professor; B.A., University of Texas-El Paso; M.F.A., University of Arizona; Ph.D., State University of New York-Binghamton; 1988 -

Ruth Forsythe, Professor; B.A., St. Olaf College; M.A., Ph.D., University of Minnesota-Twin Cities; 1977 -

Donald Gadow, Associate Professor; B.S., Mankato State University; M.S., St. Cloud State University; 1986 -

Carol Galbus, Associate Professor; B.S., Edgewood College, (Wisconsin); M.A.T., St. Mary's College of Minnesota; 1986 -

Paul H. Grawe, Professor; B.A., Carleton College; M.A., Ph.D., Northwestern University; 1968 -

Goldie Johnson, Associate Professor; B.S., M.S., University of Wisconsin-Superior; 1988 -

J Paul Johnson, Associate Professor; B.S., Valley City State University; M.A., University of North Dakota; 1987 -

Orval A. Lund, Jr., Professor; B.A., Moorhead State University; M.A., University of Arizona; M.F.A., Vermont College; 1968 -

Michael Meeker, Professor; B.A., M.A., Northern Illinois University; Ph.D., University of Wisconsin-Madison; 1977 -

Ann Eljenholm Nichols, Professor; B.A., St. Mary's College-Notre Dame; M.S., Ph.D., University of Washington; 1981 -

James W. Nichols, Professor; B.A., University of Missouri-Columbia; M.A., University of Birmingham (United Kingdom); Ph.D., University of Washington; 1968 -

David E. Robinson, Professor, English; B.A., Hamilton College; M.A., Ph.D., Duke University; 1971 -

Huifen Shi, Associate Professor; B.A., Shanghai International Studies University; M.A., Ph.D., Indiana University of Pennsylvania; 1995 -

The English Department is concerned with the English language as art and communication. At the lower academic levels, courses are designed to help students acquire competence in reading and writing, thinking critically, and 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 linguistic studies.

Students majoring in English should complete the lower-division requirements in English before registering for the upper-division courses. For English majors and minors, ENG 201 is a prerequisite to all English courses numbered 200 or above except for ENG 210, ENG 223, ENG 224 and ENG 251.

Honors Program

The English Department offers an English Honors Program. For details about the program, see the departmental secretary in Minne 302.

Teaching Majors

Except in unusual circumstances, the English Department recommends for student teaching only those students who have a minimum 2.75 GPA and who have earned at least a B in each of the following courses: ENG 201, ENG 210 and ENG 402.

Prerequisites

Prerequisites to all major and minor programs in English: ENG 111 and ENG 201.

Pass/No Credit Courses

No courses in the department except internships are open to declared English majors or minors on a P/NC basis. Students not majoring or minoring in English can take any course in the department on a P/NC basis (provided they have met the prerequisites) except ENG 099, ENG 105, ENG 106, ENG 107, ENG 111, ENG 120, ENG 121, ENG 125, ENG 131, ENG 223, ENG 224, ENG 251 and Humanities 140 which are Grade only.

B.A. MAJOR - ENGLISH

49 S.H. (No Minor Required)

REQUIRED COURSES (34 S.H.)

- 201 Writing about Literature (3)
- 210 Advanced Expository Writing (3) OR
- 310 Story Writing (3) OR
- 312 Poetry Writing (3) OR
- 314 Non-fiction Prose Writing (3)
- 223 Classical Mythology (3) OR
- 224 Bible as Literature (3)
- 405 Chaucer (3)
- 414 Shakespeare: Comedies & Histories (3) OR
- 417 Shakespeare: Tragedies (3)
- 418 Stylistics (3) OR
- 420 Introduction to Language Study (3)
- 406 Studies in 16th-Century Literature (3) OR
- 407 Studies in 17th-Century Literature (3) OR
- 408 Studies in 18th-Century Literature (3)
- 435 Literature of the Romantic Era (3) OR
- 437 Literature of the Victorian Era (3)
- 447 Modern Literary Criticism (3)
- 351 American Literature I (3) OR
- 352 American Literature II (3) OR
- 353 American Literature III (3)
- 424 Modern Drama (3) OR
- 425 Modern British & American Prose (3) OR
- 432 European & Non-Western Literature (3) OR
- 450 Modern British & American Poetry (3)
- 490 Portfolio (1)

ELECTIVES (15 S.H.)

Electives must be English courses at the 200 level or above including at least 9 s.h. in courses numbered 300 or above.

**B.A. MAJOR - ENGLISH:
WRITING OPTION**

49 S.H. (No Minor Required)

REQUIRED COURSES (34 S.H.)

- 201 Writing about Literature (3)
- 210 Advanced Expository Writing (3)
- 224 Bible as Literature (3)
- 310 Story Writing (3)
- 312 Poetry Writing (3)
- 314 Non-fiction Prose Writing (3)
- 418 Stylistics (3)
- 439 Technical Writing (3)
- 410 Advanced Creative Writing: Prose (3) OR
- 412 Advanced Creative Writing: Poetry (3)
- 405 Chaucer (3) OR
- 414 Shakespeare: Comedies & Histories (3) OR
- 417 Shakespeare: Tragedies (3)
- 425 Modern British & American Prose (3) OR
- 450 Modern British & American Poetry (3)
- 490 Portfolio (1)

ELECTIVES (15 S.H.)

Electives must be English courses at the 200 level or above including at least 9 s.h. in courses numbered 300 or above.

**B.A. MAJOR - ENGLISH:
FIRST COMBINING MAJOR**

37 S.H.

This major can be taken only in combination with another full major, and students failing to complete a second major must take one of the full (non-combining) majors listed in the catalog if they wish to major in English.

REQUIRED COURSES (19 S.H.)

- 201 Writing about Literature (3)
- Choose one of the following four courses:
 - 210 Advanced Expository Writing (3) OR
 - 310 Story Writing (3) OR
 - 312 Poetry Writing (3) OR
 - 314 Non-fiction Prose Writing (3)
- Choose one of the following two courses:
 - 223 Classical Mythology (3) OR
 - 224 Bible as Literature (3)
- Choose one of the following three courses:
 - 405 Chaucer (3) OR
 - 414 Shakespeare: Comedies & Histories (3) OR
 - 417 Shakespeare: Tragedies (3)
- Choose one of the following two courses:
 - 418 Stylistics (3) OR
 - 420 Introduction to Language Study (3)
- 447 Literary Criticism (3)
- 490 Portfolio

ELECTIVES (18 S.H.)

Electives must be English courses at the 200 level or above including at least 9 s.h. in courses numbered 300 or above.

**B.A. MAJOR - ENGLISH:
SECOND COMBINING MAJOR-
WRITING OPTION**

37 S.H.

This major can be taken only in combination with another full major, and students failing to complete a second major must take one of the full (non-combining) majors listed in the catalog if they wish to major in English.

REQUIRED COURSES (28 S.H.)

- 201 Writing about Literature (3)
- 210 Advanced Expository Writing (3)
- 224 Bible as Literature (3)
- Choose one of the following three courses:
 - 310 Story Writing (3) OR
 - 312 Poetry Writing (3) OR
 - 314 Non-fiction Prose Writing (3)
- 418 Stylistics (3)
- Choose one of the following three courses:
 - 439 Technical Writing (3) OR
 - 410 Advanced Creative Writing: Prose (3) OR
 - 412 Advanced Creative Writing: Poetry (3)
- Choose one of the following three courses:
 - 405 Chaucer (3) OR
 - 414 Shakespeare: Comedies & Histories (3) OR
 - 417 Shakespeare: Tragedies (3)
- Choose one of the following two courses:
 - 425 Modern British & American Prose (3) OR
 - 450 Modern British & American Poetry (3)
- 490 Portfolio (1)

ELECTIVES (9 S.H.)

Electives must be English courses at the 200 level or above including at least 9 s.h. in courses numbered 300 or above.

B.S. MAJOR - COMMUNICATION ARTS AND LITERATURE (Teaching)

62 S.H.

(Approval pending at the time of catalog printing.)

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's section of this catalog.

REQUIRED COURSES (62 S.H.)

English (41 S.H.)

- 201 Writing about Literature (3)
- 210 Advanced Expository Writing (3)

Choose one of the following three courses:

- 223 Mythology (3) OR
- 224 Bible as Literature (3) OR
- 251 Indian Literature (3)

Choose one of the following three courses:

- 310 Story Writing (3) OR
- 312 Poetry Writing (3) OR
- 439 Technical Writing (3)

Choose one of the following two courses:

- 414 Shakespeare: Comedies and Histories (3) OR
- 417 Shakespeare: Tragedies (3)

- 409 British Literature to 1800 (3)

Choose two of the following three courses:

- 411 British and American Romanticism (3)
- 413 Realism and Naturalism (3)
- 415 Modernism and Postmodernism (3)

- 402 Teaching Secondary English (4)
- 328 Stylistics (3)
- 420 Introduction to Language Studies (3)
- 432 European and Non-Western Literature (3)
- 447 Modern Literary Criticism (3)
- 490 Portfolio (1)

Communication Studies (15 S.H.)

- 261 Public Speaking (3)
- 282 Introduction to Communication Studies (3)
- 371 Discussion and Small Group (3)
- 375 Argument and Advocacy (3)
- 493 Teaching and Coaching Oral Communication (3)

Mass Communication (3 S.H.)

- 100 Mass Media and Society (3)

Theater Arts and Dance (3 S.H.)

- 141 Oral Interpretation (3)

Teachers in Communication Arts and Literature are generally recruited to coach/direct one or more of the following activities:

1. forensics/speech
2. debate
3. journalism/newspaper/yearbook
4. literary journal
5. theater
6. radio station
7. related activities

Therefore, all communication arts and literature majors are required to show competency in two of the aforementioned categories.

Students will be required to submit a portfolio in CMST 493 demonstrating their participation in two or more of these categories.

This participation could have been gained in various settings: high school, college, community activities, or work-related assignments.

If students have no experience in at least two of the categories, they will need to acquire that experience during their college careers, either for credit through activities courses in Communication Studies, English, Mass Communications, and Theatre/Dance, OR through volunteer experience.

B.A. MINOR - ENGLISH

24 S.H.

REQUIRED COURSES (18 S.H.)

- 201 Writing about Literature (3)
- 210 Advanced Expository Writing (3)

Choose one of the following three courses:

- 310 Story Writing (3) OR
- 312 Poetry Writing (3) OR
- 314 Non-fiction Prose Writing (3)

Choose one of the following two courses:

- 414 Shakespeare: Comedies & Histories (3) OR
- 417 Shakespeare: Tragedies (3)

Choose one of the following two courses:

- 435 Literature of the Romantic Era (3) OR
- 437 Literature of the Victorian Era (3)

Choose one of the following three courses:

- 351 American Literature I (3) OR
- 352 American Literature II (3) OR
- 353 American Literature III (3)

ELECTIVES (6 S.H.)

Electives must be chosen from ENG 223, ENG 224 or any English course numbered 300 or above.

B.S. MINOR - ENGLISH (Teaching)

24 S.H.

REQUIRED COURSES (24 S.H.)

- 201 Writing about Literature (3)
- 210 Advanced Expository Writing (3)
- 402 Teaching Secondary English (3)
- 418 Stylistics (3)
- 420 Introduction to Language Studies (3)
- 432 European and Non-Western Literature (3)

Choose one of the following two courses:

- 414 Shakespeare: Comedies & Histories (3) OR
- 417 Shakespeare: Tragedies (3)

Choose one of the following three courses:

- 425 Modern British & American Prose (3) OR
- 450 Modern British & American Poetry (3) OR
- 353 American Literature III (3)

B.A. MINOR - ENGLISH: CREATIVE WRITING

24 S.H.

REQUIRED COURSES (18 S.H.)

- 201 Writing about Literature (3)
- 310 Story Writing (3)
- 312 Poetry Writing (3)
- 314 Non-Fiction Prose Writing (3)

Choose one of the following two courses:

- 410 Advanced Creative Writing: Prose (3) OR
- 412 Advanced Creative Writing: Poetry (3)

- 447 Modern Literary Criticism (3)

ELECTIVES (6 S.H.)

Select two courses from among the following:

- 210 Advanced Expository Writing (3)
- 418 Stylistics (3)

Choose one of the following three courses:

- 425 Modern British & American Prose (3) OR
- 450 Modern British & American Poetry (3) OR
- 399 Internship (3)

B.A. MINOR - ENGLISH: WRITING

24 S.H.

REQUIRED COURSES (18 S.H.)

- 201 Writing about Literature (3)

210 Advanced Expository Writing (3)

314 Non-Fiction Prose Writing (3)

418 Stylistics (3)

439 Technical Writing (3)

Choose one of the following two courses:

310 Story Writing (3) OR

312 Poetry Writing (3)

ELECTIVES (6 S.H.)

Electives must be chosen from any English course numbered 300 or above.

English Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicums. The P/NC option is available to non-majors unless otherwise noted.

099 - Introduction to College Writing-3 S.H.

Quarter Course: 108.

Intensive writing practice with special focus on the fundamentals of sentence and paragraph structure. Offered each semester. Grade only. (Credit does not count toward graduation.)

105 - ESL: Listening to Academic Speech-3 S.H.

Intensive practice in understanding lectures. Individualized pronunciation practice and grammar review. Designed to help students function successfully in university classrooms. Grade only. Offered yearly.

106 - ESL: Academic Reading and Writing I-3 S.H.

Intensive advanced drill in reading and writing English. Designed to prepare the non-native speaker for more English courses. Grade only. Offered yearly.

107 - ESL: Academic Reading and Writing II-3 S.H.

A continuation of ENG 106 for students needing more extensive writing practice before advancing to ENG 111. Grade only. Offered yearly.

111 - College Reading and Writing-4 S.H.

Quarter Course: 110 and 115 or 112.

Writing based on reading, interpreting, analyzing, critiquing and synthesizing texts; writing as a means of expression, learning and critical inquiry. Grade only. Offered every semester.

120 - Introduction to Literature-3 S.H.

Intensive reading in selected major forms and themes of literature. Grade only. Offered every semester.

121 - Major British and American Fiction-3 S.H.

An introduction to British and American fiction. Grade only. Offered yearly.

125 - Masterpieces of Short Fiction-3 S.H.

An introduction to the short story and the basic elements of fiction. Grade only. Offered yearly.

131 - Masterpieces of American Literature-3 S.H.

An introduction to significant works by important American writers including various forms, and both the pre-20th century and modern periods. Grade only. Offered yearly.

190 - Critical Reading - 2 S.H.

Improvement of college-level reading through critical examination of and response to academic texts. Application of various critical theories. Offered every two years.

201 - Writing about Literature-3 S.H.

A first course in literary criticism, introducing literary analysis, focusing upon the major genres: fiction, drama and poetry. Offered every semester. Prerequisite: ENG 111.

210 - Advanced Expository Writing-3 S.H.

An advanced course in writing essays, stressing the development of a mature writing style and evaluative abilities. Offered every semester. Prerequisite: ENG 111.

223 - Classical Mythology-3 S.H.

The great myths of Greece and Rome as they appear in classical literature. Offered yearly. Grade only. Prerequisite: ENG 111.

224 - The Bible as Literature-3 S.H.

The literary structure and genres of the Hebrew and Christian scriptures with special attention to the cultures that created them and major translations. Grade only. Offered yearly. Prerequisite: ENG 111.

225 - Topics in Literature - 1-2 S.H.

Intensive study of a selected topic in English and foreign literature in translation. Variable content published in semester schedule.

226 - Topics in Writing - 1-2 S.H.

Topics in Writing focuses on specialized kinds of writing; e.g. the journal. Variable content published in semester schedule.

251 - Indian Literature-3 S.H.

Quarter Course: 151.

A study of the prose, poetry, ritual, artifacts and personal narratives of American Indians in a historical and literary context, and of the relationship of the literature to cultural forces. Grade only. Offered yearly. Prerequisite: ENG 111.

310 - Story Writing-3 S.H.

Study and practice in the techniques and forms of fiction writing. Offered yearly. Prerequisites: ENG 111 and ENG 201.

312 - Poetry Writing-3 S.H.

Study and practice in the techniques and forms of poetry writing with emphasis on contemporary approaches. Offered yearly. Prerequisites: ENG 111 and ENG 201.

314 - Non-fiction Prose Writing-3 S.H.

Quarter Course: New Course.

Study and practice in the techniques and forms of nonfiction prose; reading and writing a variety of essay and nonfiction prose genres. Offered yearly. Prerequisites: ENG 111 and ENG 201.

320 - English Grammar and Usage - 2 S.H.

Study of basic concepts and elements necessary to be helpful in linguistic studies in upper level classes such as ENG 418 and ENG 420. Offered yearly. Prerequisites: ENG 111 and ENG 201.

325 - Works of Literature - 1-2 S.H.

Emphasis upon a single major work of literature, including its creation, socio-historical context, and reception. Name of work announced in schedule.

326 - Figures in Literature - 1-2 S.H.

This course will introduce a major literary figure through selected works, cultural context, and critical reception. Course content will vary according to figure selected.

327 - Genres in Literature - 1-2 S.H.

Intensive readings in selected forms. Note: This course will be offered under a variety of genres, e.g., sonnets, folklore, memoirs, short story. The genre will be announced in semester schedules.

351 - American Literature I-3 S.H.

Quarter Course: 351.

American literature from its beginnings to 1900. Offered every two years. Prerequisites: ENG 111 and ENG 201.

352 - American Literature II-3 S.H.

American literature from 1900 to 1945. Realism, Naturalism, Modernism. Offered every two years. Prerequisites: ENG 111 and ENG 201.

353 - American Literature III-3 S.H.

American literature from 1945 to the present. Specific attention to women and minority writers, focusing on multi-culturalism as a dominant force in late 20th-century literature. Offered every two years. Prerequisites: ENG 111 and ENG 201.

B Supervised, practical experience in a wide variety of fields. Must be arranged well in advance of the registration period. P/NC only.

399 - Internship - 1-12 S.H.

Supervised, practical experienced in a wide variety of fields. Must be arranged well in advance of the registration period. P/NC Only.

402 - Teaching Secondary English-4 S.H.

A study of the goals and methods of the secondary English teacher, and of the content and structure of the secondary English curriculum. Attention to young adult literature. Offered yearly. Prerequisites: ENG 111 and ENG 201.

405 - Chaucer-3 S.H.

The Canterbury Tales. Offered yearly. Prerequisites: ENG 111 and ENG 201.

406 - Studies in 16th-Century Literature-3 S.H.

Non-dramatic literature of the Tudor period. Offered every two years. Prerequisites: ENG 111 and ENG 201.

407 - Studies in 17th-Century Literature-3 S.H.

Non-dramatic literature of the 17th century. Offered every two years. Prerequisites: ENG 111 and ENG 201.

408 - Studies in 18th-Century Literature-3 S.H.

Quarter Course: 445.

Drama, poetry and other prose of the 18th century. Offered every two years. Prerequisites: ENG 111 and ENG 201.

409 - British Literature to 1800 - 3 S.H.

Beowulf to Aphra Behn: A survey course of early English literature designed for teaching majors. The major focus of this course is to provide teaching majors with an understanding of the key genres of English literature from the old English period through the eighteenth century.

410 - Advanced Creative Writing: Prose-3 S.H.

Opportunity to produce a significant body of new fiction or creative nonfiction, and to develop a literary aesthetic and philosophy. Application of various expressive, imitative and experimental writing techniques. Offered every two years. Prerequisites: ENG 111, ENG 201 and ENG 310 or instructor's permission.

411 - British and American Romanticism-3 S.H.

A survey of the major British and American authors and works of earlier 19th century poetry and prose. Intended for B.S. majors in Communication Arts and Literature. Offered every two years.

412 - Advanced Creative Writing: Poetry-3 S.H.

Advanced study of selected poets and poetics; advanced practice in poetry writing. Offered every two years. Prerequisites: ENG 111, ENG 201 and ENG 312 or instructor's permission.

413 - Realism and Naturalism-3 S.H.

A survey of the major British and American authors and works of late 19th and early 20th century poetry and prose. Intended for B.S. majors in Communication Arts and Literature. Offered every two years.

414 - Shakespeare: Comedies and Histories-3 S.H.

Study of Shakespeare's major comedies and history plays. Offered yearly. Prerequisites: ENG 111 and ENG 201.

415 - Modernism and Postmodernism-3 S.H.

A survey of the major British and American authors and works from the early 20th century to the present. Intended for B.S. majors in Communication Arts and Literature. Offered every two years.

417 - Shakespeare: Tragedies-3 S.H.

Study of Shakespeare's major tragedies. Offered yearly. Prerequisites: ENG 111 and ENG 201.

418 - Stylistics-3 S.H.

The structure of modern English as described by traditional grammarians and modern linguists; application of linguistics to the analysis of style. Offered yearly. Prerequisites: ENG 111 and ENG 201.

420 - Introduction to Language Study-3 S.H.

An introduction to the study of language systems and their relationships to the cultures in which they function. Offered yearly. Prerequisites: ENG 111 and ENG 201.

424 - Modern Drama-3 S.H.

An examination of Western drama from Ibsen to the present with special attention to female and minority dramatists. Offered every

two years. Prerequisites: ENG 111 and ENG 201.

425 - Modern British and American Prose-3 S.H.

Selected works of fiction and nonfiction prose with special attention to characteristics of the period and genre. Offered every two years. Prerequisites: ENG 111 and ENG 201.

432 - European and Non-Western Literature-3 S.H.

An introduction to representative masterpieces of European and non-Western literature. Offered yearly. Prerequisites: ENG 111 and ENG 201.

435 - Literature of the Romantic Era-3 S.H.

The forms and themes of "Romantic" literary culture with an introduction to the cultural and historical backgrounds of the Romantic era; emphasis on British Romantic writers, but some attention to Romanticism as a European, American and continuing cultural force. Offered every two years. Prerequisite: ENG 111 and ENG 201.

437 - Literature of the Victorian Era-3 S.H.

An examination of the major writers of the Victorian era, including some novelists, with special emphasis on Victorian poetry. Offered every two years. Prerequisites: ENG 111 and ENG 201.

439 - Technical Writing-3 S.H.

A course in the theory and practice of technical writing. Offered yearly. Prerequisites: ENG 111 (and ENG 201 for English majors and minors).

447 - Literary Criticism: Theory and Practice-3 S.H.

A study of modern critical theories and their application in original critical evaluations. Offered yearly. Prerequisites: ENG 111 and ENG 201.

450 - Modern British and American Poetry-3 S.H.

Development of British and American poetry from the late 19th century to about 1950; close analytical reading of selected representative poems with attention given to women and minority poets. Offered every two years. Prerequisites: ENG 111 and ENG 201.

461 - Independent Studies-1-3 S.H.

Independent studies determined by the needs of the individual student. Offered by previous arrangement only. Offered every semester. Prerequisites: ENG 111 and ENG 201.

490 - Portfolio-1 S.H.

Students, in consultation with their advisor, compile (on department computer) the portfolio materials including a vita, a critical introduction, and selected papers and projects from their former coursework. Required of all English majors as a capstone project in the senior year.

Humanities 140 - Approaches to Film-3 S.H.

A general introduction to the arts of the film with focus on the non-technical aspects of the art. Grade only. Offered every semester.

ENVIRONMENTAL SCIENCE

ENVIRONMENTAL SCIENCE STEERING COMMITTEE

Biology

Pasteur Hall, Room 215, (507) 457-5165
Bates, Mundahl

Chemistry

Pasteur Hall, Room 312 (507)457-5290
Engen, Franz

Geoscience

Pasteur Hall, Room 114 (507) 457-5260
Meyers, Summa

Deterioration of earth's ecosystems has stimulated considerable interest in environmental education. Many people recognize that the processes of global warming and climate change, ozone depletion, soil erosion, water and air pollution, accumulation of toxic wastes, species extinction, and a number of other environmental problems jeopardize both the health and prosperity of human society. The broad nature of such problems, affecting all major Earth systems (atmosphere, biosphere, hydrosphere, and lithosphere) requires an interdisciplinary approach to their solution. In particular, solution of these problems requires a strong, interdisciplinary background in the sciences and a fundamental understanding of societal implications, public policy, and economic factors involved in working with environmental issues.

The Environmental Science Program is an interdisciplinary program sponsored by the biology, chemistry and geoscience departments. This broadly based program is composed of a common set of introductory courses, an in-depth set of option courses in either the biology, chemistry, or geoscience areas, and a capstone experience which involves an individual research problem and a group seminar course. Depending on the set of in-depth option courses chosen for their program, students graduate with either a B.S. Biology-Environmental Science Option, a B.S. Chemistry-Environmental Science Option, or a B.S. Geoscience-Environmental Science Option. Each option is intended to prepare students to be well versed in science

issues as related to the environment. Graduates of these options will be prepared for graduate study or entry-level work in fields such as environmental science, environmental analysis, environmental and public policy, land-use planning, natural resource management, environmental education, and pollution control.

The environmental science programs are designed to provide students with a basic understanding of the environmental challenges that face modern society and to provide students with the skills necessary to address these challenges through a successful career in an environmental science field. The common set of introductory courses provides students with the strong, interdisciplinary science background necessary to understand, critically evaluate, and mitigate environmental problems. While pursuing the common set of introductory courses, students have additional time to choose the option portion of their programs and the department in which they will declare their major. The option portion of the program allows students to develop an in-depth understanding of an area of environmental science of their choice. The capstone research experience fosters independent thought and hones problem-solving skills while integrating the common set of environmental courses and the option area studies with a real-life, environmental problem. The capstone seminar course sharpens communication skills and encourages interactions between students from different majors and faculty from different environmental science areas by providing a forum for discussing, analyzing, and debating environmental issues and topics related to any branch of environmental science. At all times, students are encouraged to maintain a broad perspective and to augment their in-depth study with an understanding of the connections between public policy, economics, law, and the adjustment to social needs which can result in the destruction or the preservation of the environment.

ENVIRONMENTAL SCIENCE CORE REQUIREMENTS FOR ALL OPTIONS

48-50 S.H.

- * BIOL 241 Principles of Biology I (4)
- * BIOL 242 Principles of Biology II (4)
- BIOL 312 General Ecology (3)
- BIOL 313 General Ecology Laboratory (1)
- * CHEM 212 Principles of Chemistry I (4)
- * CHEM 213 Principles of Chemistry II (4)
- CHEM 320 Environmental Chemistry (4)
- * GEOS 120 Dynamic Earth (4)
- * GEOS 130 Earth and Life Through Time (4)
- GEOS 240 Hydrogeology (4)

Two of the following three courses:

- BUSA 451 Environmental Law (3)
- ECON 315 Environmental and Natural Resource Economics (3)
- POLS 340 Environmental Policy (3)

One of the following courses NOT within the major discipline of the elected option:

- BIOL 315 Environmental Biology (3)
- BIOL 335 Plant Ecology (4)
- BIOL 360 Entomology (4)
- BIOL 420 Limnology (4)
- CHEM 425 Analytical Chemistry I (4)
- CHEM 436 Topics in Environmental Chemistry (3)
- GEOS 225 Environmental Geoscience (3)
- GEOS 310 Non-Renewable Natural Resources (3)
- GEOS 315 Surficial Processes and Soils (4)

GEOS 420 Applied Hydrogeology (4)

A research capstone course from the major discipline of the elected option:

- BIOL 499 Student Research (3)
- CHEM 430 Individual Problems in Chemistry (2-3)
- GEOS 400 Directed Research in Geoscience (2-3)

A seminar capstone course from the major discipline of the elected option:

- BIOL 495 Seminar in Biology - Environmental Science (1)
- CHEM 475 Seminar in Chemistry - Environmental Science (1)
- GEOS 475 Geoscience Seminar - Environmental Science (1)

* Course may be used to satisfy certain General Education requirements.

In addition to these common courses, a student enrolled in Environmental Science will choose an option within a major discipline and complete an in-depth program of study in that department. For requirements in each option, please consult the Biology, Chemistry, and/or Geoscience programs in the appropriate catalog section, check the Environmental Science website listed above, or contact a member of the Environmental Science Steering Committee listed above. Additional option requirements in Biology total 45-47 s.h.; additional option requirements in Chemistry total 44 s.h.; additional option requirements in Geoscience total 44-46 s.h.

FOREIGN LANGUAGES

Somsen Hall, Room 319, (507) 457-5165

Ramos (Chairperson), German-Spanish; Frisk, French-Spanish; Juan-Saura, Spanish-French; Mazur, German-French-Spanish; Tenenbaum, French-Spanish

Faculty

Timothy Frisk, Associate Professor; B.A., M.A., Ph.D., University of Minnesota-Twin Cities; 1990 -

Mercedes Juan-Saura, Assistant Professor; B.A., M.A., University of Montreal; Ph.D., University of Quebec; 1995 -

Ronald M. Mazur, Professor; B.A., University of Detroit; M.A., Ph.D., University of Michigan; 1978 -

Lillian Ramos, Associate Professor; B.A. Seattle University; M.A. University of Washington; Ph.D. University of Washington, 1992 -

Rosine Tenenbaum, Professor; B.A., M.A., University of Paris-Sorbonne; Ph.D., University of North Carolina; 1990 -

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, government 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
- Bachelor of Teaching Degrees

The Foreign Language Department is authorized to recommend graduates for licensure in French, German and Spanish (major and minor). All coursework for the three degrees is available on campus. Language courses No. 101, 102, 201, 202 are offered once a year. All other courses are offered every two years. For this reason, majors and minors in foreign languages are expected to register for the "specialized study" courses when they are offered. Education courses and student teaching are pro-

vided by the WSU Education Department. Arranged classes are discouraged and will be offered only under the most exceptional circumstances and require approval of the entire foreign language department faculty. Independent Studies courses are not offered.

Placement

All students with prior study or knowledge of a foreign language are urged to take a placement examination to determine the correct level of coursework to begin with at WSU. Consult the Department chairperson for details.

Credit for Previous Language Study

By earning a grade of "A" or "B" in LANG 102, LANG 201, LANG 202, students may obtain credits retroactively for LANG 101 and/or sequel courses that were skipped (\$5 fee per credit). The grade will be a "P" or pass.

Study Abroad

WSU students who wish to immerse themselves in a foreign culture and language for one or more semesters have several options available to them. For specific information, please contact the Study Abroad Office in Lourdes 152 or consult the Study Abroad section in the catalog. Students who wish to receive University credit for participation in a studies abroad program must have prior approval from the Foreign Language Department.

Pass/No Credit Courses

Elementary and intermediate courses (LANG 101, LANG 102, LANG 201 and LANG 202) may be taken for Pass/No Credit.

Grade Point Average Requirements

1. Students must have a cumulative GPA of 2.0 to graduate with a foreign language major or minor.
2. In addition, students must have a 2.0 average in the courses taken for the major or minor.
3. Students must have a cumulative GPA of 2.75 to be admitted to teacher education.

B.A. MAJOR - FRENCH

32 S.H. (Minor Required)

LANGUAGE SKILLS FOR MAJORS AND MINORS (8 S.H.)

- 201 Intermediate French I (4)
- 202 Intermediate French II (4)

NOTE: You may obtain credit for 201 or 202 by (1) enrolling in the highest level you qualify for and taking the course for a letter grade. If you receive a final grade of "A" or "B," you may apply for retroactive credit for the lower-level classes you did not enroll in. You will receive a "pass" after completing the appropriate forms and paying the fee; (2) testing out of any of these courses after completing the appropriate forms, paying the fee and taking the final examination for the course for a letter grade or P/NC basis.

SPECIALIZED STUDY (24 S.H.)

- 204 Special Topics in French Literature (2)
- 205 Special Topics in French Culture (2)
- 301 French Composition (4)
- 302 French Civilization and Culture (4)
- 401 Phonetics and Pronunciation (3)
- 402 French Literature I (3)
- 403 French Literature II (3)
- 404 French Literature III (3)

B.S. MAJOR - FRENCH (Teaching)

36 S.H. (Minor Required)

LANGUAGE SKILLS (8 S.H.)

(201 and 202)

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.

SPECIALIZED STUDY (28 S.H.)

- 204 Special Topics in French Literature (2)
- 205 Special Topics in French Culture (2)
- 301 French Composition (4)
- 302 French Civilization and Culture (4)
- 401 Phonetics and Pronunciation (3)
- 402 French Literature I (3)
- 403 French Literature II (3)
- 404 French Literature III (3)

405 Methods of Teaching a Modern Foreign Language (4)

See Education Department listings for Education Sequence and Student Teaching.

B.A. MINOR - FRENCH

24 S.H.

LANGUAGE SKILLS (8 S.H.)

(201 and 202)

SPECIALIZED STUDY (16 S.H.)

Choose one of the following two courses:

- 204 Special Topics in French Literature (2) OR
- 205 Special Topics in French Culture (2)
- 301 French Composition (4)
- 302 French Civilization and Culture (4)

Choose one of the following two courses:

- 402 French Literature I (3) OR
- 403 French Literature II (3)
- 404 French Literature III (3)

B.S. MINOR - FRENCH (Teaching)

28 S.H.

LANGUAGE SKILLS (8 S.H.)

(201 and 202)

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.

SPECIALIZED STUDY (20 S.H.)

Choose one of the following two courses:

- 204 Special Topics in French Literature (2) OR
- 205 Special Topics in French Culture (2)
- 301 French Composition (4)
- 302 French Civilization and Culture (4)

Choose one of the following two courses:

- 402 French Literature I (3) OR
- 403 French Literature II (3)
- 404 French Literature III (3)
- 405 Methods of Teaching a Modern Foreign Language (4)

See Education Department listings for Education Sequence and Student Teaching.

B.A. MAJOR - GERMAN

32 S.H. (Minor Required)

LANGUAGE SKILLS (8 S.H.)

- 201 Intermediate German I (4)
- 202 Intermediate German II (4)

NOTE: You may obtain credit for 201 or 202 by (1) enrolling in the highest level you qualify for and taking the course for a letter grade. If you receive a final grade of "A" or "B," you may apply for retroactive credit for the lower-level classes you did not enroll in. You will receive a "pass" after completing the appropriate forms and paying the fee; (2) testing out of any of these courses after completing the appropriate forms, paying the fee and taking the final examination for the course for a letter or P/NC.

SPECIALIZED STUDY (24 S.H.)

- 204 Special Topics: German Literature (2)
- 205 Special Topics: German Culture and Language (2)
- 301 Advanced Reading and Structural Analysis (3)
- 302 German Composition and Conversation (4)
- 303 German Culture and Civilization (4)
- 401 Early Medieval to Baroque Literature (3)
- 402 Eighteenth and Nineteenth Century Literature (3)
- 403 Twentieth Century Literature (3)

B.S. MAJOR - GERMAN (Teaching)

36 S.H. (Minor Required)

LANGUAGE SKILLS (8 S.H.)

(201 and 202)

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.

SPECIALIZED STUDY (28 S.H.)

- 204 Special Topics: German Literature (2)
- 205 Special Topics: German Culture and Language (2)
- 301 Advanced Reading and Structural Analysis (3)
- 302 German Composition and Conversation (4)
- 303 German Culture and Civilization (4)
- 401 Early Medieval to Baroque Literature (3)
- 402 Eighteenth and Nineteenth Century Literature (3)
- 403 Twentieth Century Literature (3)
- 405 Methods of Teaching a Modern Foreign Language (4)

See Education Department listings for Education Sequence and Student Teaching.

B.A. MINOR - GERMAN

24 S.H.

LANGUAGE SKILLS (8 S.H.)

(201 and 202)

SPECIALIZED STUDY (16 S.H.)

Choose one of the following two courses:

- 204 Special Topics: German Literature (2) OR
- 205 Special Topics: German Culture and Language (2)
- 301 Advanced Reading and Structural Analysis (3)
- 302 German Composition and Conversation (4)
- 303 German Culture and Civilization (4)

Choose one of the following three courses:

- 401 Early Medieval to Baroque Literature (3) OR
- 402 Eighteenth and Nineteenth Century Literature (3) OR
- 403 Twentieth Century Literature (3)

B.S. MINOR - GERMAN (Teaching)

28 S.H.

LANGUAGE SKILLS (8 S.H.)

(201 and 202)

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.

SPECIALIZED STUDY (20 S.H.)

Choose one of the following two courses:

- 204 Special Topics: German Literature (2) OR
- 205 Special Topics: German Culture and Language (2)
- 301 Advanced Reading and Structural Analysis (3)
- 302 German Composition and Conversation (4)
- 303 German Culture and Civilization (4)

Choose one of the following three courses:

- 401 Early Medieval to Baroque Literature (3) OR
- 402 Eighteenth and Nineteenth Century Literature (3) OR
- 403 Twentieth Century Literature (3)
- 405 Methods of Teaching a Modern Foreign Language (4)

See Education Department listings for Education Sequence and Student Teaching.

B.A. MAJOR - SPANISH

32 S.H. (Minor Required)

LANGUAGE SKILLS (8 S.H.)

- 201 Intermediate Spanish I (4)
- 202 Intermediate Spanish II (4)

NOTE: You may obtain credit for 201 or 202 by (1) enrolling in the highest level you qualify for and taking the course for a letter grade. If you receive a final grade of "A" or "B," you may apply for retroactive credit for the lower-level classes you did not enroll in. You will receive a "pass" after completing the appropriate forms and paying the fee; (2) testing out of any of these courses after completing the appropriate forms, paying the fee and taking the final examination for the course for a letter grade or P/NC.

SPECIALIZED STUDY (24 S.H.)

- 204 Special Topics in Hispanic Literature (2)
- 300 Spanish Linguistics (2)
- 301 Spanish Composition and Conversation (4)
- 302 The Culture of Spain (3)
- 303 The Culture of Latin America (3)
- 401 Spanish Literature I (3)
- 402 Spanish Literature II (3)
- 403 Latin American Literature (4)

B.S. MAJOR - SPANISH (Teaching)

36 S.H. (Minor Required)

LANGUAGE SKILLS (8 S.H.)

(201 and 202)

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.

SPECIALIZED STUDY (28 S.H.)

- 204 Special Topics in Hispanic Literature (2)
- 300 Spanish Linguistics (2)
- 301 Spanish Composition and Conversation (4)
- 302 The Culture of Spain (3)
- 303 The Culture of Latin America (3)
- 401 Spanish Literature I (3)
- 402 Spanish Literature II (3)
- 403 Latin American Literature (4)
- 405 Methods of Teaching a Modern Foreign Language (4)

See Education Department listings for Education Sequence and Student Teaching.

B.A. MINOR - SPANISH

24 S.H.

LANGUAGE SKILLS (8 S.H.)

(201 and 202)

SPECIALIZED STUDY (16 S.H.)

Choose one of the following two courses:

- 204 Special Topics in Hispanic Literature (2) OR
- 300 Spanish Linguistics (2)
- 301 Spanish Composition and Conversation (4)

Choose one of the following two courses:

- 302 The Culture of Spain (3) OR
- 303 The Culture of Latin America (3)

Choose one of the following two courses:

- 401 Spanish Literature I (3) OR
- 402 Spanish Literature II (3)
- 403 Latin American Literature (4)

B.S. MINOR - SPANISH (Teaching)

28 S.H.

LANGUAGE SKILLS (8 S.H.)

(201 and 202)

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.

SPECIALIZED STUDY (20 S.H.)

Choose one of the following two courses:

- 204 Special Topics in Hispanic Literature (2) OR
- 300 Spanish Linguistics (2)
- 301 Spanish Composition and Conversation (4)

Choose one of the following two courses:

- 302 The Culture of Spain (3) OR
- 303 The Culture of Latin America (3)

Choose one of the following four courses:

- 401 Spanish Literature I (3)
- 402 Spanish Literature II (3)
- 403 Latin American Literature (4)
- 405 Methods of Teaching a Modern Foreign Language (4)

See Education Department listings for Education Sequence and Student Teaching.

Foreign Languages Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicums. The P/NC option is available to non-majors unless otherwise noted.

GENERAL

405 - Methods of Teaching a Modern Foreign Language-4 S.H.
Quarter Course: 430.

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. Prerequisite: LANG 202 or equivalent. Offered every two years.

FRENCH

101 - Elementary French I-4 S.H.

Quarter Course: 110 and 111.

Introductory French for students with little or no prior French training. Instruction in speaking, listening, reading and writing through classroom drills and language lab work. Prerequisite: none. Offered yearly.

102 - Elementary French II-4 S.H.

Quarter Course: 111 and 112.

Continuation of 101. Prerequisites: 101 or 1-2 years of high school French or equivalent. Offered yearly.

201 - Intermediate French I-4 S.H.

Quarter Course: 213 and 214.

Further development of communication skills. In-depth study of grammar. Selected readings in French. Prerequisite: 102 or equivalent of three years of high school French. Offered yearly.

202 - Intermediate French II-4 S.H.

Quarter Course: 214 and 215.

Continuation of LANG 201. 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. Prerequisite: 201 or equivalent to 4-5 years of high school French. Offered yearly.

204 - Special Topics in French Literature-2 S.H.

Quarter Course: 324.

Directed readings of French contemporary writers. Focusing particularly on African writers and French writers outside of France (Canada and Antilles). Prerequisite: 202 or equivalent. Offered every two years.

205 - Special Topics in French Culture-2 S.H.

Quarter Course: 303.

Study of contemporary issues in the French media, particularly cinema. Prerequisite: 202 or equivalent. Offered every two years.

301 - French Composition-4 S.H.

Quarter Course: 332 and 333.

This course reinforces skills in written French through translation of a wide variety of texts taken from various fields such as business and literature. The writing of poems, essays and articles in French is practiced in order to reinforce and refine writing skills. Prerequisite: 202 or equivalent. Offered every two years.

302 - French Civilization and Culture-4 S.H.

Quarter Course: 322.

The unfolding of French culture and civilization from the Lascaux Caves to French Rap music. Topics include architecture, plastic arts, literary movements and contemporary French popular culture. The course is taught in French with texts in French. Students present reports on selected topics in French. Prerequisite: 202 or equivalent. Offered every two years.

401 - Phonetics and Pronunciation-3 S.H.

Quarter Course: 420.

Each student perfects his/her pronunciation through class and language laboratory exercises. The class relies on pronunciation tapes to teach the proper French accent. The sounds are studied so that one can describe and teach them to students. Some pronunciation rules are also mastered: rule of three consonants, silent e, e before yod, etc. Students read articles from the French press in order to practice correct pronunciation. Prerequisite: 202 or equivalent. Offered every two years.

402 - French Literature I-3 S.H.

Quarter Course: 425.

Middle Ages, Renaissance French Literature. The course is taught in French. The French Explication De Texte type of critical analysis is taught. Writings such as the Song of Roland, The Romance of the Rose, Villon's Poems, Rabelais' Gargantua, Montaigne's Essays, and the Pleiade are studied. Prerequisite: 202 or equivalent. Offered every two years.

403 - French Literature II-3 S.H.

Quarter Course: 426.

Seventeenth and 18th-Century French literature. The course is taught in French. Writers such as Corneille, Moliere, Racine, Marivaux, Voltaire, Diderot, Rousseau, Beaumarchais are studied. Prerequisite: 202 or equivalent. Offered every two years.

404 - French Literature III-3 S.H.

Quarter Course: 427 and 428.

Nineteenth and 20th-Century French literature. Romanticism, the Parnasse, Symbolism and Naturalism, as well as Surrealism, Existentialism, Contemporary writers are studied. Prerequisite: 202 or equivalent. Offered every two years.

GERMAN

101 - Elementary German I-4 S.H.

Quarter Course: 110 and 111.

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. Offered yearly.

102 - Elementary German II-4 S.H.

Quarter Course: 111 and 112.

Continuation of 101. Prerequisite: 101 or 2 years of high school German or equivalent. Offered yearly.

201 - Intermediate German I-4 S.H.

Quarter Course: 213.

Further development of communication skills. Study of grammar essential to skills. Selected readings in German. Prerequisite: 102 or equivalent of three years of high school German. Offered yearly.

202 - Intermediate German II-4 S.H.

Quarter Course: 214.

Continuation of 201. Further development of all the skills essential for communication. Further development of understanding written

and spoken German. Practice in translation and practice in writing accentuated. Prerequisite: 201 or equivalent of 5 years of middle school/high school German. Offered yearly.

204 - Special Topics: German Literature-2 S.H.

Quarter Course: 450.

The course focuses on an individual author, a literary period/ movement or a special literary category/genre. Prerequisite: 202 or equivalent. Offered every two years.

205 - Special Topics: German Culture and Language-2 S.H.

Quarter Course: 335.

This course deals with such topics as modern cultural developments in the German-speaking world, modern usage and themes in the German-language media, the development of the German language into its modern form, or the application of the German language to a specific professional field. Prerequisite: 202 or equivalent. Offered every two years.

301 - Advance Reading and Structural Analysis-3 S.H.

Quarter Course: 320.

Advanced study and analysis of the German language. The course includes a discussion of advanced German grammar (with exercises), the development of effective reading strategies and an introduction to basic linguistic concepts. Prerequisite: 202 or equivalent. Offered every two years.

302 - German Composition and Conversation-4 S.H.

Quarter Course: 332 and 333.

The practice of advanced language skills through guided conversation and composition. Prerequisite: 202 or equivalent. Offered every two years.

303 - German Civilization and Culture-4 S.H.

Quarter Course: 322 and 335.

The evolution of German culture from its beginnings to the present, including analysis of historical, literary and artistic movements. Prerequisite: 202 or equivalent. Offered every two years.

401 - Medieval to Baroque Literature-3 S. H.

Quarter Course: 410 and 370.

A survey of representative works by major authors in various genres from the beginnings of Old High German literature (8th century) to the literary Baroque (17th century). Classwork focuses on the close reading and critical discussion of texts in their literary and cultural contexts. Prerequisite: 202 or equivalent. Offered every two years.

402 - 18th- and 19th-Century Literature-3 S.H.

Quarter Course: 411.

A survey of representative works by major authors in various genres from the Enlightenment through Symbolism and Naturalism (late 19th century). Class work focuses on the close reading and critical discussion of texts in their literary and cultural contexts. Prerequisite: 202 or equivalent. Offered every two years.

403 - 20th- Century Literature-3 S.H.

Quarter Course: 325.

A survey of representative works by major authors in various genres from the turn of the 20th century to the present. Class work focuses on the close reading and critical discussion of texts in their literary and cultural contexts. Prerequisite: 202 or equivalent. Offered every two years.

SPANISH

101 - Elementary Spanish I-4 S.H.

Quarter Course: 110 and 111.

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. Offered yearly.

102 - Elementary Spanish II-4 S.H.

Quarter Course: 111 and 112.

Continuation of 101. Prerequisite: 101 or equivalent. Offered yearly.

201 - Intermediate Spanish I-4 S.H.

Quarter Course: 213 and 214.

Further development of communication skills. Study of grammar essential to skills. Selected readings in Spanish. Prerequisite: 102 or equivalent. Offered yearly.

202 - Intermediate Spanish II-4 S.H.

Quarter Course: 214 and 215.

Continuation of 201. Further development of skills essential for communication. Study of grammar and syntax. Additional practice in reading and writing. Prerequisite: 201 or equivalent. Offered yearly.

204 - Special Topics in Hispanic Literature-2 S.H.

Quarter Course: 435.

Directed readings in Hispanic literature. Prerequisite: 202 or equivalent. Offered every two years.

300 - Spanish Linguistics and Phonetics-2 S.H.

Quarter Course: 320.

Practice in all the sounds of the language with observations on its development from Latin. Exploration of the grammatical structures of Spanish. Prerequisite: 202 or equivalent. Offered every two years.

301 - Spanish Composition and Conversation-4 S.H.

Quarter Course: 332 and 333.

The emphasis is on class discussion and the development of critical thinking. Readings to be included are short stories by modern and classical authors. Overview of semantics and stylistics. Prerequisite: 202 or equivalent. Offered every two years.

302 - The Culture of Spain-3 S.H.

Quarter Course: 350.

This course is taught in Spanish and focuses on the successive phases in the development of the culture of Spain. The development of Spanish art, architecture, music and lifestyle are studied as well as the different characteristics of the individual regions of Spain. Prerequisite: 202 or equivalent. Offered every two years.

303 - The Culture of Latin America-3 S.H.

Quarter Course: 351.

This course is taught in Spanish and focuses on the countries of Central and South America, a study of the pre-Columbian cultures as well as their development after the Spanish colonization: their art, their traditions and their present lifestyle and customs. Prerequisite: 202 or equivalent. Offered every two years.

401 - Spanish Peninsular Literature I-3 S.H.

Quarter Course: 360 and 425.

The course is taught in Spanish. Focuses on the study of early Peninsular Spanish literature: epic poetry, novel, theater, the renaissance, baroque literature. Prerequisite: 202 or equivalent. Offered every two years.

402 - Spanish Peninsular Literature II-3 S.H.

Quarter Course: 425 and 426.

The course is taught in Spanish. It covers Peninsular literature of the Age of Enlightenment, Romantic period, generation of 98, generation of 27, the literature of the Civil War and the post-Civil War as well as the contemporary literary production. Prerequisite: 202 or equivalent. Offered every two years.

403 - Latin American Literature-4 S.H.

Quarter Courses: 436.

A panorama of Latin American literature from pre-colonial to contemporary literature. This course covers Pre-Hispanic writings: Nahautl, maya, quechua, the early travel accounts from de New World (Los Cronistas), Colonial Literature, Neoclassicism, Romanticism, and the transition of the guagho Epic form the nineteenth to the twentieth century. Modernism: Poetry: Ruben Dario and Jose Marti. Criollismo. Post-Modernism Poetry. "Magic Realism." The "Boom" of Latin America narration: Gabriel Garcia Marquez, Carlos Fuentes, Cortazar, Vargas Llosaa, etc. The Theater. Essay writers. Prerequisite: 202 or equivalent. Offered every two years.

GEOGRAPHY

Minne Hall, Room 228, (507) 457-5429
Gerlach

Faculty

Jerry Gerlach, Professor; B.A., M.A., University of Nebraska; Ph.D., University of Oklahoma; 1988-

The study of geography affords students 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

24 S.H.

REQUIRED COURSES (12 S.H.)

- 211 Economic Geography (3)
- * 212 Physical Geography (3)
- * 213 Cultural Geography (3)
- 450 Cartography (3)

ELECTIVES (12 S.H.)

6 credits must be from courses 300-level or above. GEOG 110 does not apply to the minor.

NOTE: A grade of "C" or better is required for any course used to complete the requirements of the minor. Four courses (12 s.h.) must be taken at WSU.

* Course may be used to satisfy certain General Education requirement

Geography Course Descriptions

All courses are offered on a Grade Only basis.

110 - World Regional Geography-3 S.H.

Quarter Course: 110.

A survey of physical and cultural aspects of world regions including landforms; climate; levels of economic development; cultural diffusion; attitudes toward the land, the social structure and values.

Grade only. Offered yearly.

211 - Economic Geography-3 S.H.

Quarter Course: 211.

A systematic study of the geographic bases of human 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. Grade only. Offered yearly.

212 - Physical Geography-3 S.H.

Quarter Course: 212.

An introduction to the significance and areal distribution of various physical elements of our environment with emphasis on climate, landforms, gradational work of streams and glaciation. Grade only. Offered yearly.

213 - Cultural Geography-3 S.H.

Quarter Course: 213.

An introduction to the significance and areal distribution of various cultural elements of our environment with emphasis on population, cultural origins, language, religion and agriculture. Grade only. Offered yearly.

223 - Geography of the Orient-3 S.H.

Quarter Course: 223.

A study of the physical and cultural features of the Far East. Grade only. Offered every other year.

224 - Geography of Africa-3 S.H.

Quarter Course: 224.

Natural setting, distribution of people, important occupations and problems of Africa's future development. Grade only. Offered every other year.

225 - Geography of Latin America-3 S.H.

Quarter Course: 225.

A study of the complex cultural, racial, political, demographic and economic patterns which have developed in Latin American since

1492 - within its physical geographic setting. Grade only. Offered yearly.

233 - Geography of the Middle East-3 S.H.

Quarter Course: 233.

Environmental setting, population distribution, important occupations, crossroads, functions and problems of development. Grade only. Offered every other year.

270 - Introduction to the Geography of Tourism-3 S.H.

Quarter Course: 270.

An introduction to the study of the geography of tourism. This course studies the origin, development and spread of tourism. Particular emphasis is placed on the location of tourist areas in the U.S. Grade only. Offered every other year.

320 - Geography of the United States-3 S.H.

Quarter Course: 320.

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. Grade only. Offered yearly.

326 - Geography of Europe-3 S.H.

Quarter Course: 326.

A study of nations, regions and economies of Europe with special attention to current problem areas. Grade only. Offered every other year.

332 - Geography of Canada-3 S.H.

Quarter Course: 332.

A detailed examination of Canada's geography with special emphasis on developmental problems. Grade only. Offered every other year.

349 - Maps and Air Photos-3 S.H.

Quarter Course: 349.

A study of the elements of map scale and projection, and the use of air photos in map preparation. Practice in reading and interpreting various kinds and series of maps. Grade only. Offered every other year.

370 - The Geography of Tourism: Advanced Study-3 S.H.

Quarter Course: 370.

An in-depth study of tourist locations worldwide. Detailed examination and classification of tourist types and locations is emphasized. Grade only. Offered every other year.

450 - Cartography-3 S.H.

Quarter Course: 450.

Theory and design of map-making skills using a variety of techniques in the production and reproduction of qualitative and quantitative maps. Grade only. Offered every other year.

455 - Remote Sensing-3 S.H.

Quarter Course: 455G.

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: instructor's permission. Grade only. Offered every other year.

490 - Independent Reading in Geography-1-3 S.H.

Quarter Course: 490G.

A course designed to aid those planning to attend graduate school or who have a special area of interest which the desire to pursue beyond formal course limits. Work is undertaken with an instructor chosen by the student. Prerequisite: instructor's permission. Grade only. Offered by arrangement.

GEOSCIENCE

Pasteur Hall, Room 114, (507) 457-5260
Meyers (Chairperson), Donovan, Jannik (adjunct), Summa

Visit the Geoscience Department's website at:
<http://www.winona.msus.edu/Geology>

Faculty

John F. Donovan, Professor; B.Sc., St. Francis Xavier University; M.S., University of Iowa; Ph.D., Cornell University; 1968 -
Nancy O. Jannik, Dean, College of Science and Engineering; B.S., College of William & Mary; M.S., Rutgers University;
Ph.D., New Mexico Institute of Mining & Technology; 1986 -
James H. Meyers, Professor; B.A., Franklin & Marshall College, Ph.D., Indiana University; 1980 -
Catherine L. Summa, Assistant Professor; B.A., Wellesley College; Ph.D., Massachusetts Institute of Technology; 1996 -

Geoscience is the study of the earth - its atmosphere, hydrosphere, internal composition, structure, processes and history. Geoscientists study the earth at present, using the outdoors as their laboratory, where studies of rocks, landforms and earth processes enable geologists to decipher Earth's history, and to predict its future. The earth is dynamic, and processes that act to shape the earth are complex and inter-related. Thus, all courses within the Department are related to one another in unraveling the complex picture of the planet on which we live.

The Department offers a range of introductory courses to expose students to the wide variety of processes active on Earth, to develop an understanding of interactions between humans and the environment, and to help build an appreciation for the place of people in Earth's long history. The Department offers an Honors Program for qualified students; research and internship opportunities also are available. Alumni of the Department have established an endowed fund, making academic scholarships available to qualified students.

Professions in the geological sciences are ideal for those who possess curiosity about natural processes, scientific talent, and a love of the outdoors. The Department of Geoscience at WSU 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. Three options within the major allow students flexibility to choose studies preparing them for career options that best suit their interests, from classical geology to environmental geosciences to resource management. Field excursions and practical laboratory experiences are integral to most courses. Majors pursue studies enriched with the closely related disciplines of mathematics, chemistry, physics, and biology. Students preparing for teaching also take courses in astronomy, meteorology, oceanography, and education.

Career Opportunities

Employment opportunities in the geosciences described by the Geological Society of America for the new millennium are bright. Federal and state regulatory legislation regarding waste disposal and its relationship to clean water and clean air has greatly increased employment opportunities for geoscientists. 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 bachelor's and master's degrees, but the majority of employers prefer graduates with the M.S. Hiring in the petroleum industry has increased. 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 geoscientists in higher education. Now is an excellent time to begin preparation for such a career, and interested students should plan to attain a Ph.D. degree. Earth Science teachers are needed in most regions of the U.S. according to national teacher-employment surveys. Earth Science teachers are employed in secondary schools where Earth Science is usually a required component of the science curriculum.

Graduate School Preparation

The Geoscience Department has an excellent record of placement of graduates into master's and Ph.D. programs, and most have received financial support. **If you are considering graduate studies, you must supplement your curriculum to include a minimum of a full year of chemistry, physics and calculus. You should also take a summer field course in addition to your required degree program.**

Advising

All geoscience and earth science majors must have an advisor from the Department of Geoscience. Students must keep in mind when planning schedules that many upper-division courses are offered on an every-other-year basis. Meet with your advisor on a regular basis to do long-range program planning for timely graduation.

Degree Options *Geoscience Major*

Geology Option: Prepares students for graduate study or employment in classic geologic sub-disciplines including mineralogy and petrology, structural geology, stratigraphy, sedimentology, petroleum exploration, and economic geology.

Environmental Science Option: Prepares students for graduate study or employment in hydrogeology and environmental careers that focus on ground-water quality, ground-water quantity, contaminant problems, and related soil investigations.

Water Resources Management Option: Prepares students for careers specifically addressing management issues related to water as a resource and the associated political, economic, philosophic, and social considerations.

Bachelor of Science (Teaching) Earth Science Major: The Earth Science major is designed for students who desire a secondary-school teaching career. The program conforms to the Minnesota Board of Teaching licensure standards.

Pass/No Credit Courses

All courses in Geoscience that fulfill the General Education Requirements, and those used to fulfill requirements of majors and minors, must be taken for grade only.

B.S. MAJOR - GEOSCIENCE:

GEOLOGY OPTION

67-71 S.H. (No Minor Required)

CORE REQUIREMENTS (23 S.H.)

- 120 Dynamic Earth (4)
- 130 Earth & Life Through Time (4)
- 220 Minerals & Rocks (4)
- 280 Field & Analytical Methods I (2)
- 330 Structural Geology (4)
- 340 Sedimentology & Stratigraphy (4)
- 475 Geoscience Seminar (1)

NOTE: Majors in all options are urged to take a geology summer field course prior to graduation. This can satisfy the requirement GEOS 480, or an upper-division elective.

REQUIRED COURSES (35-36 S.H.)

Geoscience (12 s.h.)

- 320 Optical Mineralogy & Petrology (4)
- 430 Chemistry & Physics of the Earth (3)
- 440 Basin Analysis & Tectonics (4)
- 480 Field & Analytical Methods II (1)

Chemistry (4 s.h.)

- * 212 Principles of Chemistry I (4)

Physics (4 s.h.)

Choose one of the following two courses:

- * 201 General Physics I (4) OR
- * 221 University Physics I (4)

Plus one (Chemistry or Physics) of the following (4 s.h.)

- PHYS 202 General Physics II (4) OR
- PHYS 222 University Physics II (4) OR
- * CHEM 213 Principles of Chemistry II (4)

Mathematics (6 s.h.)

- * 150, *155 Math for the Earth & Life Sciences I, II (3,3)

Computer Skills (2-3 s.h.)

- Choose one of the following two courses:
- ENGR 205 Engineering Graphics (2) OR
- CS 130 Visual Basic (3)

English (3 s.h.)

Choose one of the following two courses:

- 439 Technical Writing (3) OR
- 449 Scientific Writing (3)

GEOSCIENCE ELECTIVES (9-12 S.H.)

Select from the elective pool listing, except for Geoscience courses listed as requirements for major.

*Course may be used to satisfy certain General Education Requirements.

B.S. MAJOR - GEOSCIENCE:

ENVIRONMENTAL SCIENCE OPTION

122-126 S.H. (No Minor Required)

(Alliance with environmental science options of other departments is given under "Environmental Science" elsewhere in this catalog)

GENERAL EDUCATION COURSES (30 S.H.)

Skill Requirements (9 s.h.)

- ENG 111 English Composition (4)
- CMST 191 Speech Communication (3)
- MATH (3 s.h., included below with MATH 150, 155)

Courses selected from approved list of physical education activities courses (2)

Humanities (6 s.h.)

Courses selected from approved list of humanities courses and two departments

Natural Science (0 s.h.)

(6 s.h. included below with CHEM 212, 213, PHYS 115, BIOL 241, 242)
Social Science (6 s.h.)

Courses selected from approved list of social science courses and two departments

Different Culture (6 s.h.)

Courses selected from approved list of different culture courses and two departments

Allied Studies (3 s.h.)

Courses selected from approved list of allied studies courses

Additional credits required to reach the 45 credit requirement (30 + 3 MATH + 6 Nat. Sci. + 6 additional) are at the student's discretion, provided the student takes no more than two courses per category from a single department. Note that many courses required in the program outlined below can be used to satisfy certain requirements.

GEOSCIENCE CORE COURSES (23 S.H.)

- 120 Dynamic Earth (4)
- 130 Earth & Life Through Time (4)
- 220 Minerals & Rocks (4)
- 280 Field & Analytical Methods I (2)
- 330 Structural Geology (4)
- 340 Sedimentology & Stratigraphy (4)
- 475 Geoscience Seminar (1)

NOTE: Majors in all options are urged to take a geology summer field course prior to graduation. This can satisfy the requirement GEOS 480, or an upper-division elective.

ENVIRONMENTAL SCIENCE OPTION

REQUIREMENTS (20-21 S.H.)

- 225 Environmental Geoscience (3)
- 240 Hydrogeology (4)
- 315 Surficial Processes & Soils (4)
- 370 GIS & Imaging Techniques (3)
- 420 Applied Hydrogeology (4)
- 400 Directed Research in Geoscience (2-3)

OTHER REQUIRED COURSES (43-44 S.H.)

Biology (12 s.h.)

- * 241, *242 Principles of Biology I, II (8)
- 312, 313 General Ecology, Ecology Lab (4)

Chemistry (12 s.h.)

- * 212, *213, Principles of Chemistry I, II (8)
- 320 Environmental Chemistry (4)

Mathematics (6 s.h.)

- * 150, *155 Math for Earth & Life Sciences I, II (6)

Physics (4 s.h.)

- * 115 Conceptual Physics (4)

Two of the following three courses (6 s.h.)

- BUSA 451 Environmental Law (3)
- ECON 315 Environmental & Natural Resources Economics (3)
- POLS 340 Environmental Policy (3)

One of the following courses (3-4 s.h.)

- BIOL 315 Environmental Biology (3)
- BIOL 335 Plant Ecology (4)
- BIOL 360 Entomology (4)

† BIOL 415 Ecology of Large Rivers (4)

- BIOL 420 Limnology (4)

CHEM 425 Analytical Chemistry I (4)

CHEM 436 Topics in Environmental Chemistry (3)

†You may take the third course as an Environmental Science

Option Elective.

If you chose to take BIOL 415 as your elective from this group of courses, you may not chose BIOL 415 as your elective course under the Environmental Science Option Electives section above.

*Course may be used to satisfy certain General Education Requirements

ENVIRONMENTAL SCIENCE OPTION ELECTIVES

(6-8 S.H.)

- Courses totaling 6-8 s.h. to be chosen from:
- GEOS 310 Non-renewable Natural Resources (3)

- GEOS 430 Chemistry & Physics of the Earth (3)
 GEOS 480 Field & Analytical Methods II (1)
 BIOL 415 Ecology of Large Rivers (4)
 * STAT 210 Statistics (3)
 BUSA 451 Environmental Law (3) OR
 ECON 315 Environmental & Natural Resources (3) OR
 POLS 340 Environmental Policy (3)

NOTE: You can take one of these courses as an elective in the option; the one chosen as an elective MUST differ from the two chosen in the 'Other Required Courses' section below.

B.S. MAJOR - GEOSCIENCE: WATER RESOURCES MANAGEMENT OPTION

59-60 S.H. (No Minor Required)

CORE REQUIREMENTS (23 S.H.)

- 120 Dynamic Earth (4)
 130 Earth & Life Through Time (4)
 220 Minerals & Rocks (4)
 280 Field & Analytical Methods I (2)
 330 Structural Geology (4)
 340 Sedimentology & Stratigraphy (4)
 475 Geoscience Seminar (1)

NOTE: Majors in all options are urged to take a geology summer field course prior to graduation. This can satisfy the requirement GEOS 480, or an upper-division elective.

REQUIRED COURSES (34 S.H.)

Geoscience (15 s.h.)

- 110 Oceanography (4) OR
 115 Meteorology (4)
 225 Environmental Geoscience (3)
 240 Hydrogeology (4)
 315 Surficial Processes and Soils (4)

Math (3 s.h.)

- * 150 Math for the Earth & Life Sciences I (3)
 English/Administrative Information Systems (3 s.h.)
 ENG 439 Technical Writing (3) OR
 ENG 449 Scientific Writing (3) OR
 AIS 333 Business Communications (3)

Biology (4 s.h.)

- 415 Ecology of Large Rivers (4)

Political Science (3 s.h.)

- 340 Environmental Policy Analysis (3)

Philosophy (3 s.h.)

- * 240 Philosophy of Science (3)

Economics (3 s.h.)

- 315 Environmental & Natural Resource Economics (3)

GEOSCIENCE ELECTIVES (2-3 S.H.)

Select from the elective pool listing, except for Geoscience courses listed as requirements for major.

*Course may be used to satisfy General Education Requirements

B.S. MAJOR - EARTH SCIENCE (Teaching) 124-126 S.H.

(128 S.H. required for graduation)

The Minnesota Board of Teaching (BOT) was in the process of changing the requirements for teaching licensure at the time that this catalog went to print. The Geoscience Department, in cooperation with other science departments and the College of Education, is developing a new BOT-approved program which will be implemented as soon as possible. Students should be aware that the program described below will be changing significantly in the near future, and they will need to work closely with their academic advisor to ensure that they will be able to graduate with a BOT-approved degree. Students graduating after September 1, 2001, must meet these new licensure requirements.

NOTE: Teaching majors must take all courses in the Professional Education Sequence in addition to courses in the content area listed below. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog. You must also gain admission to the Education Program before you may enroll in Professional Education Sequence courses. See your academic advisor for more information.

GENERAL EDUCATION

I. BASIC SKILLS (9 S.H.)

- English 111 (4)
 CMST 191 - Fundamentals of Speech Communication (3)
 Phys Ed (2 courses) (2)
 Math (0) filled by major requirements below

II. HUMANITIES (0) (filled by PHIL 240 - Phil. Of Science below)

III. SOCIAL SCIENCE (0) (filled by WOM 220 - Power, Privilege, & Gender below)

IV. NATURAL SCIENCE (0) (filled by major requirements below)

V. DIFFERENT CULTURE (3) (one general education course)

VI. ALLIED STUDIES (0) (filled by HHP 204 below)

EARTH SCIENCE REQUIREMENTS (80-82 S.H.)

GEOSCIENCE COURSES (34-36 S.H.)

- 105 Astronomy (4)
 110 Oceanography (4)
 115 Meteorology (4)
 120 Dynamic Earth (4)
 130 Earth & Life Through Time (4)
 220 Minerals & Rocks (4)
 225 Environmental Geoscience (3)
 280 Field & Analytical Methods I (2)
 230 Paleontology (3) OR 340 Dedimentology & Stratigraphy (4)
 OR
 315 Surficial Processes & soils (4)
 400 Directed Research (2-3)

OTHER REQUIRED COURSES (46 S.H.)

- BIOL 241*, 242* Principles of Biology I, II (8)
 CHEM 212*, 213* Principles of Chemistry I, II (8)
 PHYS 201*, 202* General Physics I, II (8)
 PHYS 311 Science Teaching Methods (4)
 MATH 150*, 155* Math for Earth & Life Sciences I, II (6)
 PHIL 240* Philosophy of Science (3) (counts as Humanities gen-ed)
 HHP 204* Personal & Community Health (3) (counts as Allied Studies gen-ed)
 SPED 400 Education for the Exceptional Child (3)
 WOM 220 * Power, Privilege, and Gender (3) (counts as Social Science gen-ed)

PROFESSIONAL EDUCATION SEQUENCE (32 S.H.)

EDUC 305, 308, 312, 429, 449, 459, 465 (Student Teaching)
 Note that EDUC 305 and 312 MUST be taken together in the same semester, and will NOT be offered during summer terms.

In Addition to the above course requirements, all students must demonstrate that they have:

- 1) judged a local, regional, or state science fair, or mentored K-12 students on their science-fair projects;
- 2) hosted a geoscience visit by a K-4 class;
- 3) hosted a geoscience visit by a 5-12 class;
- 4) worked as a departmental Teaching Assistant or peer tutor in Geoscience.

B.S. MINOR - GEOSCIENCE

25-26 S.H.

REQUIRED COURSES (22 S.H.)

Geoscience (22 s.h.)

- * 120 Dynamic Earth (4)
- * 130 Earth & Life Through Time (4)
 - 220 Minerals & Rocks (4)
 - 280 Field & Analytical Methods I (2)
 - 330 Structural Geology (4)
 - 340 Sedimentology & Stratigraphy (4)

GEOSCIENCE ELECTIVES (3-4 S.H.)

May be chosen from any departmental course offerings 300 level and above, except for GEOS 399.

ELECTIVES POOL for all Geoscience Majors:

- 225 Environmental Geoscience (3)
- 230 Paleontology (3)
- 240 Hydrogeology (4)
- 310 Non-renewable Natural Resources (3)
- 315 Surficial Processes & Soils (4)
- 320 Optical Mineralogy & Petrology (4)
- 370 GIS & Imaging Techniques (3)
- 385 Geology of North America (3)
- 399 Geoscience Internship (1-3)
- 400 Directed Research, Geoscience (1-3)
- 405 Current Topics in Geoscience (1-3)
- 420 Applied Hydrogeology (4)
- 430 Chemistry & Physics of the Earth (3)
- 440 Basin Analysis & Tectonics (4)

*Course may be used to satisfy General Education Requirements

Geoscience Course Descriptions

All courses in the major, minor, options, concentrations and licenses must be taken on a Grade Only basis.

100 - Minnesota's Rocks and Waters-3 S.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. Offered on demand.

103 - Natural Disasters-3 S.H.

An investigative exploration of significant geohazards impacting the earth with emphasis on volcanoes, earthquakes, landslides and other hill slope failures, hurricanes and tornadoes, pollution and floods. Geologic processes governing each type of disaster are explored. Prediction, impacts and mitigation potential for each hazard are examined. Lecture, no laboratory. Offered yearly.

105 - Astronomy-3 or 4 S.H.

Quarter Course: 220.

History of astronomy. Study of the planets, their moons, comets, asteroids, meteors and other planetary bodies. Origin of the universe, solar system, sun and other stars. Lecture. Laboratory and observation optional. Offered yearly.

110 - Oceanography-3 or 4 S.H.

Quarter Course: 200.

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. Offered alternate years.

115 - Meteorology-4 S.H.

Quarter Course: 230.

Study of earth's dynamic weather system including atmospheric structure, composition, and processes; origin and development of storms and related phenomena. Lecture and laboratory. Offered alternate years.

120 - Dynamic Earth-4 S.H.

Quarter Course: 101.

An introduction to geologic principles and the processes shaping planet Earth. Composition and distribution of earth materials; examination of internal processes and their relationship to the distribution of continents over time; surficial processes and environmental problems. Lecture and laboratory. Offered each semester.

130 - Earth and Life Through Time-4 S.H.

Quarter Course: 102.

Traces the physical, chemical and biological evolution of the Earth from the origin of the solar system to the present including origin and evolution of earth's crust, interior, hydrosphere and atmosphere; plate tectonics and mountain building; absolute age dating; paleomagnetism. Lecture and laboratory. Field trips required. Prerequisite: GEOS 120 or equivalent. Offered yearly.

220 - Minerals and Rocks-4 S.H.

Quarter Course: 250 and 320.

Introduction to minerals as naturally occurring inorganic chemical compounds. Physical and chemical properties of minerals, classification and description of minerals, with emphasis on rock-forming minerals. Classification, description and interpretation of major rock groups. Lecture and laboratory. Prerequisite: GEOS 120 or instructor's permission. Offered yearly.

225 - Environmental Geoscience-3 S.H.

Quarter Course: 325.

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: GEOS 120 or instructor's permission. Offered alternate years.

230 - Paleontology-3 S.H.

Quarter Course: 350.

Evolution, classification, and geologic significance of major invertebrate and vertebrate groups. Lecture and laboratory. Required field trips. Prerequisite: GEOS 130 or instructor's permission. Offered alternate years.

240 - Hydrogeology-4 S.H.

Quarter Course: 420.

Examination of the hydrologic cycle and surface-water and ground-water relationships. Study of interrelationship of water and earth materials, including ground-water occurrence, movement and determination of aquifer characteristics. Lecture and laboratory. Prerequisite: GEOS 130. Offered yearly.

280 - Field and Analytical Methods I-2 S.H.

Quarter Course: 480.

Basic geologic field techniques including sampling methods, rock identification, field descriptions and use of Brunton compass. Measurement and description of stratigraphic sections. Prerequisite: GEOS 220. Offered yearly. Field trips required.

310 - Non-Renewable Natural Resources-3 S.H.

Quarter Course: 410.

Origin and geologic environment of economic mineral deposits. Availability, exploitation, and management of non-renewable resources including metallic and non-metallic minerals, ground water, and energy resources. Lecture only. Prerequisite: GEOS 220. Offered on demand.

315 - Surficial Processes and Soils-4 S.H.

Quarter Course: 315 and 330.

Study of the nature and evolution of landforms and materials at or near earth's surface. Analysis of landforms using topographic maps and aerial photographs. Soil-forming processes and soil classification. Lecture and laboratory. Prerequisite: GEOS 130. Offered alternate years.

320 - Optical Mineralogy and Petrology-4 S.H.

Quarter Course: 251, 320 and 321.

Theory of optical mineralogy. Optical properties of minerals determined by petrographic microscope. Introduction to major sedimentary, igneous, and metamorphic rocks; mineral equilibria and stability, mineralogic phase rule and metamorphic facies. Rock identification by megascopic and petrographic techniques. Lecture and laboratory. Prerequisite: GEOS 220. Offered alternate years.

330 - Structural Geology-4 S.H.

Quarter Course: 380.

Study of faulting, folding, mechanics of rock deformation and structural techniques. Principles of plate tectonics and mountain building. Lecture and laboratory. Prerequisite: GEOS 220. Offered yearly.

340 - Sedimentology and Stratigraphy-4 S.H.

Quarter Course: 414 and 415.

Physical, chemical and biological processes that affect sedimentation and depositional systems. Study of stratigraphic nomenclature and

correlation, facies models and depositional sequences, eustatic changes of sea level, and plate tectonics. Lecture, laboratory and required field trips. Prerequisite: GEOS 220. Offered yearly.

370 - GIS and Imaging Techniques-3 S.H.

Techniques of using aerial photographs, remote sensing, and GIS for geological applications. Prerequisite: GEOS 220 and instructor's permission. Offered alternate years.

385 - Geology of North America-3 S.H.

Study of the physiographic provinces of the North American continent with emphasis on geomorphology, structural history, stratigraphy and mineral deposits of each province. Lecture and laboratory. Prerequisite: GEOS 220. Offered on demand.

399 - Internship-1-3 S.H.

Supervised governmental agency, business, industrial or research institution experience designed by Geoscience faculty advisor, work supervisor and student. Open only to Geoscience students with Junior or Senior standing, math/science GPA 2.5 or better, and approval by the Geoscience Department. Offered each semester.

400 - Directed Research-Geoscience-1-3 S.H.

Independent study of selected geologic field and/or laboratory problem with subsequent preparation of written report and oral seminar. May be repeated up to 6 credits. Prerequisite: department chairperson's permission. Offered each semester.

405 - Current Topics in Geoscience-1-3 S.H.

Quarter Course: 404.

Analysis of current topics and issues relevant to Geosciences. Subject matter and prerequisites will be announced in advance by the Department. May be repeated as topics change. Offered on demand.

420 - Applied Hydrogeology-4 S.H.

Quarter Course: 421 and 425.

Application of hydrologic principles to ground-water flow problems,

aqueous geochemistry, 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: GEOS 240 and MATH 155. Offered alternate years.

430 - Chemistry and Physics of the Earth-3 S.H.

Quarter Course: 425 and 430.

Application of chemical and physical principles to geologic problems. Chemistry of formation of major rock groups. Isotopic and elemental distribution and abundance. Physics of Earth's interior as determined from study of seismic activity. Application of seismic reflection and refraction principles. Lecture only. Prerequisite: CHEM 212, PHYS 201, GEOS 330 and GEOS 340. Offered alternate years.

440 - Basin Analysis and Tectonics-4 S.H.

Quarter Course: 321, 414 and 415.

Interpretation of the stratigraphic record to understand the development of sedimentary basins in a plate tectonic context. Study of sequence stratigraphy, eustatic changes in sea level, and fluid flow in basins. Lecture and laboratory. Prerequisite: GEOS 340. Offered alternate years.

475 - Geoscience Seminar-1 S.H.

Critical reading, discussion, and oral presentation of current topics and controversies in geosciences. Focus on professional journals and other scientific media. Prerequisite: Senior standing in Department or instructor's permission. Offered yearly.

480 - Field and Analytical Methods II-1 S.H.

Advanced geologic field techniques including mapping, correlation, and problem solving. Includes some laboratory sample preparation and analysis. Prerequisite: GEOS 280, GEOS 340 and instructor's permission. Offered alternate years.

GLOBAL STUDIES

Minne Hall, Room 122, (507) 457-5415

Yogesh Grover, (Director)

The Global Studies is an interdisciplinary Program designed to address students' needs to prepare themselves for a world that is increasingly inter-related economically, politically and culturally. Through the Global Studies Program, students are 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/cultural issues.

Functions of the Program

The Global Studies Program is designed to serve all WSU students. Student participation can involve any of the following possibilities:

1. **Academic Degrees:** Students may be interested in major and minor degree programs that are designed with an international focus. Consult the Global Studies Office during the fall semester to obtain information about these options.
2. **Co-Curricular Activities:** The Global Studies Program sponsors or co-sponsors a number of activities that provide exposure to global/cultural issues. Students are encouraged to take advantage of the many valuable learning experiences outside the classroom. Activities include conferences, speakers, panel discussions and presentations. Information on specific events is available through the GSP Office.
3. **Study Abroad:** Students are encouraged to consider Study Abroad as a way of broadening their university experience and enhancing their resumes by including a living and learning experience in a foreign country. In addition to programs sponsored by WSU, students may select programs through other universities. For specific information, students should consult the Study Abroad section of the catalog or make an appointment with Bette Lilla in 152 Lourdes Hall (507) 453-2500.

Students interested in any of these opportunities are encouraged to make an appointment with the GSP Director in Minne 122. The GSP office is located in Minne 128.

Global Studies Minor

The Global Studies Minor is offered by the Global Studies Program and provides students with a broad spectrum of courses that are inter-disciplinary and cross-cultural. Combining a Global Studies Minor with a major field of study allows students to leave WSU with solid preparation in a specific field, along with the knowledge and awareness of other cultures and global issues, that is increasingly needed in nearly all fields and careers.

B.A. MINOR - GLOBAL STUDIES

29-32 S.H.

Minimum of 9 credit hours at the 300-400 level.

CORE REQUIREMENTS (6 S.H.)

Global Studies

- * 200 Introduction to Global Studies (3)
- 400 Global Studies Seminar (3)

COMPARATIVE COURSES (6-9 S.H.)

Choose from the following:

CMST 381 Advanced Cross-Cultural and International Communication (3)

Choose one of the following two courses:

SOC 340 Social Cultural Anthropology (3) OR
SOC 411 Sociology of Religion (3)

Choose one of the following two courses:

- * GEOG 110 World Regional Geography (3) OR
- * GEOG 213 Cultural Geography (3)

Choose one of the following two courses:

- * POLS 130 Introduction to International Relations (3) OR
- * POLS 135 Introduction to Comparative Politics (3)

Choose one of the following three courses:

FIN 440 International Finance (3) OR
ECON 404 International Economics (3) OR
ECON 415 International Economic Development (3)

- * MUS 114 World Music (3)
- EDUC 450 Comparative Education (3)

FOREIGN LANGUAGE (8 S.H.)

The 8 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 requirement can be fulfilled by the completion of 8 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.

International students have the option of having their foreign language requirements waived by the Program Director if they take courses with equivalent number of credits from the list of electives in the Global Studies Program.

ELECTIVES (6-9 S.H.)

Students select from the following approved courses from a variety of departments. This list includes courses that take a global or area studies approach. Electives should be selected to complement the student's major or to focus on a global issue or an area studies specialization.

*Some of these courses may have pre-requisites.

ART 437 438
BUSA 411 447 455 475
CMST 381

ECON/FIN 404 415 440

EDUC 450

ENG 432

FOR LANG

FREN 204 205 302 402 403 404

GERM 204 205 302 401 402 403

SPAN 302 303 401 402 403

HIST 123 165 170 233 341 415 417 434 440 461 469

MKTG 384

MCOM 450

MUS 114 115 116 351 352

POLS 130 135 205 224 225 226 270 332 335 336 337

342 346 347 390 488

SOC 340 411

Check with program director for additional approved courses.

- * Course may be used to satisfy certain General Education requirement

Global Studies Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicum. The P/NC option is available to non-majors unless otherwise noted.

200 - Introduction to Global Studies-3 S.H.

This course introduces students to a framework for viewing the world as a unit and explores a variety of contemporary global issues such as economic development, environmental problems, status of women, world population and its implications, ethnic conflicts, etc. Offered every semester.

350 - Cross-Cultural Field Experience-1-9 S.H.

The cross-cultural 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 the classroom situation and to integrate direct cultural experiences with theoretical understanding of cultural issues. May be repeated for up to 9 semester hours. This course cannot be used to fulfill general education credit. Prerequisite: permission of the instructor and the GSP Director.

400 - Global Studies Seminar-3 S.H.

This course allows students to engage in an in-depth examination of global issues, using a cross-disciplinary approach. Offered yearly. Prerequisite: GS 200.

460 - Independent Study-1-9 S.H.

Directed independent work on specific topics of interest to the student. The course topic, requirements, meeting times and number of semester hours are to be determined through consultation with the instructor. Repeatable for credit up to a total of 9 semester hours. Prerequisite: permission of the instructor and GSP Director.

HEALTH & HUMAN PERFORMANCE

Memorial Hall, Room 122, (507) 457-2600

Miller (Chairperson), Anderson, Appicelli, Fisher, Grimm, Castello, Nelson, Poock

Faculty

Dawn Anderson, Associate Professor; B.A., University of Minnesota-Morris; M.S., Iowa State University; Ph.D., Ball State University, Muncie (IN); 1992 -

Phillip Appicelli, Assistant Professor; B.A., College of St. Scholastica; M.A., Ph.D., Kent State University; 1998 -

Amy Fisher, Instructor; B.A., Luther College; M.S., Northern Michigan University; 1995 -

Gail Grimm, Associate Professor; B.S., University of Wisconsin-Platteville; M.S., University of Wisconsin-Madison; Ph.D., University of Arkansas-Fayetteville; 1989 -

Gary Castello, Assistant Professor; B.S., University of Wisconsin-La Crosse; M.S., Ball State University; Ph.D., University of Wisconsin-Milwaukee; 1997 -

Randolph W. Miller, Professor; B.P.E., University of Manitoba (Canada); M.A., Ph.D., University of Minnesota-Twin Cities; 1974 -

Shellie Nelson, Associate Professor; B.S., Winona State University; M.S., University of Wisconsin-La Crosse; 1988 -

Kyle Poock, Instructor, Women's Basketball Coach; B.S., M.S., Winona State University; 1995 -

The Department of Health and Human Performance at Winona State University is committed to preparing competent, entry level exercise physiologists, health educators and athletic trainers who can serve the needs of Minnesota and the global community. In order to fill this fundamental mission, the faculty will provide instruction in health education pedagogy, basic science and clinical sciences as well as facilitate the professional development of the students through sound instruction scholarly activity and demonstrated service.

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 and is committed to the seven principles for good practice in Undergraduate education: Student-Faculty Contact, Cooperation among Students, Active Learning, Prompt Feedback, Time on Task, High Expectations, Diverse Talents and Ways of Learning.

Pre-Professional Sequences:

Pre-Professional Sequences are not degree programs (e.g. major or minor) at WSU. They are programs that are preparatory for a degree at another college or university. The Pre-Professional Sequence offered through the Health and Human Performance Department is the Pre-Physical Therapy Sequence.

Most Pre Physical Therapy students at WSU major in the biology Allied Health Option. Those in the Department of Health and Human Performance typically choose Exercise Science: Athletic Training Option as their major. Dr. Gary Castello is the Pre Physical Therapy Advisor with the Department of Health and Human Performance and will advise students on course choice for admission into a School of Physical Therapy.

Scholarships

A number of Scholarships are available for School and Community Health and Exercise Science majors. Inquire about scholarships early in the academic year. A complete listing explaining each scholarship criteria is available in the Health and Human Performance Department Office.

Insurance

Students of Minnesota State Colleges and Universities participating in practicums and internships are insured by the Chicago Insurance Company through their agent Maginnis and Associates for \$1,000,000 each incident/occurrence and \$3,000,000 in the Aggregate. There is a \$12.00 fee for the Student Professional liability coverage collected through the Business Office.

B.S. MAJOR - SCHOOL AND COMMUNITY HEALTH EDUCATION

A student selecting School and Community Health Education may choose from one of the three options: Non-Teaching, Teaching, and Public Administration. Each option leads to a Bachelor of Science degree. All three of the options within the School and Community Health Education Major allow for many career opportunities. With this B.S. degree, one should be able to meet the Competencies of Entry-Level Health Educators. Your academic advisor is a source for more career information and should be contacted immediately after you decide your major.

The Health and Human Performance Department encourages its School and Community Health Education Majors to become members of its academic club, H.O.P.E. (Health Organization for Promotion and Education), and to maintain physically active and practice healthful lifestyles. Student teaching experiences and internships are designed to allow students to practice their major at an actual school or agency. Both student teaching and internships require professional liability insurance.

Pass/No Credit Courses

All School and Community Health Education Majors must take all required courses for grade only unless offered only by P/NC.

B.S. MAJOR - SCHOOL AND COMMUNITY HEALTH EDUCATION (Non-Teaching) 57 S.H. (No Minor Required)

NOTE: Students majoring in School & Community Health Education (Non-Teaching) must meet all requirements for graduation specified in the Academic Information section of this catalog.

REQUIRED COURSES 42 S.H. HHP (34 s.h.)

- 204 Personal & Community Health (3)
- 288 Health Perspectives (3)
- 311 Comprehensive School Health Program (2)
- 326 Educational Topics/Issues (2)
- 328 Behavioral Interventions (3)
- 403 Epidemiology (3)
- 410 Program Planning in Health Promotion (3)
- 430 Public Health (4)

- 433 Senior Health Seminar (1)
- 496 Health Education Internship (10)

Biology (8 s.h.)

- * 211 Anatomy & Physiology I (4)
- 212 Anatomy & Physiology II (4)

ELECTIVES (15 S.H.)

Administrative Information Systems

332, 441

Biology

104, 171, 172, 203, 206, 209, 269

Communication Studies

281, 282, 371

Counselor Education

220, 432

Education

309, 442

Geography

213

Health Care Management

213

Health & Human Performance

205, 320, 354, 431, 490

Marketing

300, 323

Nursing

260, 480

Physical Education & Recreation

214, 422

Political Science

340, 341, 426

Psychology

250, 298, 325, 365, 424

Sociology

212, 216, 350, 412, 434, 440, 450

Special Education

400, 405

Statistics

110

* Course may be used to satisfy certain General Education requirement

B.S. MAJOR - SCHOOL AND COMMUNITY HEALTH EDUCATION (Teaching)

49 S.H.

NOTE: Teaching majors must take all courses in the Professional Education Sequence in addition to courses in the content area. Students majoring in School & Community Health Education (Teaching) must have both a 2.75 overall GPA and a 2.5 GPA in the major to be admitted into the Professional Education Sequence for degree issuance. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

REQUIRED COURSES (35 S.H.)

HHP (27 S.H.)

- 204 Personal & Community Health (3)
- 288 Health Perspectives (3)
- 311 Comprehensive School Health Program (2)
- 320 Health Education in the Elementary School (3)
- 326 Educational Topics/Issues (2)
- 328 Behavioral Interventions (3)
- 410 Program Planning in Health Promotion (3)
- 425 Organization and Administration of School Health (3)
- 430 Public Health (4)
- 433 Senior Health Seminar (1)

Biology (8 s.h.)

- * 211 Anatomy & Physiology I (4)
- 212 Anatomy & Physiology II (4)

ELECTIVES (14 S.H.)

Administrative Information Systems

332, 441

Biology

104, 203, 206, 209, 269

Communication Studies

281, 282

Counselor Education

220, 432

Health & Human Performance

205, 354, 403, 431, 490

Nursing

260

Physical Education & Recreation

214, 422

Political Science

340

Psychology

250, 298, 365

Sociology

212, 216, 350, 412, 434, 440, 450

Special Education

400, 405

Statistics

110

* Course may be used to satisfy certain General Education requirement

B.S. MAJOR - SCHOOL AND COMMUNITY HEALTH: PUBLIC ADMINISTRATION OPTION
74 S.H. (No Minor Required)

REQUIRED COURSES 43 S.H.

HHP (34 S.H.)

- 204 Personal & Community Health (3)
- 288 Health Perspectives (3)
- 311 Comprehensive School Health Program (2)
- 326 Educational Topics/Issues (2)
- 328 Behavioral Interventions (3)
- 403 Epidemiology (3)
- 410 Program Planning in Health Promotion (3)
- 430 Public Health (4)
- 433 Senior Health Seminar (1)
- 496 Health Internship (10)

Biology (8 s.h.)

- * 211 Anatomy & Physiology I (4)
- 212 Anatomy & Physiology II (4)

* Course may be used to satisfy certain General Education requirement

ELECTIVES (15 S.H.)

Biology

104, 171, 172, 203, 206, 209, 269

Communication Studies

281, 282, 371

Counselor Education

220, 432

Education

309, 442

Geography

213

Health Care Management

213

Health & Human Performance

205, 320, 354, 431, 490

Marketing

300, 320

Nursing

260, 480

Physical Education & Recreation

214, 422

Political Science

340, 341, 426

Psychology

250, 298, 365

Sociology

212, 216, 350, 412, 434, 440, 450

Special Education

400, 405

Statistics

110

OTHER DEPARTMENTAL REQUIREMENTS (9 - 12 S.H.)

Political Science (6-9 s.h.)

221 State & Local Government (3)

228 Public Service (3)

426 Politics of Public Budgeting (3)

Administrative Information Systems (3 s.h.)

333 Business Communications (3)

441 Training Techniques and Media (3)

ELECTIVES (8 S.H.)

Administrative Information Systems

340, 360, 410, 412, 435

Business Administration

202

Philosophy

330

Political Science

320, 322, 340

B.S. MAJOR - EXERCISE SCIENCE

71-78 S.H. (No Minor Required)

A student choosing to study Exercise Science may choose one of three options (Worksite Health Promotion, Cardiopulmonary Rehabilitation, and Athletic Training) within the Exercise Science Major. Each of these options leads to a Bachelor of Science degree. All three of the options within the Exercise Science Major allow for many career opportunities. One opportunity is to use the B.S. degree to gain admittance to similar graduate disciplines. Another opportunity is to use the B.S. degree to gain placement in the rapidly expanding allied health workforce. The academic advisor of each option will provide you with more information pertaining to career opportunities.

The Health and Human Performance Department encourages its Exercise Science majors to become members of its academic clubs, and to maintain physically active and healthful lifestyles.

Practicums and internships are designed to allow students to practice their major at an actual worksite. Practicum and internship workites requires professional liability insurance, current certification in CPR and first aid certification.

Pass/No Credit Courses

All Exercise Science majors must take all required courses for grade only.

Four-Year Guarantee

The Exercise Science Program offers a Four-Year Guarantee. You must declare your major as an entering first-year student, maintain a semester load of 16 credits each semester and not repeat any courses. This does not include internships. Other requirements are included in the Four-Year Guarantee. Please see the Department chairperson for more information.

Admission to the Exercise Science Major

Application to the Exercise Science major is a two step process. The first step is admission to WSU and completion of a declaration of major form from the Registrars office in order to secure an Exercise Science advisor that will assist with your academic plans.

The second step is application to the Exercise Science major. This application is generally completed during a student's second year (Transfer students need to confer with the Department Chair). An additional application process exists for students who wish to enter the Athletic Training major. (Please see the Athletic Training Option in the catalog). Students who have completed BIO 211, BIO 212, STAT 110 or STAT 210 and ENG 110 with a C or better and have a cumulative GPA of 2.50 or higher may apply for admission to the Exercise Science major.

Minimal Standards:

1. A grade of C or above must be achieved in each required Exercise Science course. Grades less than C constitute a failure in the Exercise Science major.
2. The students follow the policies and procedures as outlined in each academic options handbook for Exercise Science majors.

REQUIRED COURSES (45 S.H.)

HHP (28 S.H.)

235 Professional Issues in Exercise Science (3)

280 Techniques of Fitness Programming (2)

291 Prevention & Care of Athletic Injuries (2)

314 Anatomical Kinesiology (2)

340 Physiology of Exercise (4)

360 Nutrition for the Physically Active (3)

370 Mechanical Kinesiology (3)

380 Laboratory Methods in Exercise Science (3)

403 Epidemiology (3)

445 Medical Aspects of Exercise (3)

PER (2 s.h.)

300 Motor Learning (2)

Biology (8 s.h.)

* 211 Anatomy & Physiology I (4)

212 Anatomy & Physiology II (4)

Nursing (4 s.h.)

360 Pharmacology (1)

366 Pathophysiology (3)

Statistics (3 s.h.)

* 110 Fundamentals of Statistics (3) OR

210 Statistics (3)

SUGGESTED ELECTIVES

BIO 171 Medical Terminology A (1)

BIO 172 Medical Terminology B (1)

Athletic Training Option

The Exercise Science: Athletic Training Option is working toward becoming a *Commission for Accreditation of Allied Health Education Programs* (CAAHEP) nationally accredited program. In addition to the academic coursework requirements, students are required to complete 1200 hours of clinical education experience (assigned by the Athletic Training Program Director). Following completion of the clinical education and academic requirements of the major, a student will be eligible for national certification from the National Athletic Trainers Association Board of Certification (NATABOC).

Students interested in the Exercise Science: Athletic Training Major must apply to the program, participate in a competitive selection process and adhere to published retention guidelines.

Application and Selection Information

A student that is interested in the Exercise Science: Athletic Training Major should meet with the Athletic Training Program Director and enroll in HHP 191 Introduction to Athletic Training, BIO 211 and 212. Applications will be DUE on the first Monday of April each year. Applications will be rated, ranked by academic class and students will be selected for interview. The Selection Committee will determine the number of students selected from each academic class. This number directly correlates with the number of clinical educators available each year.

Each Applicant must provide the following:

1. Official Documentation (10 pts) should be sent from the following institutions to the Program Director.

- Winona State University Transcripts: Students must have completed HHP 191, HHP 235, HHP 291 HHP 340, HHP 314, BIO 211, and BIO 212 and have a 2.5 overall GPA or better to be considered. Other Exercise Science and Biology courses will also be evaluated independently from the overall GPA. The overall GPA will also be evaluated.
- Transfer Students must provide official transcripts from all other institutions attended. Transfer students **MUST** take HHP 191 at WSU and participate in all application and selection procedures at WSU. Transfer students must meet all university guidelines given in the catalog for transfer students and **MUST** take HHP 362, 391, 392, 393, 491, 494, and 498 at WSU. Students will be allowed to transfer a maximum of 200 clinical education hours at the discretion of the Program Director.
 - High School. Overall GPA.
 - Proof of First Aid and CPR Certification
 - Completed Medical Physical

2. Winona State University Observation Hours and Log (10 pts). Each student will complete observation hours in the WSU Athletic Training Room as required for HHP 191. Each student will compile a typed log documenting dates, times and information learned. Students will be given the opportunity to continue their observation hours throughout the academic year for a total of no more than 100 hours per year.

3. Clinical Educator Evaluations (5 pts).

Pre-Professional students will be evaluated each semester by his/her clinical educator. These evaluations will be discussed with each student and be on file with the Program Director.

4. Observation Hours at a Sports medicine Clinic (5 pts).

Pre-Professional students are encouraged to perform a *minimum* of ten observation hours at a Sports medicine Clinic of his/her choice with a Certified Athletic Trainer. These hours could be performed during University breaks and over the summer in a clinic outside of Winona. (This ATC could be one of the professional references!)

5. Letters of Recommendation (13 pts).

Each student is required to provide a total of five letters of recommendation. Two of these letters will be from Senior Student Athletic Trainers reflecting your daily interaction in the athletic training room. **THREE** of these letters will be **PROFESSIONAL** letters of recommendation. These letters should be from professionals in the medical, health or allied health field that you have worked directly with through observation hours and can reflect your potential to succeed in an allied health profession. These professional letters may also be from professors or instructors reflecting your academic success and potential. Finally, these letters may be from employers reflecting your maturity, interpersonal skills and other qualities of a successful allied health care professional.

6. Cover letter and resume (4 pts).

The completed application should include a single spaced essay or cover letter stating what the student's qualifications are to be part of the program, why the student wishes to become an athletic trainer, and a summarization of what the student can add to the program. A simple one page Resume should also be included. All of the materials listed above should be professionally presented in a soft covered portfolio. **NO hard cover or three ring binders PLEASE!** Each application will be kept on file in the Program Directors Office.

Pre-Professional Program

- Students enrolled in HHP 191 will extensively cover clinical expectations, duties and application procedures. (WSU Athletic Training Handbook)
- Pre-Professional Students are expected to perform observation hours each semester as assigned by the Program Director. Students may obtain a maximum of 100 hours per year prior to acceptance.

- Pre-Professional Students are also required to perform a minimum of ten observation hours at a Sportsmedicine Clinic of his/her choice as part of the application process.
- Applications to the clinical education program are accepted on the first **MONDAY** in **APRIL** each year. (see WSU Athletic Training Handbook for specific requirements)

Student Athletic Trainer Program

- Following successful completion of the application process, students must acquire clinical hours over two calendar years as assigned by the Program Director. These hours will be on a rotation as described in the WSU Athletic Training Handbook and be acquired at a variety of settings with several clinical educators. Students must comply with all academic and clinical Retention Guidelines.
- Student Athletic Trainers **MUST** record their hours each month, have their clinical educator sign-off on the hours at the time of the monthly evaluation and are responsible for an up-to-date file. This file will be checked by the Program Director.
- The clinical educator he/she is assigned to will evaluate the Student Athletic Trainer on a monthly basis. SATs will also be evaluated annually by the Program Director and WSU clinical educators.
- WSU sponsors an annual university "Assessment Day". Seniors will complete a "Mock"-NATABOC examination and juniors will complete a practical injury evaluation, modality prescription and set-up hosted by the WSU Athletic Training Faculty. Evaluations will be given to each student. Performance not meeting minimum standards will result in additional coursework or clinical assignments as deemed appropriate by the Program Director and HHP Department Chair.
- A clinical internship of 200 hours is required during the summer following the student's senior year. This internship **MUST** be under the direct supervision of a Certified Athletic Trainer. These hours **MAY** count toward the student's clinical education hours **IF** the internship site has a Clinical Education Affiliation Agreement with WSU.

WSU Student Athletic Trainer Retention Competencies
(For Student Athletic Trainers that have successfully completed the Application Process and have been selected to begin their clinical education hours)

I. Academic Requirements

- A. Meet WSU Graduation Standards (WSU Undergraduate Catalog)
- B. Maintain a cumulative WSU GPA of not less than 2.5
- C. Maintain a 3.0 overall GPA in the Exercise Science Core
- D. Attain a "B" or better in all Athletic Training Option Courses
- E. PROVIDE Athletic Training Program Director with transcripts at the beginning of each semester

II. Clinical Education Requirements

- A. Compliance with ALL objectives, policies and procedures established in the WSU Athletic Training Handbook
- B. Compliance with the NATA's Code of Ethics (Athletic Training Handbook)
- C. Compliance with the WSU Student Handbook (Student Rights and Responsibilities published in semester class schedules)
- D. Compliance with assignments/directions given by the athletic training clinical educators.
- E. Demonstrate appropriate clinical skill acquisition paralleling clinical and academic experience level.
 - Positive monthly evaluations
 - Positive annual evaluations
 - Satisfactory completion of "Assessment Day Competencies"

III. Program Compliance Procedures

- A. Student Athletic Trainer Expectations
 - 1. Compliance with all academic and clinical guidelines.
 - 2. Student Athletic Trainers and Pre-Professional students will act in a mature, responsible manner that will reflect positively on themselves, the Athletic Training Program and the University while

performing academic and clinical education hours. These expectations and Due Process Rights are clearly outlined in the Athletic Training Handbook and covered extensively in HHP 191 Introduction to Athletic Training.

ATHLETIC TRAINING OPTION

HHP 33 S.H.

- 191 Introduction to Athletic Training (1)
- 204 Personal and Community Health (3)
- 345 Emergency Response for the Professional Rescuer (3)
- 362 Practicum in Athletic Training (4)
- 391 Injury Recognition of the Upper Body (3)
- 392 Injury Recognition of the Lower Body (3)
- 393 Therapeutic Modalities (3)
- 491 Therapeutic Treatment and Rehabilitation (3)
- 492 Administration of Athletic Training (3)
- 494 Therapeutic Interventions (3)
- 498 Internship in Athletic Training (4)

CARDIOPULMONARY REHABILITATION OPTION

26 S.H.

HHP (21 S.H.)

- 344 Electrocardiography (3)
- 361 Practicum in Cardiopulmonary Rehabilitation (3)
- 385 Senior Seminar: Cardiopulmonary Rehabilitation (3)
- 420 Clinical Exercise Testing and Prescription (4)
- 497 Internship in Cardiopulmonary Rehabilitation (8)

Nursing (3 s.h.)

- 392 Cardiac Risk Prevention (3)

Counselor Education (2 s.h.)

- 432 Stress Management (2)

SUGGESTED ELECTIVES

- PSY 390 Abnormal Psychology
- SOC 434 Medical Sociology
- PSY 421 Cognitive Behavior Theory
- CHEM 209 General, Organic & Biochemistry II
- PHYS 201 General Physics I

WORKSITE HEALTH PROMOTION OPTION

27-28 S.H.

HHP (22 S.H.)

- 288 Health Perspectives (3)
- 354 Principles of Safety (2)
- 362 Practicum in Worksite Health Promotion (3)
- 410 Program Planning (3)
- 493 Worksite Health Promotion (3)
- 498 Internship in Worksite Health Promotion (8)

Counselor Education (2 s.h.)

- 432 Stress Management (2)

ELECTIVES (3-4 S.H.)

- HHP 420 Clinical Exercise Testing and Prescription (4)
- MKTG 300 Principles of Marketing (3)
- PSY 298 Health Psychology (3)

Minor in Training and Development recommended.

HHP Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicums. The P/NC option is available to non-majors unless otherwise noted.

Health Education

204 - Personal & Community Health-3 S.H.

Addresses individual and community health issues. Investigates the dimensions of personal wellness that influence health behavior. Course material covers content, self-assessments and journal entries

in relationship to behavioral change. Alcohol, tobacco and/or other drugs with emphasis on prevention strategies are addressed as mandated by Minnesota state law 126.06. Offered each semester. Grade only.

288 - Health Perspectives-3 S.H.

Quarter Course: 127.

Introduction to health education and health promotion. Analyzes the foundations of the discipline of health education including theories of health education. Explores the theories of behavior change. Investigates the career opportunities in all health education/promotion settings. Introduces professional organizations and certifications for the field of health education including worksite health promotion. Prerequisite: HHP 204. Offered each semester. Grade only.

311 - Comprehensive School Health Program-2 S.H.

Quarter Course: 411 and 425.

In-depth look at the components of a comprehensive school health program. Examines the role of school staff and health care providers in coordination of health services. Explores the role of school health administrator, the teacher and the school health advisory committee relating to the Pre-K-12 students' health needs and concerns. Prerequisites: HHP 204 and HHP 288. Offered yearly. Grade only.

320 - Health Education in the Elementary Schools-3 S.H.

Designing Pre-8 educational programs consistent with specified program objectives, includes development of logical scope and sequence plan for an elementary health education program. Applying individual or group learning process methods appropriate to given early childhood, elementary and middle school level learning situations. Proper techniques and skills needed to successfully meet the National Health Education Standards and the Minnesota State Graduation Standards. Prerequisite: HHP 204. Offered each semester. Grade only.

326 - Educational Topics/Issues-2 S.H.

Quarter Course: 488.

In-depth study of current and emerging health topics in health education and promotion. Study of bio-psycho-social issues related to such topics as addiction, sexuality education and violence prevention. Students utilize computerized health information retrieval systems, access on-line and other database health information resources. Prerequisites: HHP 204, 288 and HHP 311. Offered yearly. Grade only.

328 - Behavioral Interventions -3 S.H.

Quarter Course: 428 and 425.

Application of theories of behavior change to program planning for the secondary student and adult population. Students utilize a wide range of techniques and strategies for community and secondary health education. Prerequisites: HHP 204, 288; teaching option majors - HHP 320. Offered yearly. Grade only.

345 - Emergency Response for the Professional Rescuer-3 S.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. Offered yearly. Prerequisite: HPER 214 or First Aid and CPR certification.

354 - Principles of Safety Education-2 S.H.

Principles and practices of safety in occupational, community, school and worksite health settings. Course content consists of the elements of Occupational Health and Safety Programs, environment literacy, hazard control and risk management. Prerequisites: HHP 204, 288 and First Aid/CPR Certification. Offered yearly. Grade only.

403 - Epidemiology-3 S.H.

Distribution and patterns of disease including cardiovascular disease, cancer, musculoskeletal disorders, severe trauma or psychological conditions within populations; an examination of the nature of epidemiological research. Prerequisites: HHP 204, 288, 311, BIO 211 and 212. Recommended prerequisite: STAT 110. For non-health majors: Instructor's permission required. Offered each semester. Grade only.

410 - Program Planning in Health Promotion-3 S.H.

Quarter Course: 325.

In-depth study of the process of planning, implementing and evaluating effective health education/promotion programs. Students formu-

late appropriate and measurable program objectives, design educational programs consistent with specified program objectives and exhibit competence in carrying out planned educational programs. Prerequisites: HHP 204 and 288. Offered each semester. Grade only.

425 - Organization and Administration of School Health- 3 S.H.
Organization and administrative aspects of an effective school health education/promotion program pertaining to budgets, personnel, facilities, legal responsibilities, home/school/community communications and the formulation of practical modes of collaboration among educational settings. The creation and the development of scope and sequence as it applies to the Minnesota State Graduation Standards and the National Health Standards. Prerequisites: HHP 204, 288 & 311. Offered yearly. Grade Only.

430 - Public Health-4 S.H.
Quarter Course: 429 and 425.
Explores the foundations of public health practices, including health organization/agency structures, and specific public health concerns of the target populations. The course will have a component similar to a practicum - working with a health-related organization throughout the semester - 2 hours per week minimum. Topics covered in this course could be environmental health, community crisis health and/or public service health. Prerequisites: HHP 204, 288, 311 and 328. Non teaching majors: prerequisites: HHP 403 and STAT 110. Offered yearly. Grade only.

431 - Health Issues Workshop-1-3 S.H.
Explores recent and relevant issues, trends and programming developments in health education/promotion. Designed for teachers, school nurses, school administrators, undergraduates and/or graduate students. Junior or Senior standing. May be repeated for credit. Offered upon demand.

433 - Senior Health Seminar-1 S.H.
Quarter Course: 432.
In-depth school and community health analysis. Review of responsibilities and competencies for entry-level health educators, for Certified Health Education Specialist (CHES) credentials and ethical considerations and standards, as outlined by the Society of Public Health Educators. Completion of professional files: resume, the development of a letter of application, professional presentation for interviews, professional portfolios and skills needed to make one marketable. Prerequisites: HHP 204, 288, 311, 410, BIO 211 and 212. Recommended prerequisites: HHP 403 and STAT 110. Senior standing. Offered yearly. Grade only.

490 - Independent Study in Health-1-3 S.H.
Opportunities for undergraduates to work on an advanced health issue, research or with technology/presentation methods. Prerequisites: Junior or Senior standing, preparation of proposed outline, permission of the major advisor and Department chairperson. Offered upon demand. Grade only.

496- Internship in School and Community Health-10 S.H.
A capstone experience in School and Community Health Education to foster the culmination of skills and abilities necessary for the entry level Community Health Educator in a Health agency or organization. Prerequisites: Senior standing, all major coursework must be completed and approved by the Health faculty, and instructor's permission. P/NC.

Exercise Science

191 - Introduction to Athletic Training-1 S.H.
In-depth view of the National Athletic Trainers' Association's Certification requirements, WSU Program Handbook, policies, procedures, selection and retention requirements, as well as training room observation hours and log. Prerequisite: Department approval required. Offered yearly. Grade only.

205 - Nutrition for Lifetime Wellness-3 S.H.
Introduction of basic nutritional concepts and their application to lifetime wellness. Topics of study will include nutrition standards, nutrients, weight management, eating disorders, life cycle nutrition, and disease prevention. A personal dietary analysis is also included. Offered each semester.

235 - Professional Issues in Exercise Science-3 S.H.
Introductory course for professional socialization and role development, including communication and assessment skills. Ethical issues and professionalism also are discussed. Offered each semester. Grade only.

280 - Techniques of Fitness Programming -2 S.H.
Quarter Course: 349.

Practical experiences in the assessment of fitness components and performance variables, and the knowledge to design training programs for improvement of these factors. Grade only. Offered each semester.

291 - Prevention and Care of Athletic Injuries-2 S.H.
Prevention, evaluation, treatment and taping of athletic injuries. Lectures, demonstrations and laboratory experience. Prerequisites: BIO 211 or PER 251 (for non-Physical Education/Exercise Science majors) and first aid certification for non-Physical Education/Exercise Science majors. Grade only. Offered each semester.

314 - Anatomical Kinesiology- 2 S.H.
The structure and function of the human body will be systematically studied as it applies to human movement, exercise and sport. Prerequisites: BIO 211 and 212 or equivalent. Offered each semester. Grade Only.

340 - Physiology of Exercise-4 S.H.
Major physiological systems of the human body and their responses to acute and chronic exercise. Energy systems of exercise, physiological support systems, exercise prescription, and methods of physical training are addressed. Lecture and lab. Prerequisites: BIO 212. Offered each semester. Grade only.

344 - Electrocardiography-3 S.H.
Quarter Course: 456.
Theory and practice in the interpretation of the electrocardiogram, cardiovascular physiology and special characteristics of ECGs for certain cardiovascular diseases. Lecture, Lab, ECG case study review. Offered yearly. Prerequisite: HHP 340. Grade only.

360 - Nutrition for the Physically Active-3 S.H.
Nutritional requirements for the active individual and athletes. Topics of study will include carbohydrate, protein, fat, vitamin, mineral and water requirements of active populations, as well as the use of nutritional ergogenic aids for performance enhancement. Prerequisite: HHP 205 and 340. Offered each semester. Grade only.

361 - Practicum in Cardiopulmonary Rehabilitation-3 S.H.
A one hundred hour field experience in working directly with populations that have cardiopulmonary disease. Seventy-five hours in WSU's Phase III Program and twenty-five hours in Winona Community Memorial's Phase II rehabilitation program. Prerequisite: HHP 380, consent of instructor and current certification in First Aid and CPR. Grade only.

362 - Athletic Training Practicum-1-4 S.H.
Upon successful completion of the application procedure, students will enroll in one semester hour each semester for four semesters in HHP362. Students will obtain clinical education experience with certified athletic trainers in traditional athletic training settings (university and high school athletic training facilities) and in hospital or clinic settings as scheduled by the Athletic Training Program Director. Students will be evaluated each month and will accomplish designated clinical proficiencies each semester enrolled. Prerequisites: program acceptance, liability insurance, current certification in First Aid and CPR, and instructor's permission.

363- Practicum in Worksite Health Promotion-3 S.H.
Practical experience as a pre-professional in worksite health promotion, with an emphasis on behavior change facilitation and a variety of in-class and self-directed programming and exercise leadership experiences. Offered each semester. Grade only. Prerequisite: Consent of instructor and current certification in First Aid and CPR.

370 - Mechanical Kinesiology -3 S.H.
Quarter Course: 314 and 470.
Mechanical principles will be systematically studied as they apply to human movement. Application of these principles will be used to understand and improve the efficiency, efficacy, and safety of movement. Prerequisite: HHP 235 and 314. Offered each semester. Grade only.

380 - Laboratory Methods in Exercise Science-3 S.H.
Quarter Course: 458.
A series of experiments designed to achieve competency in research methods, procedures and instruments typically used in human performance laboratories. Lecture and lab. Prerequisites: HHP 235, 340 and STAT 110 or STAT 210. Offered each semester. Grade only.

385 - Senior Seminar: Cardiopulmonary Rehabilitation-3 S.H.
Quarter Course: New Course.

Focuses on the analysis of the relationships between concepts in cardiopulmonary rehabilitation. Emphasis is placed upon helping students integrate these concepts into their professional procedure via major paper, case studies and special presentations. Prerequisites: Senior standing and instructor's permission. Offered yearly.

391 - Injury Recognition of the Upper Body-3 S.H.

Advanced course in the evaluation and recognition of athletic injuries from the lumbar spine upward. Lecture and lab. Prerequisites: HHP 191, HHP 291 and HHP 370. Offered yearly. Grade only.

392 - Injury Recognition of the Lower Body-3 S.H.

Advanced course in the evaluation and recognition of athletic injuries from the pelvic region down. Lecture and lab. Prerequisite: HHP 391. Offered yearly. Grade only.

393 - Therapeutic Modalities-3 S.H.

Exploration of pain theories, inflammation and the injury cycle. Physiological and mechanical theories of therapeutic modalities are defined and the effects of therapeutic modalities on athletic injuries throughout the injury cycle are applied. Lecture and lab. Prerequisites: BIO 211 and BIO 212. Offered yearly.

420 - Clinical Exercise Testing and Prescription-4 S.H.

Quarter Course: 457.

Methods, procedures and techniques of functional and diagnostic exercise stress testing will be emphasized. For normal, cardiopulmonary, and other special populations special consideration will be given to referral procedures, contraindications, protocol selection, equipment selection, data interpretation, follow-up procedures and exercise prescription. Lecture and lab. Offered yearly. Prerequisite: HHP 344 and 380. Grade only.

445 - Medical Aspects of Exercise-3 S.H.

Quarter Course: 451.

Selected topics regarding the science and medicine of sports and exercise participation. Areas to be covered include pharmacologic aspects, overtraining and overreaching, the effect of exercise on reproductive function, and exercise for special populations. Offered each semester. Prerequisite: HHP 340 and NURS 366. Grade only.

490 - Independent Study in Exercise Science-1-4 S.H.

Opportunity for undergraduates to work independently. Prerequisites: Junior or Senior standing, preparation of proposed outline and major advisor's permission. Offered each semester. Grade only.

491 - Therapeutic Treatment and Rehabilitation of Athletic Injuries-3 S.H.

Quarter Course: 394.

In-depth view of pain theories, their control and the body's psychological and physiological responses. Indications and applications of therapeutic modalities and rehabilitation exercises will be investigated and developed into comprehensive rehabilitation programs. Lecture and lab. Prerequisites: HHP 340, HHP 370, HHP 392 and HHP 393. Offered yearly. Grade only.

492 - Administration of Athletic Training-3 S.H.

Designed to prepare the student athletic trainer for the behind-the-scenes duties that are required to ensure that an athletic room is functioning efficiently and properly. Areas covered include liability, budgeting, record-keeping and other administrative areas. Prerequisite: HHP 491. Offered yearly. Grade only.

493 - Worksite Health Promotion-3 S.H.

Role of business knowledge and skills in worksite health promotion. Focuses on business policy, ethics, management and marketing in health promotion organizations. Prerequisite: HHP 410. Offered yearly. Grade only.

494 - Therapeutic Interventions-3 S.H.

Anatomical review and discussion of mechanisms, specific injuries, their acute treatment and referral process for conditions relating to the head, face, ear, eye, nose, throat thorax, abdomen and skin. Intervention techniques for athletes suffering physical, emotional, or psychological illnesses will be discussed. Commonly used drugs, their actions, side effects and action for abuse and testing will also be included. Prerequisite: HHP 392, PSY 210.

497 - Internship in Cardiopulmonary Rehabilitation-8 S.H.

A capstone experience to foster the culmination of skills and abilities necessary for the entry-level cardiopulmonary clinical experience physiologist. Six hundred hours of clinical experience are required in the ACSM certified exercise specialist learner outcomes.

Internship clinical sites are nationally located and an internship handbook details application, registration, and evaluation procedures. Prerequisites: senior standing, liability insurance, current CPR and First Aid certification, all major coursework must be completed, and instructor permission. P/NC

498 - Internship in Athletic Training-4 S.H.

A capstone experience to foster the culmination of skills and abilities necessary for the entry-level athletic training professional. With an in-depth view of an athletic trainer's role in the Sportsmedicine clinic with opportunities to interact with physicians, physician assistants, physical therapists, other personnel and a diverse patient population under the direct supervision of a NATABOC Certified Athletic Trainer. Opportunities for special projects, presentations and viewing surgeries may also be available. An internship handbook details admission, registration, and evaluation procedures.

Prerequisites: senior standing, liability insurance, current CPR and First Aid certification, all major coursework must be completed, and instructor's permission. P/NC

499 - Internship in Worksite Health Promotion-8 S.H.

A capstone experience in Worksite Health Promotion to foster the culmination of skills and abilities necessary for the entry-level worksite health promotion exercise physiologist. ACSM and AWHP standards require a full semester of field experience. Prerequisites: senior standing, liability insurance, current CPR and First Aid certification, all major coursework must be completed, and instructor's permission. P/NC

HISTORY

Minne Hall, Room 212, (507) 457-5400

Yard (Chairperson), S. Byman, M. Byman, Campbell, Hyman, Paino, Schmidt, Sobiesk.

Chairperson's email: ayard@vax2.winona.msus.edu

Department's email: histdept@vax2.winona.msus.edu

Faculty

Marianna Byman, Assistant Professor; B.A., Baylor University; M.S., Winona State University; D.A., University of North Dakota-Grand Forks; 1988 -

Seymour Byman, Professor; B.A., University of Illinois; M.A., Roosevelt University; Ph.D., Northwestern University; 1970 -

John Campbell, Assistant Professor; B.A., Wesleyan University; M.A., Ph.D., University of Minnesota-Twin Cities; 1996 -

Colette Hyman, Professor; B.A., Brown University; M.A., Ph.D., University of Minnesota-Twin Cities; 1990 -

Troy Paino, Assistant Professor; B.A., Evangel College; J.D., Indiana University School of Law; M.A., Ph.D., Michigan State University; 1997 -

Gregory G. Schmidt, Professor; B.A., M.A., Ph.D., University of Illinois-Urbana; 1984 -

Norman Sobiesk, Professor; B.A., University of Illinois; M.A., University of Kansas; Ph.D., University of Wisconsin-Madison; 1970-

Alexander Yard, Associate Professor; M.A., University of Missouri-St. Louis; A.B., A.M., Ph.D. Washington University (St. Louis, Missouri); 1986 -

History Program

The History Department offers a B.A. major in history and a B.A. minor in history. Additionally, the Department participates in the Social Science/History Program for secondary-level social studies teachers. The Department also advises pre-law students and oversees the Law and Society Program.

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 programs require students to take courses in the histories of Europe and the United States, and select among courses in the histories of Africa, Asia and Latin America. Majors and minors take courses at both the introductory and advanced levels, as well as the course in Historical Research Methods and Historiography which instructs them in mysteries of historical research, interpretation and writing. In addition, History majors take the advanced writing course offered by the English Department. As a capstone experience, majors complete their course of study in a Senior Seminar which requires production of an original research project and enables them to practice, reinforce and expand upon what they learned in the program. History programs, providing a broad range of academic experiences, enhance students' intellectual skills and understanding of the present, while promoting informed citizenship in a rapidly changing world.

History programs provide reliable preparation for any career prizing analytical ability, clear thinking and strong communication skills. The programs also form a solid basis for graduate study in law, history and other Liberal Arts fields. The department strongly recommends study of foreign languages to students who are interested in studying history at the graduate level.

Paralegal Program

The History Department coordinates and administers the B.S. Paralegal Program which leads to careers in law, business and government. For more information about the Paralegal Program, see Paralegal Program in this catalog.

Secondary-level Social Studies and History Teaching

Students interested in teaching history at the high school and middle school levels need to complete a broad field program in history and the social sciences in preparation for licensure as a "social studies" teacher. There is no license in Minnesota for teaching only history. The Minnesota Board of Teaching, and not Winona State University, defines the scope of teaching licenses. For the broad field program for social studies teachers, refer to B.S. Social Science/History (Teaching), which is described in the catalog section dedicated to interdisciplinary programs. The education component of the program, called the Professional Education Sequence, is described in the catalog entry of the Education Department.

Law and Society Program

The History Department manages the Law and Society program designed for students interested in attending law school as well as students interested in a vigorous liberal arts degree focused on the law. For more information, consult the Law and Society Program in this catalog.

Department Scholarships and Awards

The Department of History offers four scholarships each year. Junior and senior History majors with a strong interest in historical research may apply for the Jederman Scholarship established in the memory of Frederick A. Jederman who taught history at Winona State from 1924 to 1964. History and Paralegal majors are eligible for the Marvin and Muriel Palacek Scholarship, honoring Dr. Marvin Palacek, who taught history at Winona State from the early 1960s to the middle of the 1980s. Paralegal students may apply for the Association of Paralegal Students Alumni Scholarship established by graduates of the Paralegal Program. History majors and minors, Paralegal majors and Social Science/History majors are eligible to compete for the Thielen Memorial Scholarship, which honors a late member of the department faculty. Contact the Department office for further information.

The Department also offers the annual Susan H. Dahl award for the best paper(s) written in the senior research seminar. The recipient must have written the paper while a student in the seminar but need not be a history major. Faculty members nominate students' papers, and a Department committee makes the award. The Dahl award includes a cash prize.

Museum Internship Opportunities

The Department offers for-credit internship opportunities in the Winona County Historical Society museum and other historical museums for students interested in exploring careers in the field of public history. Contact the Department for further information.

Program Assessment

The History Department now requires all students enrolling in the History major program to participate in a program assessment initiative. Designed to measure the history major's effectiveness, the assessment plan uses student work to judge whether or not the history major is promoting the Department's educational goals. The assessment initiative, in other words, provides the Department the means to measure and improve the program's educational effectiveness; it is not another way to grade individual student performance. Students are expected to complete several brief written exercises when they declare History as their major, maintain a portfolio or file of examples of their coursework, and complete several exit exercises just before graduation. A Department committee assesses the program's effectiveness by examining how the quality of students' work changes over their time as a History Major. For more information concerning the assessment initiative, contact the History Department Office.

In the assessment plan, the Department declares its conviction that the major program should produce the following educational goals, results or learning outcomes, divided into three broad categories:

Skills

- Enhance students' ability to critically read and evaluate historical scholarship.
- Develop students' ability to understand the main lines of historiographic debate concerning a topic and frame new questions.
- Develop students' ability to engage in historical research focused on primary sources.
- Develop students' ability to express their ideas clearly in written form.
- Develop students' ability to express their ideas in oral presentations.
- Develop students' capacity for independent, critical thought.
- Develop in students the understanding that history is actually an on-going interpretive debate and not a series of short answers.

- Provide training that is sufficiently rigorous to permit qualified and motivated students to succeed in graduate programs in history.

Knowledge

- Develop students' understanding of both long-term trends and discrete events in the history of the United States, Europe and at least two other cultural groups.
- Develop students' ability to consider the past in terms of both change and continuity.
- Develop students' ability to identify and explain change over time.
- Develop students' understanding of the ways in which change affects different groups in different ways.

Values

- Enhance students' ability to use the skills promoted by the history program in their life and career plans.
- Enhance students' toleration of diverse peoples and cultures.
- Enhance students' ability to act as responsible citizens who make informed, reasoned judgements.
- Develop students' commitment to a life-long search for learning and truth.
- Promote among students a collaborative work and learning ethic.

Additional Requirements

Coursework below a grade of "C" in 300- and 400-level courses do not count toward completion of the History major or minor program.

Pass/No Credit Courses

No history course can be taken on a P/NC basis, with the exceptions of internships and institutes.

Transfer Students

For B.A. Major History, transfer students must complete at least 18 semester hours of WSU history course work in addition to the Senior Seminar. Transfer coursework completed on a P/NC basis is not accepted for the WSU History major or minor. Transfer students who wish to complete the B.A. Minor History must complete at least 12 semester hours in WSU History coursework.

B.A. MAJOR - HISTORY

48 S.H (No Minor Required)

REQUIRED COURSES (28 S.H.)

Western Civilization Sequence (6 s.h.)

Any two of the following:

- 120 Western Civilization to 1500 (3)
- 121 Western Civilization, 1500 to 1815 (3)
- 122 Western Civilization, 1815 to Present (3)

Students can substitute 125 Classical History for 120 Western Civilization to 1500

United States History Sequence (6 s.h.)

- 150 United States History to 1865 (3)
- 151 United States History Since 1865 (3)

Different Culture History Sequence (6 s.h.)

Any two of the following:

- 123 East Asian Civilization (3)
- 165 Latin American History (3)
- 170 African Civilization (3)
- 233 History of Mexico (3)

English (3 s.h.)

- 210 Advanced Expository Writing (3)

Other Required History Courses (8 s.h.)

- 100 Introduction to History (1)
- 298 Historical Research Methods and Historiography (3)
- 495 Senior Seminar (4)

ELECTIVES (20 S.H.)

History majors must take 20 s.h. in History electives at the 300 and 400 levels. Electives are subject to an advisor's approval. Students must take at least 3 s.h. in each of the three sequence areas - namely European, United States and Different Culture areas. The courses, 397 Topics in History and 499 Independent Readings in History, are counted in the sequence area the Department deems appropriate. History majors cannot count Paralegal Sequence courses (HIST 370, HIST 381, HIST 372, HIST 373, HIST 374, HIST 375, HIST 376, HIST 377, HIST 380 and HIST 383) as electives in the History major program.

B.A. MINOR - HISTORY

27 S.H.

REQUIRED COURSES (15 S.H.)

Western Civilization Sequence (6 s.h.)

Any two of the following:

- * 120 Western Civilization to 1500 (3)

- * 121 Western Civilization, 1500 to 1815 (3)
 - * 122 Western Civilization, 1815 to Present (3)
- Students can substitute 125 Classical History for 120 Western Civilization to 1500

United States Sequence (6 s.h.)

- * 150 United States History to 1865 (3)
- * 151 United States History Since 1865 (3)

Different Culture History (3 s.h.)

Any one of the following:

- * 123 East Asian Civilization (3)
- * 165 Latin American History (3)
- * 170 African Civilization (3)

Research Requirement (3 s.h.)

- 298 Historical Research Methods and Historiography (3)

ELECTIVES (9 S.H.)

Students must select 9 s.h. in coursework at the 300 and 400 levels with the approval of a History Department advisor. The Department suggests students consider taking all the elective courses in one sequence area. History minors may not count Paralegal Sequence courses (HIST 370, HIST 371, HIST 372, HIST 373, HIST 374, HIST 375, HIST 376, HIST 377, HIST 380 and HIST 383) as electives in the History minor program.

- * Course may be used to satisfy certain General Education requirements.

History Course Descriptions

All courses must be taken on a Grade Only basis.

100 - Introduction to History - 1 S.H.

An introduction to the study of university-level history. It will enable students to better identify and understand historical arguments and historians' uses of evidence. The course will also acquaint students with both the writing and citation styles commonly used in the field and the departments' program assessment plan. Offered yearly. Prerequisite: None

120 - Western Civilization to 1500-3 S.H.

A survey of Western traditions and institutions from their beginnings in Egypt and Mesopotamia through Greece, Rome and the Middle Ages. Grade only. Offered every semester.

121 - Western Civilization 1500-1815-3 S.H.

A survey of the European Renaissance, Protestant Reformation, development of the nation state, the Enlightenment, Commercial and Industrial Revolution, the French Revolution and the

Napoleonic era. Grade only. Offered every semester.

122 - Western Civilization 1815 to Present-3 S.H.

A survey of European traditions and institutions from the fall of Napoleon to the present, stressing the Industrial Revolution, nationalism, imperialism, the rise of totalitarianism, World War II, the Cold War and post-Cold War problems. Grade only. Offered every semester.

123 - East Asian Civilization-3 S.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 reconstruction and post-communist economy, and Japan's re-emergence as a world power. Grade only. Offered yearly.

125 - Classical History-3 S.H.

The history of Greece from Homeric time of Plato to the Roman Republic. Grade only.

150 - United States History to 1865-3 S.H.

Quarter Courses: 230 and 231.

A survey of United States history from prehistoric times to the American Civil War. Special emphasis is placed on political developments and public policy, the origins and consequences of both slavery and ethnic, cultural and regional diversity and conflict. Also emphasized is the transformation of the social and economic systems. Grade only.

151 - United States History Since 1865-3 S.H.

Quarter Courses: 232 and 231.

A survey of United States history since the American Civil War with special emphasis on post-Civil War Reconstruction, late 19th-century economic and social developments and 20th-century reform movements. Additionally, foreign policy and the overseas expansion of the U.S. economy receive attention, as do the Cold War and post-Cold War developments. Grade only.

165 - Latin American History-3 S.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 placed on Argentina, Brazil, Chile and Mexico. Grade only.

170 - African Civilization-3 S.H.

A survey of African history from prehistoric times to the present. The emphasis is on African social, cultural and political history. The periods of study include Africa in the ancient world, medieval Africa, the slave trade, the era of European colonialism, the rise of nationalism and independence movements and contemporary Africa. Grade only.

210 - American Military History-3 S.H.

Quarter Course: 135.

A survey of the military's role and American wars from the colonial period through the Vietnam and post-Vietnam eras. Grade only.

215 - Minnesota History-3 S.H.

History of the land and people of Minnesota. Emphasis is on social, cultural, economic and political history of indigenous and immigrant groups in Minnesota during the 19th and 20th centuries. Grade only. Offered as needed.

220 - Introduction to African American History - 3 S.H.

This course will introduce students to African American history. It examines the full breadth of African American history, starting with Africa in the years before the international slave trade, continuing on with the nature of African life in America during the colonial period and maturation and destruction of slavery in the 19th Century. History majors and minors may count this class among their history electives.

233 - History of Mexico-3 S.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. Grade only.

235 - History of the American Indian-3 S.H.

Traces the history of 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 atti-

tudes and stereotypes surrounding natives and examines their growth as a political entity in American history. Prerequisites: ENG 111 or instructor's permission. Grade only.

240 - History of Christianity-3 S.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 structures of various historical ages. Grade only.

295 - Sophomore Seminar - 2-3 S.H.

An in-depth study of the current state of historical understanding of selected topics. The department will invite students to take the course based on their performance in 100-level history classes.

Offered yearly. Enrollment limited to 20 students. Prerequisite: any 100-level history course and permission of the department.

298 - Historical Research Methods and Historiography-3 S.H.

An introduction to historical research and criticism that exposes students to the sources, resources and techniques of research and evaluation of research as well as divergent historiography traditions.

Prerequisites: History Major or Minor standing or Social Science/History Major standing and ENG 111. Limited to 20 students. Grade only.

360 - Introduction to Historical Museums- 3 S.H.

This course provides students with an overview of the field of Historical Museums and Public History. It will examine the history of museums, museum management, collections care, management of historical libraries and archives, fundraising and budgeting and the development of exhibits and public programming. It will also survey opportunities available in Public History. Required student projects will make use of the resources of the Winona County Historical society. Prerequisites: History 150 and 151. Offered as needed.

390 - Historical Museum Internship 3-15 S.H.

Placement in the Winona County Historical Society Museum or other historical museum for the purpose of experience and training in the field of public history. Prerequisite: History 360 and permission of the department. Internship credits may be counted toward completion of the history major and minor.

397 - Topics in History-1-3 S. H.

In-depth study of current topics and concern in American society and the historical profession. Offered on demand. With different topics, can be repeated. Grade only.

495 - Senior Seminar-4 S.H.

Quarter Course: 490-491.

In-depth study and research on selected topics offered in the spring semester. The seminar and students' research projects build upon work completed in a companion, advanced level course offered in the fall semester. Each spring, before pre-registration for the following fall, the Department identifies the companion course(s) for the following year. Contact a History Department academic advisor for more information about the companion course(s). The Department strongly recommends, but does not require, completion of the companion course before enrolling in the Senior Seminar. Prerequisite: History or Social Science/History major standing and Senior standing or instructor's permission. Grade only.

Advanced Sequence in Different Culture History

320 - North American Indian Civilization-3 S.H.

This course examines important issues in the history of North American Natives: prehistoric interactions among Native groups, 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: HIST 235. Grade only. Offered alternate years.

341 - Modern Japan-3 S.H.

The course traces and analyzes the principal 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-World War II revival. Prerequisites: HIST 123 and ENG 111 or instructor's permission. Grade only. Offered every other year.

461 - Latin American Social Revolution-3 S.H.

An analysis of Latin America's major revolutionary movements of the 20th century. Special emphasis on Mexico, Bolivia, Cuba and Central America. Prerequisite: HIST 165 or instructor's permission. Grade only.

469 - History of Brazil-3 S.H.

Brazilian history from European discovery to the present. The course emphasizes study of exploration and colonization, the development of slavery and its abolition, and Brazil's experience with industrialization and world power status. Prerequisite: HIST 165 or instructor's permission. Grade only.

Advanced Sequence in United States History**315 - Women in U.S. History-4 S.H.**

Quarter Courses: 316 and 317.

A survey of the history of women in the United States, from the colonial period to the present. Topics to be covered include changing ideas about women and the changing nature of the family, sexuality, women's political activity, and paid and unpaid work. The course also examines the way in which gender has combined with other social definitions - such as race, ethnicity and age - to shape the experiences of both men and women in U.S. history. Prerequisites: HIST 150 or HIST 151 and ENG 111. Grade only. Offered yearly.

325 - American Diplomatic History-3 S.H.

Traces and analyzes the major developments in modern American diplomacy. The course 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: HIST 150 or HIST 151 or instructor's permission. Grade only. Offered as needed.

336 - History of American Sports - 3 S.H.

A historical look at the place and value of sport in American culture.

365 - American Legal History-3 S.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: HIST 150 and HIST 151 or instructor's permission. Grade only. Offered yearly.

447 - The Vietnam War-3 S.H.

A historical survey of the Vietnamese War with the growing American 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: HIST 151 or instructor's permission. Grade only. Offered every other year.

476 - The American Revolution-3 S.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 creations, and ratification of the Constitution of 1787. Prerequisites: HIST 150 or instructor's permission. Grade only. Offered every other year.

477 - The Age of Jackson-3 S.H.

Quarter Course: 478.

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 slavery, the South and slavery, ante-bellum reform movements and Romanticism. Prerequisite: HIST 150. Grade only. Offered as needed.

478 - The Old South

This course examines many issues, topics, and themes central to the History of the American South (ca. 1800 to 1860). Among the key topics that we look at are: the colonial origins, the origins and evolution of planter culture, the nature of yeomen society, the diverse lives of southern women, the economics of slavery, slave life and culture, the politics of slavery and the coming of the Civil War, and the rise and fall of the Confederacy.

479 - The Civil War and Reconstruction-3 S.H.

Explores the culture and society of ante-bellum America, the origins of the war, the political and military development of the war. The course will then explore Reconstruction of the Southern political, social and economic orders and the southern counter-revolution of the 1870s. Prerequisite: HIST 150 or instructor's permission. Grade only. Offered as needed.

480 - Gilded Age America (1877-1900)-3 S.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 counter-attacks and progressive, radical opposition to the new economic order in rural and urban settings. It also explores 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: HIST 151 and ENG 111 or instructor's permission. Grade only. Offered every other year.

481 - American Westward Expansion-3 S.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 contract to the present. Prerequisites: HIST 150 and HIST 151 or instructor's permission. Grade only. Offered as needed.

483 - The Progressive Era and the "New Era" Twenties (1901-1929)-3 S.H.

Consideration will be given to the cultural and economic crisis of the 1890s, the progressive impulse, varieties of progressive reform, progressive foreign policy and World War I, postwar adjustment problems and select social phenomena of the Twenties. The course will conclude with study of Herbert Hoover's economic and political vision. Prerequisite: HIST 151 or instructor's permission. Grade only. Offered every other year.

484 - Depression, New Deal and War (1929-1945)-3 S.H.

The course explores the Great Depression which began in 1929 with emphasis on the economic, social and psychological causes and consequences, Herbert Hoover's responses to it and FDR's New Deal Revolution, and the role of the United States in World War II and developments on the home front. Offered every other year. Prerequisite: HIST 151 or instructor's permission. Grade only.

485 - Contemporary America 1945-Present-3 S.H.

The course explores the causes and consequences of the Cold War including McCarthyism, U.S. involvement in the Korean War, and selected post-war problems in foreign policy, mass society and social alienation. It also explores the reforms and social movements of the Great Society era and the development of contemporary conservatism and consumer-oriented neo-liberalism. Prerequisite: HIST 151 or instructor's permission. Grade only. Offered every other year.

486 - American Intellectual and Cultural History-3 S.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: HIST 150 or HIST 151 or instructor's permission. Grade only. Offered yearly.

488 - American Constitutional History-3 S.H.

A study of the origins, growth and development of the United States Constitution in the context of American social and political history. Prerequisite: HIST 150 or HIST 151 or instructor's permission. Grade only. Offered yearly.

Advanced Sequence in European History**330 - Psycho-history-3 S.H.**

The application of psychoanalytical 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 theory to history. Grade only. Offered as needed.

335 - The Holocaust-3 S.H.

A historical study and analysis of the Nazi Holocaust from 1933 to 1945

350 - The History of Attitudes Toward Death-3 S.H.

A look at the attitudes toward death of various societies. Prerequisites: ENG 111 or instructor's permission. Grade only.

355 - European Intellectual and Cultural History-3 S.H.

a study of the history of the development and basic concepts in European religious, philosophical, political, legal, scientific and social thought and their impact on Western culture.

401 - Ancient Rome-3 S.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: HIST 120 or instructor's permission. Grade only.

403 - Middle Ages-3 S.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: HIST 120 or instructor's permission. Grade only. Offered as needed.

408 - Renaissance-3 S.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. Prerequisites: HIST 120 and HIST 121 or instructor's permission. Grade only. Offered as needed.

409 - Reformation-3 S.H.

A study of the religious background of 16th-century Europe. The rise of Lutheranism, Calvinism, Anabaptism and Anglicanism. The Catholic Counter-Reformation. Prerequisite: HIST 120 and HIST 121 or instructor's permission. Grade only. Offered as needed.

412 - French Revolution and Napoleon-3 S.H.

Quarter Course: 406G.

Intellectual, cultural, economic and political origins of the French Revolution, a decade of revolution, the Napoleon Era and the legacy of the revolution. Prerequisite: HIST 121 or instructor's permission. Grade only. Offered as needed.

415 - 20th-Century Europe-3 S.H.

The peace settlements, the League of Nations, the rise of totalitarianism, World War II. This course also emphasizes the Cold War, de-colonization, collapse of Soviet Communism, and the re-emergence of nationalism and ethnic conflict, with special emphasis on Yugoslavia. Prerequisites: HIST 122 and HIST 151 or instructor's permission. Grade only. Offered as needed.

417 - Hitler and Nazi Germany-3 S.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: HIST 122 or instructor's permission. Grade only. Offered as needed.

421 - Tudor and Stuart England-3 S.H.

The transition from medieval to modern England, the Reformation, the Age of Elizabeth, and the constitutional and social conflicts of the 17th century. Prerequisite: HIST 121 or instructor's permission. Grade only. Offered as needed.

423 - 20th-Century England-3 S.H.

England in the 20th century from the height of imperial power and World War I to a Socialist government, cold War and the rise of late 20th-century conservatism. Prerequisite: HIST 122 or instructor's permission. Grade only. Offered as needed.

434 - Soviet Russia (1905-Present)-3 S.H.

The theory of Communism and its practice in Russia and the role of the Soviet Union in world affairs. The course will also discuss the downfall of Soviet Communism and the Yeltsin era. Prerequisites: HIST 122 and HIST 151 or instructor's permission. Grade only. Offered as needed.

440 - World War II-3 S.H.

An effort to examine the relations between political leadership and military strategy. Brief description of main events. Prerequisites: HIST 122 and HIST 151 or instructor's permission. Grade only. Offered as needed.

Paralegal Sequence

370 - Legal Research and Writing I-2 S.H.

Quarter Course: 370.

The student will become acquainted with commonly used terminology, the need for precision in meaning, and how courts interpret documents; and techniques of legal research, the process of judicial review, the extent of legal reporting, and methods of researching court decisions. Students will draft legal briefs and legal memoranda. Prerequisites: admission to the Paralegal Major and advanced sophomore standing. Grade only. Offered yearly.

371 - Substantive Law and Ethics I-2 S.H.

Students will learn the basic rules of contract law, real property law,

torts, including workers' compensation, and legal ethics, and will be expected to practice their skills in legal research and writing.

Prerequisite: HIST 370. Grade only. Offered yearly.

372 - Legal Research and Writing II-2 S.H.

The students will expand use of research and writing techniques gained in Legal Research and Writing I by drafting deeds, leases, negotiable instruments, business agreements, corporate minutes and by-laws, wills and researching issues that are relevant to these topics. Students will continue to draft legal briefs and memoranda reflecting their research findings. Prerequisite: HIST 371. Grade only. Offered yearly.

373 - Adversary System: Civil Procedure-2 S.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 in the search for justice. Prerequisite: HIST 372. Grade only. Offered yearly.

374 - Evidentiary Rules-2 S.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. Prerequisite: HIST 373. Grade only. Offered yearly.

375 - Substantive Law and Ethics II-3 S.H.

Students will study the basic elements of probate law, negotiable instruments, bankruptcy, landlord-tenant law with extensive coverage of family law (divorce, separation, and paternity), including the study of motion practice and the Minnesota Rules of Family Court Procedure, pre-trial discovery and conflict resolution techniques as well as ethical issues associated with each. Prerequisite: HIST 374. Grade only. Offered yearly.

376 - Adversary System: Criminal Procedure-2 S.H.

Supplements the course on the Adversary System - Civil and covers criminal pleadings, the grand jury system, criminal pretrial discovery, jury instructions, post-trial sentencing, requirements of a fair hearing and constitutional legal defenses. Prerequisite: HIST 374. Grade only. Offered yearly.

377 - Practical Legal Investigation Techniques-3 S.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 also will become acquainted with the technique of working with witnesses. Prerequisites: admission to the Paralegal Major, HIST 365, HIST 370 and HIST 371. Grade only. Offered yearly.

380 - Paralegal Internship-12 S.H.

Field placement in a selected organization for the purpose of experience and training as a professional paralegal. Prerequisites: HIST 370, HIST 371, HIST 372, HIST 373, HIST 374, HIST 375, HIST 376 and completion of portfolio. P/NC only.

381 - Paralegal Topics and Issues - 3 S.H.

This course is an approved elective for Paralegal majors taken in conjunction with the program-required internship. In addition to selected readings on some aspect of law in contemporary American society, students will engage in a weekly discussion via e-mail with the instructor and fellow students on topics relating to the readings and their internship experience. Students will be evaluated both by the quality of their contribution to these discussions and a final paper that grows out of the readings, internship and e-mail discussions.

383 - Paralegal Institute-1-3 S.H.

Quarter Course: 380.

The Paralegal Institute will cover various specialized topics which directly relate to areas of the paralegal profession. The specialized institutes will be offered for 1-3 credits and may be repeated to a maximum of 3 credits toward the WSU Paralegal degree. P/NC only.

HONORS PROGRAM

See Special Academic Programs for more information.

INTERDISCIPLINARY PROGRAM: PROFESSIONAL STUDIES

Somsen Hall, Room 109, (507) 457-5080
Christensen (Chairperson); Bentley, MacDonald

Faculty

Charles Bentley, Advisor/Coordinator, Adult, Continuing Education and Extension; B.A., Macalester College; M.S., Winona State University; 1968 -
Pauline Christensen, Professor; Director of Graduate Studies; Adult, Continuing Education & Extension; B.S., Iowa State University of Science and Technology; M.S., Winona State University; Ph.D., University of Minnesota-Twin Cities; 1973 -
Ann MacDonald, Coordinator/Customized Training; Adult, Continuing Education & Extension; B.S., N.E. Missouri State University; 1998 -

This program allows students 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 students a great deal of flexibility and allows for intellectual growth in a variety of academic areas.

Professional Studies 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 major which will be reviewed by the ACEED advisor and retained in the student's file.

B.A. MAJOR PROFESSIONAL STUDIES: GENERAL OPTION

48 S.H. Upper Division (300 and 400 level) Courses

It is expected that all course prerequisites will be completed. Students may declare up to two minors within the requirements of this major. A maximum of 9 credits applying to the major may be taken on a P/NC basis. All other WSU policies apply.

REQUIREMENTS:

Students will complete the standard WSU General Education Program, 48 upper-division credits, electives to reach a minimum of 128 credits, and will have on file a statement of goals and objectives for the major.

B.A. MINOR – PROFESSIONAL STUDIES

21 S.H.

This program allows students to create a minor utilizing several departments to meet their particular educational goals or to create a minor from departments where a minor is not currently available. The credits in the professional studies minor must not duplicate any other courses in the student's program and cannot count any place except in the minor.

REQUIRED COURSES

15 s.h. must be upper division (300/400 level) courses
6 s.h. may be any level

ADDITIONAL REQUIREMENTS

Students declaring the Professional Studies Minor must present to the ACEED advisor a statement describing their reasons for wanting this minor and the learning outcomes to be gained from their particular program of study.

PROFESSIONAL STUDIES AVIATION MAINTENANCE MANAGEMENT OPTION

128 - 139 s.h. (No Minor Required)

Pasteur Hall, Room 114D, (507) 457-5260
Dr. George Bolon, Advisor

Faculty

George Bolon, Professor, Physics; B.S., M.S., Oregon State University; Ph.D., University of Utah; 1968 -

The Aviation Maintenance Management Option prepares students to manage systems and technicians within the aviation maintenance industry. Graduates with this option can meet the needs of air carriers, the federal government, corporate aviation and commercial aviation.

This option is OPEN ONLY TO STUDENTS who have completed the aviation maintenance program at the Red Wing/Winona Technical College. Others may be admitted by petition. Forty (40) credits will transfer from the technical college applicable toward this option.

There are 5 aspects to this degree program: (1) general education; (2) the management core; (3) the advanced aviation courses; (4) computer understanding and application; and (5) the upper-division electives.

1. General Education (48 S.H.)

Basic Skills (9 S.H.)

Humanities (6 S.H.)

Natural Sciences (7 S.H.)

MATH 140 Applied Calculus (3)

PHYS 201 General Physics I (4)

Social Science (6 S.H.)

PSY 210 General Psychology (3)

ECON 201 Principles of Microeconomics (3)

Different Culture (6 S.H.)

Allied Studies (3 S.H.)

Additional requirements for certification (11 s.h.)

STAT 110 Fundamentals of Statistics (3) OR

DIS 220 Business Statistics (3)

PHYS 202 General Physics II (4)

CHEM 212 Principles of Chemistry I (4)

2. Management (18 S.H.)

BUSA 301 Business Law (3)

DIS 320 Intermediate Business Statistics (3)

DIS 362 Management Information Systems (3)

MGMT 315 Principles of Management (3) OR

MGMT 317 Management of Human Resources (3)

POM 334 Production/Operations Management (3)

Marketing (3 S.H.)

MKTG 300 Principles of Marketing (3)

3. Aviation (12 S.H.)

PHYS 200 Fundamentals of Aviation (3)

PHYS 383 Air Traffic Control (3)

PHYS 387 Flight Safety (3)

PHYS 388 Legislative and Legal Aspects (2)

4. Computer Application (6 S.H.)

CS 130 Introduction to BASIC Programming (3) OR

BUSA 312

Any Computer Science elective and/or

DIS 202 Microcomputers in Business (3)

5. Upper-Division Electives (15 S.H.)

These electives must be approved by AWS faculty advisor.

6. Technical College Transfer (40 S.H.)

INTERDISCIPLINARY PROGRAM: SOCIAL SCIENCE/HISTORY

Minne Hall, Room 212, (507) 457-5400

Alexander Yard, Program Director

Alexander Yard, Associate Professor, History; M.A., University of Missouri-St. Louis; A.B., A.M., Ph.D. Washington

University (St. Louis, Missouri); 1986 -

Director email: ayard@vax2.winona.msus.edu

The Social Science/History Interdisciplinary Program is designed for prospective middle school and high school teachers. WSU established the major to meet the secondary social studies teacher certification requirements for the state of Minnesota. In addition to this program, students must complete the Professional Education Sequence to earn a teaching license. The education sequence is described in the Effective Educator Handbook, available in the Education Department Office, and in this catalog under the Department of Education listings. Students need to consult the Education Department concerning the admissions process for the Professional Education Sequence.

Pass/No Credit Courses

All courses must be taken on a Grade Only basis. Courses taken at either WSU or another institution on a Pass/No Credit basis do not count toward fulfillment of the program requirement.

Grade and GPA Requirements

Coursework must receive a grade of "C" or better to count toward fulfillment of the program requirements. Students must achieve a GPA in program courses of 2.75 or better to successfully complete the major.

B.S. MAJOR - SOCIAL SCIENCE/HISTORY (SECONDARY SOCIAL STUDIES TEACHING)

81-83 S.H. (No Minor Required)

REQUIRED COURSES (66-68 S.H.)

Economics (6 s.h.)

- * 201 Principles of Microeconomics (3)
- * 202 Principles of Macroeconomics (3)

Geography (12 s.h.)

- * 110 World Regional Geography (3)
- * 211 Economic Geography (3)
- * 212 Physical Geography (3)
- * 213 Cultural Geography (3)

History (12 s.h.)

- * 150 U.S. History to 1856 (3)
- * 151 U.S. History Since 1865 (3)

And select TWO of the following:

- * 120 Western Civilization to 1500 (3)
- * 121 Western Civilization, 1500-1815 (3)
- * 122 Western Civilization, 1815-Present (3)

Political Science (9 s.h.)

- * 120 Introduction to American Politics (3)
- * 130 Introduction to International Relations (3)

One of the following:

- 135 Introduction to Comparative Politics (3)
- 150 Introduction to Political Theory (3)

Psychology (3 s.h.)

- * 210 General Psychology (3)

Sociology (6 s.h.)

- * 150 Human Society (3)
- 325 Social-Cultural Anthropology (3)

Social Psychology (3 s.h.)

One of the following:

- SOC 205 Social Interaction (3) OR
- PSY 325 Social Psychology (3)

Research Methods (6-8 s.h.)

- HIST 298 Historical Methods and Historiography (3)

And ONE of the following:

- POLS 380 Political Research 1 - Secondary (3) OR
- SOC 376 Introduction to Social Research (3) OR
- PSY 308 Experimental Psychology (5)

DIFFERENT CULTURE (6 S.H.)

Note: Students in the program should take a Different Culture History course and a Social or Political Science course focused on the same region. Students may use these courses to fulfill both program and General Education/Different Culture Requirements. Complete two courses in one of the following areas:

Asia

- * HIST 123: East Asian Civilization (3)
- * GEOG 223: Geography of the Orient (3) OR

Latin America

- * HIST 165: Latin American History (3)

And ONE of the following:

- * GEOG 225: Geography of Latin America (3) OR
- * POLS 224: Politics and Society in Latin America (3)

Africa

- * HIST 170: African Civilization (3)

And ONE of the following:

- * GEOG 224: Geography of Africa (3) OR
- * POLS 226: Politics and Society in Africa (3)

ELECTIVES (3 S.H.)

- 331 Teaching Social Studies in Secondary Schools (3)

ELECTIVES (15 s.h.)

Students complete a concentration of 15 s.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 the program director's approval.

*Course may be used to satisfy certain General Education requirements.

LAW AND SOCIETY

Minne Hall, Room 212 (History Dept), 507-457-5400

Co-Directors: John Campbell (History) and Troy Paino (History)

Faculty

John Campbell, Assistant Professor; B.A., Wesleyan University; M.A., Ph.D., University of Minnesota-Twin Cities; 1996 -

Troy Paino, Assistant Professor; B.A., Evangel College; J.D., Indiana University School of Law; M.A., Ph.D.,

Michigan State University; 1997 -

Faculty Who Teach Upper Division Required Courses In The Major:

Criminal Justice: *M. Norman*

English: *M. Dorner*

Geoscience: *K. Summa*

History: *M. Byman, J. Campbell, T. Paino, G. Schmidt*

Mass Communications: *R. Elcombe, T. Schwarze*

Psychology: *P. Miene*

Philosophy: *D. Scheid, K. Possin*

Political Science: *M. Bosworth*

Program and its benefits to students:

As one of the central forces, processes, and institutions in modern life, the law (in all of its guises) merits the liberal-arts-based examination offered by the Law and Society Program. Law and Society is a richly interdisciplinary major that enables interested students to study law and legal culture from many different disciplinary, conceptual, historical, theoretical, and empirical perspectives. As a multi-disciplinary liberal arts major, the Law and Society program has much to offer students:

First, by incorporating a diversity of academic departments (English, Geoscience, History, Mass Communications, Philosophy, Political Science, Psychology, Sociology/Criminal Justice) into a common and focused curriculum, students will gain a more sophisticated, comparative, and broad-based understanding of the relationship between the society and the law—how it works (or, as the case may be, doesn't work), how it impinges on us, how we impinge upon it—than would be the case if students examined the law from the perspective of one academic discipline.

Second, greater knowledge of these disciplines through study of a common denominator - the law - will enable each student to decide for him/herself which of these disciplines to pursue (or to avoid!) with additional undergraduate studies.

Third, because of the program's academic rigor, majors will have an opportunity to enhance their intellectual abilities to read carefully, write persuasively, speak effectively, and think critically and creatively.

Fourth, because of the interdisciplinary nature of the program, students will have the opportunity to work closely—via numerous upper-division courses—with faculty from many departments.

Future Educational and Career Possibilities:

The Law and Society program offers numerous benefits for students as they pursue their post-collegiate life:

First, because of their broad-based, multi-disciplinary background, Law and Society graduates will be able to participate more effectively and intelligently as citizens in an ever-changing world.

Second, successful participation in this program will provide a sound basis and preparation for students hoping to attend law or graduate school. Although law schools are quick to point out that many undergraduate majors in the liberal arts stand as good preparation, the Law and Society Major, with its focus on the law in the context of an interdisciplinary and liberal arts education, will be especially attractive to law schools. Once in law school, knowledge acquired as a Law and Society major may give students an added advantage in their law school studies.

Third, even if law or graduate school is not the ultimate goal for students majoring in this program, the Law and Society major will endow any Winona State student with the intellectual interests and abilities to achieve success (and satisfaction) in other post-collegiate endeavors.

Fourth, for students pursuing employment right after college, successfully majoring in Law and Society will provide graduates with many valuable intellectual skills—thinking analytically, writing and speaking persuasively, reading and listening critically, and researching and organizing data systematically—desired by many employers. Such versatility is all the more desirable in a world where work and careers continuously change.

Fifth, by having examined the law from many different disciplines, Law and Society graduates will have valuable expertise to sell when seeking post-collegiate employment. Given the centrality of the law in contemporary American society, there are many potential employers—corporate, governmental, non-profit, to name a few—who will be eager to hire successful Law and Society majors for their understanding of how the law influences the work-a-day world of employers.

Requirements

The requirements for this major include:

- 1) being admitted to the program
- 2) successfully completing the required courses with a minimum 2.5 G.P.A.
- 3) successfully writing a capstone senior thesis on some topic involving the law. Although there is considerable flexibility in the choice of topic, the actual course work for the thesis will be done in the History Major sequence of Historical Methods (History 298) and the Senior Seminar (History 495). The senior thesis gives students the opportunity to showcase much of their knowledge and understanding by doing their own in-depth research, analysis, and writing.

B.A. MAJOR – LAW AND SOCIETY

57 S.H.

REQUIRED COURSES (57 S.H.)

GENERAL EDUCATION (22 S.H.)

***The total semester hours includes twenty (22) semester hours of General Education approved courses and the remaining fifty-seven (57) semester hours are for required courses in this major.

English (5 s.h.)

- 210 Advanced Expository Writing (3)
- 225 Topics in Literature: Law & Literature (2)

Geoscience (3 s.h.)

- * 120 Dynamic Earth (4)
- 225 Environmental Geoscience (3)

History (9 s.h.)

Choose one of the two following courses:

- * 150 U.S. History to the Civil War (3) OR
- 151 U.S. History Since the Civil War (3) AND

Choose one of the three following courses:

- * 120 Western Civilization: Beginning-1500 (3) OR
- 121 Western Civilization: 1500-1815 (3) OR
- 122 Western Civilization: 1815-Present (3)

- 365 American Legal History (3)
- 488 Constitutional History (3)
- 355 European Intellectual & Cultural History (3)

Mass Communication (3 s.h.)

- * 100 Mass Media & Society (3)
- 405 Issues and Ethics (3)

Philosophy (6 s.h.)

- 210 Inductive Reasoning (3)
- 332 Philosophy of Law (3)

Political Science (6 s.h.)

- * 120 Introduction to American Politics (3)
- 227 Judicial Process and Politics (3)
- 320 Constitutional Law (3)

Psychology (3 s.h.)

- * 210 General Psychology (3)
- 330 Psychology and the Law (3)

Sociology (3 s.h.)

- * 150 Human Society (3)
- 210 Introduction to Criminal Justice (3)

Senior Writing & Research Requirement (7 s.h.)

- 298 History - Historical Methods (3)
- 495 History - Senior Seminar (4) OR

If another department within the college of liberal arts develops a senior writing project similar to that required in the History Department's methods and seminar courses, it may be substituted for History 298 & 490. It is important that the research and writing project focus on some aspect of legal culture.

APPROVED ELECTIVES:

(choose 4 of the following courses)

12 S.H.

Mass Communication

- 300 Mass Media Law (3)

History

- 486 American Intellectual & Cultural History (3)

Social Work

- 425 Law and Social Work (3)

Sociology/Criminal Justice

- 315 Criminology (3)
- 425 Social Change and Social Movements (3)
- 429 Social Class and Power (3)

Political Science

- **260 Development of Political Thought (3)
- **358 Contemporary Political Thought (3)
- **450 Feminist Political Theory (3)

* Course may be used to satisfy General Education requirements.

**These courses have specific prerequisites. Students must either satisfy these prerequisites, or get permission from the instructor.

LIBRARY SCIENCE

Main Library, Room 110, (507) 457-5151

Leighton (Acting Chairperson), Dennison, Eriksen, Hastings, Jackson, Mount, Palzer, Sullivan

Acting Chairperson's e-mail: vleighton@winona.musu.edu

General Inquiries: Refdesk@winona.musu.edu

Faculty

Russell Dennison, Information Gallery Manager, Professor; B.A., Central College; M.A.L.S., University of Wisconsin - Madison; A.B.D., Indiana University; 1980 -

Mark J. Eriksen, Coordinator of Access Services, Assistant Professor; B.A., Ohio State University; M.L.S., Kent State University; M.S., South Dakota State University; 1998 -

Richard Hastings, Technical Services Librarian, Professor; B.S., M.S., Wayne State University; 1967 -

Joe Jackson, Instruction Librarian, Assistant Professor; B.A., University of Minnesota; B.A., University of Lyon II; M.S., Simmons College; M.A., Arizona State University; 1997 -

H. Vernon Leighton, Coordinator of Public Service, Associate Professor; B.A., Bucknell University; M.S., University of Illinois; M.S., University of Minnesota; 1990 -

Joe Mount, Collection Development Librarian, Assistant Professor; B.A., Wake Forest University; M.A., Ohio University; M.S., Indiana University - Bloomington; 1994 -

William Palzer, Reference Librarian, Assistant Professor; B.A., College of St. Thomas; M.A.L.S., University of Minnesota; 1970 -

Katbryn Sullivan, Coordinator of Non-Print Resources and Distance Education, Professor; B.A., M.A., Northern Illinois University; D.Sc., Nova University; 1978 -

The Library Department does not have a program per se, but offers courses in computerized information retrieval to help the researcher become more effective at using modern information technology to locate relevant material. Persons wishing to make Library Science professional career are encouraged to pursue a broad-based program of study with courses from many different fields.

Library Science Course Descriptions

101 - Introduction to On-Line Information Searching - 1 SH

Quarter Course: 100

An introduction to tools and strategies for locating information in cyberspace. Emphasis is on using Online Public Access Catalogs and Web browsers (such as Netscape). Students should have some experience using a mouse. Windows software is used in the laboratory.

200 - Topics in Library/Information Science - 1-2 SH.

Quarter Course: 200

A variable content course examining different topics in library and information science. Can be repeated as topics change.

MARKETING

Somsen Hall, Room 101D, (507) 457-5672

Bovinet (Chairperson), Newberry, Smith, Young.

Faculty

James W. Bovinet, Professor; B.S. Drake University; M.B.A., D.B.A., Southern Illinois University-Carbondale; 1990 -

Robert Newberry, Associate Professor; B.S., M.B.A., University of Wisconsin-La Crosse; Ph.D., University of Wisconsin-Milwaukee; 1992 -

Russell Smith, Associate Professor; B.A., Drake University; Ph.D., University of Tennessee-Knoxville, 1993-

Mark Young, Professor; B.S., M.B.A., University of Wisconsin-La Crosse; D.B.A., University of Kentucky; 1980 -

The Marketing Department is committed to fostering excellence in marketing education through progressive curriculum development and the application of state-of-the-art technology. 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.

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 Major requirements must be completed at WSU
4. Meet all WSU graduation requirements
5. Sixty-four non-business credits are required for the Marketing major. The mathematics, statistics (six semester credits maximum), and economics (nine semester credits maximum) courses required for the Bachelor's Degree can be counted toward the 64 non-business credits.

B.S. MAJOR - MARKETING

60 S.H. (No Minor Required)

REQUIRED COURSES (51 S.H.)

Accounting (3 s.h.)

ACCT 211 Financial Accounting Principles

Business Administration (9 s.h.)

BUSA 291 Legal Environment of Business (3)

MGMT 325 Organizational Dynamics (3)

POM 334 Production and Operations Management (3)

Economics and Finance (9 s.h.)

ECON 201 Principles of Microeconomics (3)

ECON 202 Principles of Macroeconomics (3)

FIN 360 Corporate Finance (3)

Math Requirements (3 s.h.)

MATH 140 Applied Calculus (3) OR

MATH 160 Calculus I

Statistics (3 s.h.)

DIS 220 Business Statistics I (3) OR

STAT 210 Statistics (3)

Marketing Core (17.h.)

300 Principles of Marketing (3) (Prerequisite: ACCT 211 & ECON 201 or instructor's permission)

320 Market Analysis (6) (Prerequisite: MKTG 300)

322 Marketing Communications I (1) (must be taken with MKTG 320)

340 Marketing Planning (6) (Prerequisite MKTG 320)

342 Marketing Communications II (1) (must be taken with MKTG 340)

Practicum (3 s.h.)

399 Internship Experience (3) (Prerequisite: MKTG 340)
Integrative Capstone (4)

420 Marketing Management (3) (Prerequisite: MKTG 340)

422 Marketing Communications III (1) (must be taken with MKTG 420)

ELECTIVES (9 S.H.)

List 1 (Prerequisite: MKTG 320)

323 Consumer Behavior (3)

325 Professional Selling (3)

327 Marketing and Entrepreneurship (3)

329 Sport Marketing (3)

331 International Marketing (3)

333 Topics in Marketing (3)

List 2 (Prerequisite: MKTG 340)

343 Business to Business Marketing (3)

345 Sales Management (3)

347 Marketing Channels (3)

349 Independent Study (3)

B.S. MINOR - MARKETING

23 S.H.

REQUIRED COURSES (20 S.H.)

Business Administration/Statistics (3)

Choose one of the three following courses:

Statistics Requirement for the Student's Major OR

DIS 220 Business Statistics (3) OR

STAT 210 Statistics (3)

Marketing Core (17 s.h.)

300 Principles of Marketing (3) (Prerequisite: ACCT 211 & ECON 201 OR instructor's permission)

320 Market Analysis (6) (Prerequisite: MKTG 300)

322 Marketing Communications I (1) (must be taken with MKTG 320)

340 Marketing Planning (6) (Prerequisite: MKTG 320)

342 Marketing Communications II (1) (must be taken with MKTG 340)

ELECTIVES (3 S.H.)

Any Marketing elective (See Marketing Major) (3 s.h.)

Marketing Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major and minor must be taken on a Grade Only basis except Internships and Practicums. The P/NC option is available to non-majors unless otherwise noted.

100 - Marketing and Society-3 S.H.

This course introduces students to marketing's role in society and compares it with marketing's role within the organization. Ethical and moral issues pertinent to marketing are raised. These include the ethical dilemmas often faced by marketing professionals, as well as the consequences of marketing on society as a whole.

300 - Principles of Marketing-3 S.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. Standard business and non-traditional aspects of marketing are explored. The potential employment scenario is reviewed. Prerequisites: ECON 201 and ACCT 211.

320 - Market Analysis-6 S.H.

Market analysis integrates three disciplines: marketing research, the study of consumer behavior, and market demand analysis. Market analysis applies these disciplines to understanding relevant markets, analyzing consumer and business to business buying behavior, and identifying and measuring target markets. The course examines the theory, tools and processes that are utilized to apply marketing research, the study of consumer behavior and market demand analysis to provide information that facilitates decision making in marketing management. Emphasis is placed on the practical issues related to the successful application of the three disciplines by an organization under market conditions. Market analysis provides the student with substantial experience in developing written and oral communications skills. Market Analysis must be taken simultaneously with Marketing Communications I (MKTG 322). Prerequisites: MKTG 300, and the Mathematics and Statistics requirement of the marketing major and minor.

322- Marketing Communications I: Research Reports-1 S.H.

Marketing Communication I is designed to develop written communication skills in marketing research and analysis including effective format and design and the ethical dimensions of report writing. Marketing Communications I must be taken simultaneously with Market Analysis (MKTG 320).

323 - Consumer Behavior-3 S.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, cultural and gender diversity, and consumer decision-making models. Prerequisite: MKTG 320.

325- Professional Selling-3 S.H.

Learning professional selling concepts and the communications skills to apply them. Topics include interpersonal communications in business, relationship building, prospecting and qualifying, determining customer wants and needs, sales presentation and negotiation and post-sale communications. Employment opportunities in sales are examined. Prerequisites: completion of Marketing core requirements.

327 - Marketing and Entrepreneurship-3 S.H.

An examination of the procedures and managerial practices of small business. 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: MKTG 320.

329 - Sport Marketing-3 S.H.

Sports marketing focuses on the different problems presented in developing promotional programs for sports teams. Emphasis will be placed on professional and collegiate level. A survey of potential sports-related jobs is included. Grade only. Student fee is required. Prerequisites: MKTG 320.

331 - International Marketing-3 S.H.

Quarter Course: 384.

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: MKTG 320.

333 - Topics in Marketing-3 S.H.

Quarter Course: 390.

Various courses offered in conjunction with curriculum needs and the availability of faculty with relevant expertise. Prerequisites: MKTG 320.

340 - Marketing Planning-6 S.H.

Marketing Planning takes a strategic perspective to examine the nature and scope of utilizing market analysis outcomes to plan the implementation of a marketing mix. The course includes the study of marketing management theory and the experience of business and marketing planning. Course implementation will involve detailed analysis of product development and management activities, such as, research and development, and brand and product line management; promotional activities, such as, advertising, personal selling, public relations, and sales and trade promotions; distribution activities, such as retailing and wholesaling; and pricing activities, such as, new product pricing, pricing strategies and pricing adjustments. The course includes substantial experiences with market simulations and the development of written and oral communications skills.

Marketing Planning must be taken simultaneously with Marketing Communications II (MKTG 342). Prerequisite: MKTG 320.

342 - Marketing Communications II: Marketing Plans - 1 S.H.

Marketing Communication II is designed to develop and refine written communication necessary for authoring a business and marketing plan including effective format and design. Marketing Communications II must be taken simultaneously with Marketing Planning (MKTG 340).

343 - Business to Business Marketing-3 S.H.

Quarter Course: 362.

Business to business marketing considers organizational and industrial markets and marketing processes. An examination of organizational buying behavior procurement and marketing management for industrial goods and services is provided. Prerequisites: MKTG 340.

345 - Sales Management-3 S.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: MKTG 340.

347 - Marketing Channels-3 S.H.

The legal, political, social and economic relationships among the various institutions that comprise marketing channels with a focus on managing the distribution of goods and services. Prerequisite: MKTG 340.

349 - Independent Study-1-3 S.H.

Offers the advanced student an opportunity to do additional readings and/or research papers in areas of special interest. Grade only. Prerequisite: MKTG 340 and department approval.

398 - Internship-1-9 S.H.

Credits will not be counted in Marketing Major, but as general elective credits. Prerequisites: MKTG 340 and department approval. P/NC only.

399 - Internship Experience-3 S.H.

See Department chairperson for a list of requirements. Credits fulfill Marketing Practicum. Grade only. Prerequisites: MKTG 340 and department approval.

420 - Marketing Management- 3 S.H.

An advanced applied course in marketing management and decision-making. Marketing management is a comprehensive study of the development and implementation of a marketing plan including the plans placement in a business or organizational plan. Students will be required to apply the principles and concepts of marketing to real-world problems. Each student will be required to write and present a marketing plan. Emphasis will be placed on analysis, decision-making, and the communication of the plan to appropriate audiences. Marketing Planning must be taken simultaneously with Marketing Communications III (MKTG 422). Prerequisite: MKTG 340

422 - Marketing Communications III: Presentations-1 S.H.

Course is designed to develop student presentation skills and use of presentation software. Students will learn and practice the elements of good oral presentation skills specifically designed for a business audience. Marketing Communications III must be taken simultaneously with Market Management (MKTG 420).

MASS COMMUNICATION

Phelps Hall, Room 126, (507) 457-5474

Elcombe (Chairperson), Daniel, Killion, Pack, Schwarze, Vivian, Weis

Faculty

Ajit Daniel, Professor; B.A., St. Stephen's College, Delhi University, India; B.S., Southern Illinois University-Edwardville;

M.S. Southern Illinois University-Carbondale; Ph.D., The Union Institute; 1982 -

Ronald Elcombe, Associate Professor; B.S., University of Minnesota-Twin Cities; M.M., Mankato State University; Ph.D., The Union Institute; 1991 -

Cindy Killion, Associate Professor; B.J., University of Missouri-Columbia; M.A., The University of Oklahoma; 1992 -

Dennis H. Pack, Professor; B.S., University of Utah; M.A., Northwestern University; 1978 -

Terry Schwarze, Professor; B.F.A., University of Minnesota-Twin Cities; M.A., University of Northern Iowa; Ph.D., The Union Institute; 1988 -

John H. Vivian, Professor; A.B. Gonzaga University; M.S.J., Northwestern University; 1981 -

John Weis, Assistant Professor; B.S., Northern Illinois University; M.A., Vermont College of Norwich University; 1996 -

Mass media are needed in a free society to inform, survey, protect and enlighten. The Mass Communication faculty stresses developing communicators with a strong sense of their responsibility in serving the community and society. The faculty also provides practical experience in producing mass media content.

Practicing professionals are frequent guests. Mass Communication students have many opportunities to apply theory to practice in laboratories, co-curricular and extracurricular programs including:

- KQAL, a full-service departmental radio station serving an average listening audience of 15,000.
- Bravura, a laboratory publication with 17,000 circulation.
- Color television production facilities in which students produce programs for a variety of audiences.
- Computerized reporting labs for writing projects and graphics projects.
- Campus chapters of the American Advertising Federation, the International Association of Business Communicators, the National Broadcasting Society (Alpha Epsilon Rho), the National Press Photographers Association and the Society for Collegiate Journalists.

• Many other opportunities to work in student and professional media activities are available to students both on and off-campus.

- Computerized work stations for creating multi-media electronic portfolios

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; gain an understanding of media law, ethics and theory and receive both theoretical and practical experience in an area of special interest.

Pass/No Credit Courses

All courses, with the exception of internships, taken toward the Mass Communication Major requirements or Mass Communication Minor requirements must be taken on a grade only basis.

Mass Communication majors and minors must earn a grade of "C" or better in all Mass Communication courses and all additional courses taken to satisfy the requirements of a Mass Communication Major. In addition, all Mass Communication majors must submit an electronic assessment portfolio prior to graduation.

Additional Graduation Requirements

All Mass Communication majors must have a cumulative GPA average of 2.5 or higher to graduate.

To graduate from WSU with a Mass Communication degree in any option, a student transferring credits must satisfy requirements from the appropriate option including 12 credit hours earned at WSU in Mass Communication courses at the 300 level or above.

B.A. MAJOR - MASS COMMUNICATION

42 S.H. (Minor Required)

Mass Communication majors choose one of the five options for which the core requirements are the same.

ADVERTISING OPTION - 42 S.H.

CORE REQUIRED COURSES (15 S.H.)

- 100 Mass Media & Society (3)
- 110 Visual Communication (3)
- 130 News Writing (3)
- 300 Mass Media Law (3)
- 405 Mass Media Issues & Ethics (3)
- 499 Electronic Assessment Portfolio (0)

CORE ELECTIVES (3 S.H.)

Choose One:

- 305 Mass Media History (3)
- 400 Mass Communication Theory (3)
- 450 International Broadcasting (3)

ADVERTISING REQUIRED COURSES (18 S.H.)

- 175 Mass Communication Computer Applications (3)
- 260 Advertising (3)
- 360 Advertising Copy Writing (3)
- 361 Advertising Media Selection (3)
- 362 Advertising Design (3)
- 460 Advertising Campaigns (3)

ADVERTISING ELECTIVES (6 S.H.)

- 215 Photocommunication (3)
- 220 Broadcast Writing (3)
- 240 Public Relations (3)
- 275 Publication Design (3)
- 226 Video/Multimedia Planning & Design (3)
- 408 Research in Mass Media (3)
- 461 Retail/Business Advertising (3)
- 300 MKTG Principles of Marketing (3)
- 323 MKTG Consumer Behavior (3)

BROADCASTING OPTION

42 S.H.

CORE REQUIRED COURSES (15 S.H.)

- 100 Mass Media & Society (3)
- 110 Visual Communication (3)
- 130 News Writing (3)
- 300 Mass Media Law (3)
- 405 Mass Media Issues & Ethics (3)
- 499 Electronic Assessment Portfolio (0)

CORE ELECTIVES (3 S.H.)

Choose One:

- 305 Mass Media History (3)
- 400 Mass Communication Theory (3)
- 450 International Broadcasting (3)

BROADCASTING REQUIRED COURSES (18 S.H.)

- 020 Electronic Media Activities (1)
- 120 Electronic Media (2)
- 220 Broadcast Writing (3)
- 225 Radio Production (3)
- 226 Video/Multimedia Planning & Design (3)
- 320 Television Production Operations (3)
- 425 Senior Seminar in Electronic Media (3)

BROADCASTING ELECTIVES (6 S.H.)

- 321 Topics In Television Production (3)
- 325 Broadcast Journalism (3)
- 326 Mass Communication Multimedia Applications (3)
- 399 Internship (3)
- 420 Electronic Media Management (3)

JOURNALISM OPTION

42 S.H.

CORE REQUIRED COURSES (15 S.H.)

- 100 Mass Media & Society (3)
- 110 Visual Communication (3)
- 130 News Writing (3)
- 300 Mass Media Law (3)
- 405 Mass Media Issues & Ethics (3)
- 499 Electronic Assessment Portfolio (0)

CORE ELECTIVES (3 S.H.)

Choose One:

- 305 Mass Media History (3)
- 400 Mass Communication Theory (3)
- 450 International Broadcasting (3)

JOURNALISM REQUIRED COURSES (18 S.H.)

- 175 Mass Communication Computer Applications (3)
- 230 News Gathering (3)
- 275 Publication Design (3)
- 330 Feature Writing (3)
- 331 News Editing (3)
- 437 Publication Practicum (3)

JOURNALISM ELECTIVES (6 S.H.)

- 215 Photocommunication (3)
- 220 Broadcast Writing (3)
- 240 Public Relations (3)
- 310 Photojournalism (3)
- 226 Video/Multimedia Planning & Design (3)

- 345 Public Relations Writing (3)
- 408 Research in Mass Media (3)
- 430 Specialized Reporting (3)

PHOTOJOURNALISM OPTION

42 S.H.

CORE REQUIRED COURSES (15 S.H.)

- 100 Mass Media & Society (3)
- 110 Visual Communication (3)
- 130 News Writing (3)
- 300 Mass Media Law (3)
- 405 Mass Media Issues & Ethics (3)
- 499 Electronic Assessment Portfolio (0)

CORE ELECTIVES (3 S.H.)

Choose One:

- 305 Mass Media History (3)
- 400 Mass Communication Theory (3)
- 450 International Broadcasting (3)

PHOTOJOURNALISM REQUIRED COURSES (21 S.H.)

- 175 Mass Communication Computer Applications (3)
- 215 Photocommunication (3)
- 230 News Gathering (3)
- 275 Publication Design (3)
- 310 Photojournalism (3)
- 317 Photojournalism Practicum (3)
- 419 Senior Seminar in Photojournalism (3)

PHOTOJOURNALISM ELECTIVES (3 S.H.)

- 240 Public Relations (3)
- 260 Advertising (3)
- 319 Studio Photography (3)
- 226 Video/Multimedia Planning & Design (3)
- 330 Feature Writing (3)
- 331 News Editing (3)
- 408 Research in Mass Media (3)
- 437 Publication Practicum (3)

PUBLIC RELATIONS OPTION

42 S.H.

CORE REQUIRED COURSES (15 S.H.)

- 100 Mass Media & Society (3)
- 110 Visual Communication (3)
- 130 News Writing (3)
- 300 Mass Media Law (3)
- 405 Mass Media Issues & Ethics (3)
- 499 Electronic Assessment Portfolio (0)

CORE ELECTIVES (3 S.H.)

Choose One:

- 305 Mass Media History (3)
- 400 Mass Communication Theory (3)
- 450 International Broadcasting (3)

PUBLIC RELATIONS REQUIRED COURSES (21 S.H.)

- 175 Mass Communication Computer Applications (3)
- 230 News Gathering (3)
- 240 Public Relations (3)
- 275 Publication Design (3)
- 340 Public Relations Cases (3)
- 345 Public Relations Writing (3)
- 440 Public Relations Campaigns (3)

PUBLIC RELATIONS ELECTIVES (3 S.H.)

- 120 Electronic Media (2)
- 215 Photocommunication (3)
- 220 Broadcast Writing (3)
- 260 Advertising (3)
- 226 Video/Multimedia Planning & Design (3)
- 330 Feature Writing (3)

- 331 News Editing (3)
- 347 Public Relations Practicum (3)
- 361 Advertising Media Selection (3)
- 399 Internship (3)

B.A. MINOR - MASS COMMUNICATION

21 S.H.

REQUIRED COURSES (9 S.H.)

- * 100 Mass Media & Society (3)
- 110 Visual Communication (3)
- 130 News Writing (3)

ELECTIVES (12 S.H.)

The student must select 12 s.h. of credit from other Mass Communication courses.

* Course may be used to satisfy certain General Education requirement

Mass Communication Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicums.

020 - Electronic Media Activities-1 S.H.

Active participation in announcing, programming, production and/or control-room operations at Radio KQAL-FM.

100 - Mass Media and Society-3 S.H.

Sociological examination of the interrelationship of mass media and society in contemporary America.

110 - Visual Communication-3 S.H.

Basic visual communication theory and basic b&w photography including camera handling and darkroom experience. Weekly critiques. Lab required. Manual 35mm camera required.

120 - Electronic Media-2 S.H.

Characteristics, philosophy and impact of radio, television, cable and the developing electronic mass media.

130 - News Writing-3 S.H.

Style and structure of news stories; news sources; newsroom practices and procedures; with reporting assignments for publication and broadcast. Prerequisite: ENG 111.

175 - Mass Communication Computer Applications-3 S.H.

Computer skills for the mass media using word processing, page layout, database, spreadsheet, image generation, image manipulation and other applications for the Macintosh computer.

215 - Photocommunication-3 S.H.

Advanced visual and technical skills for black-and-white photography. Prerequisite: MCOM 110.

220 - Broadcast Writing-3 S.H.

Radio and television writing including commercial copy and feature programs. Prerequisite: ENG 111.

225 - Radio Production-3 S.H.

Design, technique, production and presentation of radio programs. Prerequisite: MCOM 220.

226 - Video/Multimedia Planning and Design-3 S.H.

An overview of the television/video and multimedia production process with special attention to organizing, scripting, budgeting, equipment and personnel. This course deals with essential pre-production planning, rather than production techniques.

230 - News Gathering-3 S.H.

Interviewing, observation and research as information-gathering methodologies; with reporting assignments for publication and broadcast. Prerequisite: MCOM 130.

240 - Public Relations-3 S.H.

Nature and role of public relations in a democratic society. Case problems and projects.

260 - Advertising-3 S.H.

A survey course that serves as an introduction to advertising. The course covers the structure of the advertising industry, the process of creating and delivering an advertising message and the function advertising serves in our society.

275 - Publication Design-3 S.H.

Quarter Course: 335.

Using the Macintosh computer to learn layout, design principles and processes for the print media. Prerequisite: MCOM 175.

300 - Mass Media Law-3 S.H.

Major issues and survey of the media's current legal status.

Prerequisite: MCOM 100.

305 - Mass Media History-3 S.H.

Development of the mass media including historiography, examination of movements and current research problems.

310 - Photojournalism-3 S.H.

The photograph as a means of visual reporting. Lab required.

Weekly critique. Prerequisite: MCOM 215.

317 - Photojournalism Practicum-3 S.H.

Practical hands-on applications of photojournalism concepts and theories in the form of news photography and photo stories for publication in print version of departmental laboratory publication and adapting print version for electronic dissemination. Prerequisite: MCOM 310.

319 - Studio Photography-3 S.H.

Large-format camera photography with emphasis on studio techniques. Prerequisite: MCOM 215.

320 - TV Production Operations-3 S.H.

Theory and practical experience in planning and creating of television programs using single- and multiple-camera systems.

Prerequisite: MCOM 226.

321 - Topics in Television Production-3 S.H.

Advanced theory and practical experience in producing television programs using single- or multiple-camera systems. Prerequisite: MCOM 320.

325 - Broadcast Journalism-3 S.H.

Reporting and presenting the news on radio and television. Topics include news writing, reporting, taping and editing; producing newscasts; broadcast news ethics. Prerequisites: MCOM 226 and MCOM 320.

326 - Mass Communication Multimedia Applications-3 S.H.

Understanding and authoring multimedia computer applications for the mass media. Topics include equipment and software, selection, preparation and programming of graphics, animation, sound and video in multimedia for the mass media. Prerequisites: MCOM 100 and MCOM 226.

330 - Feature Writing-3 S.H.

Developing, writing and marketing feature stories to a variety of media. Prerequisite: MCOM 230.

331 - News Editing-3 S.H.

Operation of the newsroom including copy editing, gatekeeper decisions, headline writing, layout. Prerequisite: MCOM 230.

340 - Public Relations Cases-3 S.H.

Public relations problems in industry, government trade associations, labor and other groups. Planning and preparing communications materials for various media, and applications of public relations techniques. Prerequisite: MCOM 240.

345 - Public Relations Writing-3 S.H.

Preparing news releases, speeches, profiles, scripts, employee publications, newsletters, brochures, plus other promotional and PR techniques. Prerequisite: MCOM 230.

347 - Public Relations Practicum-3 S.H.

Practical experience in print and public relations tasks including writing or designing brochures, speech writing, collecting data and developing strategies. Prerequisite: MCOM 240.

360 - Advertising Copy Writing-3 S.H.

The creation of effective advertising messages for newspapers, magazines, radio, television and other mass media. The course emphasizes the writing of advertising copy and the coordination of visual and verbal concepts to achieve advertising objectives.

361 - Advertising Media Selection-3 S.H.

Theories, problems and practices related to advertising media evaluation and selection. Prerequisite: MCOM 260.

362 - Advertising Design-3 S.H.

Principles and practices of advertising design with an emphasis on the design of effective advertisements in newspapers, magazines, direct mail and alternative delivery systems. Prerequisite: MCOM 360.

399 - Internship-3 S.H.

Departmentally approved, supervised practical experience in mass communication. Prerequisite: Departmental approval.

400 - Mass Communication Theory-3 S.H.

Theories of mass influence on society and culture. Prerequisite: MCOM 100.

405 - Mass Media Issues and Ethics-3 S.H.

Introduction to perspectives on ethics as applied to case studies and issues in advertising, broadcasting, journalism, photojournalism and public relations. Prerequisite: MCOM 100 and senior standing.

408 - Research in Mass Media-3 S.H.

Investigation and interpretation of mass media research; introduction to procedures for studying media control, content, audience and effects; problems in applying theoretical concepts. Prerequisites: MCOM 100 and junior standing.

409 - Independent Study-3 S.H.

To meet the needs of the individual student. By previous arrangement only. Prerequisite: Junior standing. May be repeated for a total of 6 S.H.

419 - Senior Seminar in Photojournalism-3 S.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. Prerequisites: Senior standing and MCOM 317.

420 - Electronic Media Management-3 S.H.

Techniques and organization for management of commercial, non-commercial and industrial television, and radio. Prerequisite: MCOM 120.

425 - Senior Seminar in Electronic Media-3 S.H.

Capstone experience in electronic media. Students research, plan and write a major research paper or produce a radio, television/video or multimedia program. Students also create a resume/portfolio. Prerequisites: Senior standing, MCOM 225 and MCOM 226.

430 - Specialized Reporting-3 S.H.

Interpretative writing, investigative reporting, editorial persuasion and other topics. May be repeated for credit on a second topic. Prerequisite: MCOM 230.

437 - Publication Practicum-3 S.H.

Practical hands-on application of journalism concepts and skills through team leadership, story generation, copy editing, page layout and production of the departmental printed laboratory publication as well as editing for electronic dissemination. Prerequisites: MCOM 130, MCOM 230 and MCOM 331.

440 - Public Relations Campaigns-3 S.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: MCOM 340 and MCOM 345.

450 - International Broadcasting-3 S.H.

Examine the structures, processes, functions and significance of various international broadcasting systems and services. Emphasis is placed on the scope and complexity of such systems, and their impact upon global understanding. Prerequisites: MCOM 100.

460 - Advertising Campaigns-3 S.H.

Consideration and implementation of advertising principles in actual situations. Development of situation analysis, marketing strategy and multimedia advertising campaigns to achieve specific objectives. Study of measurement of communication cost. Prerequisites: MCOM 360, MCOM 361 and MCOM 362.

461 - Retail and Business-to-Business Advertising-3 S.H.

This course focuses on how the principles of effective advertising are used by retail stores and businesses selling products and services to other businesses. Prerequisite: MCOM 360 and MCOM 362.

499 - Electronic Assessment Portfolio - 0 S. H.

For this arranged class, each student completes an electronic assessment portfolio to fulfill a graduation requirement.

MATHEMATICS AND STATISTICS

Gildemeister Hall, Room 322 (507) 457-5370

Anderson (Chairperson), Blumberg, Bunce, Debnath, Deppa, Draskoci-Johnson, Gross, Jarvinen, Leonhardi, Pascual, Peratt, Price, Quella, Quinn-Nelson, Rand, Sloan, Smith, Suman, Urion.

Faculty

Jeffrey Anderson, Professor; B.A., University of Minnesota-Morris; Ph.D., Iowa State University; 1992 -

Carol Joyce Blumberg, Professor; A.B., A.M., University of Michigan; M.S., Ph.D., Michigan State University; 1987 -

Gary Bunce, Professor; B.S., North Dakota State University; M.A., Ph.D., University of New Mexico; 1971-

Joyati Debnath, Professor; B.Sc., M.Sc., Jadavpur University; M.S., Ph.D., Iowa State University of Science and Technology; 1989 -

Brant Deppa, Associate Professor; B.S., M.S., University of Minnesota, Duluth; Ph.D., University of Minnesota-Twin Cities; 1992 -

Jeffrey Draskoci-Johnson, Assistant Professor; B.A., Ohio Wesleyan University; M.S., Ph.D., Ohio State University-Columbus; 1996 -

George Gross, Assistant Professor; B.S., M.A., University of South Dakota; 1987-

Richard Jarvinen, Professor; B.A., St. John's University; M.A.T., Vanderbilt University; Ph.D., Syracuse University; 1989 -

Steve Leonhardi, Associate Professor; B.S., Concordia College, Moorhead (MN); M.S., Ph.D., University of Wisconsin-Madison; 1996 -

Felino G. Pascual, Associate Professor; B.A., Ateneo de Manila, Philippines; M.Sc., Ph.D., University of Minnesota-Twin Cities; 1992 -

Barry Peratt, Assistant Professor; B.S., Moravian College; M.S., Ph.D., University of Delaware; 1996 -

Terry M. Price, Assistant Professor; B.S., M.S., Lamar University - Beaumont; Ph.D., Washington State University; 1998 -

Joyce Quella, Assistant Professor; B.S., University of Wisconsin-Madison; A.M., University of Illinois; M.S., University of Iowa; 1987 -

Cheryl Quinn-Nelson, Associate Professor; B.A., Luther College; M.S. Winona State University; 1986 -

Daniel Rand, Assistant Professor; B.S., Purdue University; M.S., Ph.D., University of Minnesota - Twin Cities; 1998 -

Sally Sloan, Professor; B.S., M.A., University of Minnesota-Twin Cities; Ph.D. University of Minnesota, 1990 -

Martyn R. Smith, Professor; B.S., Montclair State College; M.Ph., Ph.D., Yale University; 1989 -

Kenneth A. Suman, Professor; B.S., M.S., Clemson University; Ph.D., Pennsylvania State University; 1990 -

David K. Urion, Professor; B.A., Culver-Stockton College; M.S., Miami University; Ph.D., University of Maryland; 1982 -

The Department of Mathematics and Statistics offers major programs in mathematics, mathematics education and statistics. Minor programs are offered in mathematics, statistics and mathematics education (secondary teaching). A useful feature of Departmental programs is the commonality of a required DEPARTMENTAL CORE of courses allowing students to change majors within the department or to coordinate double majors 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 choose elective coursework within the Department to suit these needs.

The Mathematics Teaching Major (B.S. Major - Mathematics Teaching) is designed to prepare students for a career in teaching mathematics (grades 5-12). Other important options for students in the mathematics education program are to complete an additional major or minor program which grants licensure in those subjects also, and/or completion of an athletic coaching concentration. All these options have important advantages regarding future employability.

The Statistics Option (B.S. Major - Statistics) 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.

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. The B.A. Mathematics Major 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 mathematics education, career opportunities also exist within insurance companies, other business and industry, 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.

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. Requirements of the Departmental Honors are to complete a thesis, which is reviewed by two departmental faculty readers, to attend Departmental colloquia and seminars, and to present a summary of the thesis in a departmental seminar.

Credit by Exam Courses

A student may receive credit by examination for MATH 140, MATH 160 and MATH 165. A student is allowed only one attempt per course. A grade of "B" or higher is required on the examination to receive credit.

Advanced Placement Credit

Students can receive credit for MATH 160, MATH 165 and STAT 110 or STAT 210 for high school courses taken through the Advanced Placement Program. Consult with the Department chairperson for specific test score requirements.

Pass/No Credit

MATH 050 and 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 instructor permission.

Transfer Credit

No credit will be given for a grade below a "C" for mathematics, mathematics education or statistics courses taken at other institutions.

DEPARTMENTAL CORE (25-26 S.H.)

Techniques of Continuous Mathematics and

Numerical Analysis (12 s.h.)

MATH 160 Calculus I (4)

MATH 165 Calculus II (4)

MATH 260 Multivariable Calculus (4)

Matrix Algebra and Applications (3 - 4 s.h.)

MATH 130 Matrix Algebra (3) OR

MATH 270 Differential Equations & Linear Algebra (4)

Introduction to Theoretical and Discrete Mathematics (7 s.h.)

MATH 210 Discrete Mathematics & Foundations (4)

MATH 220 Combinatorics and Graph Theory (3)

Statistics (3 s.h.)

STAT 210 Statistics (3) OR

STAT 303 Introduction to Engineering Statistics (3) OR

STAT 305 Biometry (3)

B.A. MAJOR - MATHEMATICS

38-39 S.H. (Minor or Second Major Required)

The B.A. Program in Mathematics provides students with instruction in the basic techniques, applications and theories of mathematics. Consequently, all B.A. Mathematics Majors must complete the DEPARTMENTAL CORE and two courses in advanced mathematical theory. Beyond this, students choose from a variety of electives which are designed to complement another major or minor and prepares for future graduate work or provides coursework that is specific to the needs of industry. (Substitution of an additional 3 s.h. elective in place of MATH 220 in the DEPARTMENTAL CORE is allowed with the permission of the student's faculty advisor.)

Students currently majoring or planning to major in other disciplines are strongly urged to consider adding a major or minor in mathematics 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.

Students must earn a grade of "C" or higher in all required Departmental courses.

DEPARTMENTAL CORE (25-26 S.H.)

Toward satisfying the Departmental Core, Mathematics majors

may substitute an additional elective course for MATH 220.

Students should obtain the approval of their advisors for such a substitution.

MATHEMATICS (8 S.H.)

330 Advanced Calculus I (4)

440 Abstract Algebra (4)

ELECTIVES (5 S.H.)

Five s.h. of elective coursework in MATH or STAT courses numbered MATH 310 and above or STAT 320 and above.

B.S. MAJOR - MATHEMATICS:

SECONDARY TEACHING

54-55 S.H. (No Minor Required)

Mathematics Teaching Majors

The Mathematics Teaching Major prepares students for teaching mathematics in grades 5 to 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 its Professional Education Sequence. Students interested in a Mathematics Teaching Major should contact the Department of Mathematics and Statistics for an advisor.

Student Teaching Requirements

To receive Departmental recommendation for student teaching a student must:

1. have completed at least 26 credits in the declared major
2. have a grade of "C" or better in each of the courses comprising the 26 credits
3. have achieved a 2.75 GPA in all courses completed in the declared major
4. meet the requirements of 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 and a 2.75 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 Professional Education Sequence offered through the College of Education. Since this is a time of transition, students must confer with the Department of Education as well as their assigned advisor for up-to-date information.

DEPARTMENTAL CORE (25-26 S.H.)

REQUIRED COURSES (26 S.H.)

Mathematics (14 s.h.)

310 Number Theory (3)

330 Advanced Calculus I (4)

410 History of Mathematics (3)

440 Abstract Algebra (4)

Mathematics Education (11 s.h.)

320 Teaching Math in the Secondary Schools I (3)

322 Modern Geometry (4)

420 Teaching Math in the Secondary Schools II (3)

421 Middle School Methods in Mathematics (1)

Statistics (1 s.b.)

115 Laboratory in Statistics (1)

ELECTIVES (3 S.H.)

To be chosen in consultation with an advisor from MATH or STAT courses numbered MATH 310 and above or STAT 320 and above. Students in a teaching major must complete the Professional Education Sequence in the College of Education.

NOTE: Because this is a joint program with the College of Education and the Board of Teaching licensure requirements have changed, some deviations from the listed program requirements may be necessary.

B.S. MAJOR - MATHEMATICS: STATISTICS OPTION

55-56 S.H. (No Minor Required)

Statistics Option

The B.S. Program in Statistics provides students with instruction in the basic techniques, applications, and theories of mathematics and statistics. Students choosing statistics may 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 Option. 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.

DEPARTMENTAL CORE (25-26 S.H.)

REQUIRED COURSES (19 S.H.)

Statistics

115 Laboratory in Statistics (1)
360 Regression Analysis (3)
450, 460 Introduction to Mathematical Statistics I (3), II (3)

Three of the following five courses:

STAT 350 Design of Sample & Surveys (3)
STAT 355 Nonparametric Statistics (3)
STAT 365 Experimental Design & Analysis (3)
STAT 415 Multivariate Analysis (3)
STAT 425 Modern Methods of Data Analysis (3)

ELECTIVES (11 S.H.)

To be chosen in consultation with an advisor from MATH courses numbered 310 or above and STAT courses numbered 320 or above. 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. Students may also count one of CS 231 or CS 234 as an elective. Students may also count STAT 255 and FIN 335 as electives.

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 are strongly recommended to include the following as part of their coursework.

General Education Courses

ACCT 211 Financial Accounting Principles
ECON 201 Principles of Microeconomics
ECON 202 Principles of Macroeconomics

Other Suggested Courses

BUSA 200 or a course which covers microcomputer use with emphasis on spreadsheets

Major Electives

FIN 335 Forecasting Methods
MATH 420 Numerical Analysis
MATH 430 Operations Research: Linear Programming
MATH 435 Operations Research: Modeling

To become a certified actuary, candidates must pass a series of examinations that are administered by the Society of Actuaries (SOA). Some of the examinations can be successfully completed while the student is still in college. In fact, some companies only hire candidates that have successfully completed at least one of the examinations. Below is a list of courses needed for each of the examinations which a student may choose to take before graduation

Course 1: Mathematical Foundations of Actuarial Science
MATH 130 or MATH 270, MATH 160, MATH 165, and
MATH 260
STAT 210, MATH 220, STAT 450

Course 2: Interest Theory, Economics and Finance (covers some material beyond the courses below)
ECON 201, ECON 202, ACCT 211, ACCT 212, FIN 360

STAT 250 – Actuarial Exam Preparation is an independent study course designed to help students prepare for either of the first two actuary exams. This class cannot be applied towards the major or minor.

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 or minor with a Statistics emphasis. Students pursuing any major who are interested in the area of quality control should consider preparing themselves for the ASQ (American Society for Quality) 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
STAT 110 or 210 or 303, STAT 320
Certified Quality Technician
STAT 110 or 210 or 303, STAT 320
Certified Quality Auditor
STAT 110 or 210 or 303, STAT 320
Certified Software Quality Engineer
STAT 110 or 210 or 303, STAT 320
Certified Quality Engineer
STAT 110 or 210 or 303, STAT 320-322
Certified Quality Manager
STAT 110 or 210 or 303, STAT 320, STAT 350
Certified Reliability Engineer
MATH 140 or 160, 220, STAT 110 or 210 or 303, STAT 320-322

Biostatistics

Biostatistics is a rapidly expanding field combining the disciplines of Statistics, Biology, and the Health Sciences. Biostatisticians work at major medical clinics, pharmaceutical companies, and universities performing clinical trials and analyzing health related data. The statistics major is well prepared for either an entry level position or admission into a graduate school in Biostatistics. It is recommended that an interested student take some biology and health science courses and the Department's offerings in Epidemiology (STAT 440) and Data Management in SAS (STAT 255).

B.A. MINOR - MATHEMATICS

22-23 S.H.

The DEPARTMENTAL CORE (minus MATH 220) is the B.A. Minor in Mathematics.

B.S. MINOR - MATHEMATICS: SECONDARY TEACHING

26 S.H.

REQUIRED COURSES (26 S.H.)

Mathematics (15 s.h.)

130 Matrix Algebra (3)

* 160, 165 Calculus I, II (8)

210 Discrete Mathematics & Foundations (4)

Mathematics Education (8 s.h.)

320 Teaching Mathematics in the Secondary Schools (3)

322 Modern Geometry (4)

421 Middle School Methods in Mathematics (1)

Statistics (3 s.h.)

* 210 Statistics (3)

* Course may be used to satisfy certain General Education requirement

The minor and concentration options for Elementary Teaching listed in the previous catalog have been replaced by a Middle School Mathematics Specialty Program.

B.S. MINOR - MATHEMATICS: STATISTICS OPTION

21-23 S.H.

The B.S. Minor in Statistics may be taken by either teaching or non-teaching degree candidates; this is not a certifiable minor for teaching.

REQUIRED COURSES (15-17 S.H.)

Mathematics (6-8 s.h.)

130 Matrix Algebra (3) OR

260 Differential Equations & Linear Algebra (4)

140 Applied Calculus (3) OR

155 Mathematics for Earth and Life Sciences II (3) OR

160 Calculus I (4)

Statistics (3 s.h.)

STAT 110 Fundamentals of Statistics (3) OR

STAT 210 Statistics (3) OR

STAT 303 Introduction to Engineering Statistics (3) OR

STAT 305 Biometry (3) OR

DIS 220 Business Statistics (3) OR

PSY 231 Statistics (3)

Two of the following six courses (6 s.h.):

STAT 350 Design of Samples & Surveys (3)

STAT 355 Nonparametric Statistics (3)

STAT 360 Regression Analysis (3)

STAT 365 Experimental Design & Analysis (3)

STAT 415 Multivariate Analysis (3)

STAT 425 Modern Methods of Data Analysis (3)

ELECTIVES (6 S.H.)

Select 6 s.h. from Group I and Group II. (At most 3 s.h. from Group II.)

Group I - Statistics

MATH 220 Combinatorics and Graph Theory (3)

* STAT 350 Design of Sample & Surveys (3)

* STAT 355 Nonparametric Statistics (3)

* STAT 360 Regression Analysis (3)

* STAT 365 Experimental Design & Analysis (3)

* STAT 415 Multivariate Analysis (3)

* STAT 425 Modern Methods of Data Analysis (3)

STAT 450 Mathematical Statistics I (3)

STAT 460 Mathematical Statistics II (3)

* Can be used as an elective course if not used as a required course

Group II - Application Areas

Up to 3 s.h. from the following courses

BIO 310 (3), 312 (3), CS 231 (3), 234 (3), 234 (3), 298 (3)

ECON 304 (3), 450 (3), FIN 335 (3), 360 (3), 423 (3)

HHP 403 (3), MKTG 320 (6), MATH 340 (3), 420 (3), 430 (3),

435 (3)

NURS 375 (3), POLS 420 (3), PSY 308 (5), 350 (3), SOC 376 (3)
STAT 115 (1), 255 (3), 289 (1-3), 290 (1-4), 310 (3), 320 (3),
321 (3), 322 (3), 440 (3), 488 (1-6), 489 (1-3), 490 (1-4)

Mathematics and Statistics Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicum. The P/N/C option is available to non-majors unless otherwise noted.

All courses offered every semester unless indicated differently.

Mathematics

050 - Intermediate Algebra-3 S.H.

Quarter Course: MATH 113.

A study of basic algebra for the student who has not successfully completed two years of high school algebra. MATH 050 is a non-degree credit course and will not count toward meeting minimum total credit requirements for graduation. P/N/C only.

100 - Survey of Mathematics-3 S.H.

Quarter Course: MATH 111.

Contemporary application of mathematical topics selected from algebra, statistics, management science, geometry and social choice. Grade only. Prerequisite: qualifying score on the mathematics placement exam or MATH 050.

110 - Finite Mathematics-3 S.H.

Quarter Course: MATH 121.

Applications of elementary mathematics on matrices, linear programming, probability, and statistics to real-life problems. This course provides the non-calculus mathematics background necessary for students in business, management, and social sciences.

Prerequisite: qualifying score on the mathematics placement exam or MATH 050.

120 - Precalculus-4 S.H.

Quarter Course: MATH 115, 116, 120.

A study of topics designed to give students the skills necessary for successful completion of calculus. Equation solving, graphing, functions and trigonometry are some of the main topics covered.

Prerequisite: qualifying score on the mathematics placement exam or MATH 050.

130 - Matrix Algebra-3 S.H.

Quarter Course: MATH 123, 217.

An introduction to matrix algebra and elementary vector spaces with an emphasis on computation. Prerequisite: MATH 120

140 - Applied Calculus-3 S.H.

Quarter Course: MATH 122.

An intuitive approach to calculus for students in business, management or the social sciences. Emphasis throughout is to enhance students' understanding of how mathematics is used in real-world applications. Prerequisite: qualifying score on the mathematics placement exam or MATH 120.

150, 155 - Mathematics for the Earth and Life Sciences I, II- Each 3 S.H.

A two-semester sequence designed to develop the algebraic, trigonometric, statistical and calculus skills of students through modeling applications. Prerequisite: qualifying score on the mathematics placement exam or MATH 050.

160, 165 - Calculus I, II-Each 4 S.H.

Quarter Course: MATH 125, 126, 127.

Differential and integral calculus of functions of a single variable. Two semesters in sequence. Prerequisite: qualifying score on the mathematics placement exam or MATH 120.

161 - Calculus Companion I: Skills for Success-1 S.H.

Quarter Course: MATH 125.

A course that reinforces students' algebraic and trigonometric skills in the context of Calculus I. Intended to be taken concurrently with the instructor's Calculus I course, students' abilities with algebra and trigonometry are improved upon as they are needed in the calculus. Prerequisite: concurrent enrollment in instructor's section of MATH 160 or instructor's permission.

166 - Calculus Companion II: Toward Your Continued Success-1 S.H.

Quarter Course: MATH 126.

Provides students with increased ability with topics of Calculus I as these are required in the development of Calculus II. Instruction is

given in the application of the methods of calculus to new material as introduced in second semester calculus. Prerequisite: concurrent enrollment in instructor's section of MATH 165 or instructor's permission.

210 - Discrete Mathematics and Foundations-4 S.H.

Quarter Course: MATH 218, 316.

Introductory discrete mathematics including symbolic logic, elementary number theory, sequences, sets and combinatorics. Valid and invalid argument forms are studied, and direct and indirect methods of proof are introduced. Prerequisite: MATH 110 or MATH 120 or MATH 150.

220 - Combinatorics and Graph Theory-3 S.H.

Combinatorics topics will include permutations, combinations, multisets, sequences, generating functions, inclusion-exclusion, and recursion. Combinatorics topics will focus on applications in probability. Graph theory topics will include planarity, transversibility, trees, and directed graphs. Prerequisites: MATH 110 or MATH 120 or MATH 150 or sufficient score Calculus Readiness Mathematics Placement Exam. Offered each semester.

260 - Multivariable Calculus-4 S.H.

Quarter Course: MATH 329.

A continuation of MATH 165. Partial differentiation and multiple integration are studied. Prerequisite: MATH 165.

270 - Differential Equations and Linear Algebra-4 S.H.

Quarter Course: MATH 217, 330.

Solution techniques for ordinary differential equations including boundary/initial value problems and systems of first-order equations. Topics include linear homogeneous and non-homogeneous differential equations and the Laplace transform. Methods of linear algebra are studied as they apply to the solution of differential equations. Prerequisite: MATH 165.

280 - Special Topics-1-3 S.H.

Quarter Course: MATH 289.

Exposure to lower-division mathematical topics not included in other courses. Prerequisite: determined by topics. Offered on demand.

310 - Number Theory-3 S.H.

Quarter Course: MATH 357.

A study of primes, divisibility, congruences, number-theoretic functions and diophantine equations. Prerequisite: MATH 165 and MATH 210. Offered spring semester.

320 - Theory of Functions of a Complex Variable-3 S.H.

Quarter Course: MATH 432.

The calculus of functions of a complex variable including differentiability, analyticity, and integration. Additional topics include the residue theorem. Prerequisite: MATH 260. Offered alternate fall semesters.

330, 335 - Advanced Calculus I, II-Each 4 S.H.

Quarter Course: MATH 460, 461, 462.

A systematic approach to the theory of differential and integral calculus for functions and transformations in several variables.

Prerequisite: MATH 210 and MATH 260.

340 - Advanced Linear Algebra-3 S.H.

Quarter Course: MATH 417.

A continuation of MATH 130 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 130 and MATH 210. Strongly recommended: Completion of MATH 160 and MATH 165 prior to enrollment. Offered alternate spring semesters.

410 - History of Mathematics-3 S.H.

Quarter Course: MATH 408.

General view of the historical development of the elementary branches of mathematics. Prerequisites: MATH 160 and MATH 210. Offered fall semester.

420 - Numerical Analysis-4 S.H.

Quarter Course: MATH 425, 426.

Numerical solution of equations, numerical interpolation, differentiation, and integration, numerical linear algebra, numerical solution of differential equations with analysis and use of algorithms and related software. Prerequisite: CS 231 or CS 234 and MATH 260. Offered alternate spring semesters.

430 - Operations Research: Linear Programming-3 S.H.

Quarter Course: MATH 440.

An introduction to linear programming, including the simplex

method. Other topics chosen from duality, sensitivity analysis, and the transportation and assignment problems. Prerequisite: one calculus course. Recommended: one linear algebra course. Offered alternate fall semesters.

435 - Operations Research: Modeling-3 S.H.

Quarter Course: MATH 441.

This course emphasizes mathematical model building: problem identification and model construction. Topics chosen from among network flow analysis, nonlinear mathematical programming, queuing theory, simulation, integer programming and Markov chains. Prerequisite: one calculus course. Recommended: one course in probability and statistics, and more than one course in calculus. Offered alternate spring semesters.

440 - Abstract Algebra-4 S.H.

Quarter Course: MATH 317.

Axiomatic development of groups, rings and fields. Prerequisite: MATH 210. Offered fall semester.

450 - Introduction to Topology-3 S.H.

Quarter Course: MATH 445.

A study of indexed families of sets, mappings, diagrams, continuity, neighborhoods, limit points, open and closed sets. Prerequisites: MATH 165 and MATH 210. Offered alternate fall semesters.

460 - Real Analysis-3 S.H.

Quarter Course: MATH 470.

Measurable sets, measurable functions, and the theory and methods of Lebesgue integration. Additional topics at the instructor's discretion, e.g., summability, L theory of Fourier series, orthogonal expansions in L, famous theorems of analysis. Prerequisites: MATH 330 and MATH 335. Offered alternate spring semesters.

470 - Math Projects-1-4 S.H.

Quarter Course: MATH 488

Practical experience in working on real problems or research under the supervision of a faculty member. Prerequisite: instructor's permission. Offered on demand.

480 - Special Topics-1-3 S.H.

Quarter Course: MATH 489.

Exposure to mathematical topics not included in other courses. Prerequisite: determined by topics. Offered on demand.

490 - Independent Problems in Mathematics-1-4 S.H.

An opportunity to continue study of selected topics. Prerequisite: instructor's permission. Offered on demand.

Mathematics Education

125 - Mathematics for Elementary Teachers-4 S.H.

Quarter Course: MATH EDUC 110.

The study of concepts and properties of operations essential to mathematics in the elementary and middle school grades. Prerequisite: completion of basic skills mathematics (MATH) requirement.

201 - Technology Based Geometry and Other Essential Mathematics for Elementary Teachers-4 S.H.

Quarter Course: MATH EDUC 120, 201.

Study of additional mathematical topics essential to mathematics in the elementary and middle school grades including Euclidean geometry. Prerequisite: MTED 125. Offered spring semester.

289 - Special Topics-1-3 S.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-1-3 S.H.

An opportunity to study selected lower-division topics in mathematics education. Prerequisite: instructor's permission. Offered on demand.

320 - Teaching Mathematics in the Secondary Schools I-3 S.H.

Organization and methods of teaching mathematics in the secondary school. The course includes a Teaching Assistantship experience. Prerequisites: MATH 165, MATH 210 and EDUC 306. Offered spring semester.

322 - Modern Geometry-4 S.H.

Quarter Course: MATH EDUC 322, 489.

This course is designed to give the prospective teacher of secondary school geometry an exposure to the concepts of non-Euclidean geometries, their relation to, and their impact on secondary school geometry. Teaching methodology and related items will be incorpo-

rated throughout the course. Prerequisites: MATH 165 and MATH 210. Offered spring semester.

420 - Teaching Mathematics in the Secondary Schools II-3 S.H.

The course is an extension of MTED 320 with emphasis on appropriate uses of technology, teaching strategies, assessment, learning theory related to mathematics and research on current issues in mathematics education. Prerequisite: MTED 320. Offered fall semester.

421 - Middle School Methods in Mathematics-1 S.H.

Quarter Course: MTED 489.

Organization and methods of teaching mathematics in the middle school. Prerequisite: MATH 210 or MTED 125. Offered fall semester.

489 - Special Topics-1-3 S.H.

Exposure to mathematics education topics not included in other courses. Prerequisite: determined by topics.

490 - Independent Problems in Mathematics Education-1-4 S.H.

An opportunity to continue study of selected topics in mathematics education. Prerequisite: instructor's permission.

Statistics

110 - Fundamentals of Statistics-3 S.H.

Quarter Course: STAT 208.

Introductory statistics with emphasis on applications. NOTE: Students who have completed MATH 140 or MATH 160 should take STAT 210 instead of STAT 110. Prerequisite: Qualifying score on the mathematics placement exam or MATH 050.

115 - Laboratory in Statistics-1 S.H.

Quarter Course: STAT 219.

This course will provide experience in collecting data, analyzing data, and the writing of statistical reports. Students will study statistical concepts through activities and projects which involve the collecting and analyzing of data. Techniques for summarizing, analyzing and interpreting large sets of data will also be discussed. Emphasis will be on practical problem-solving with real data sets using appropriate computer software packages. Prerequisite: completion of any introductory statistics course or instructor's permission.

210 - Statistics-3 S.H.

Quarter Course: STAT 279.

First course in statistics for students with a strong mathematics background. Prerequisites: MATH 140 or MATH 160.

250 - Actuarial Exam Preparation-2 S.H.

This is an independent study course designed to help students with actuarial exam preparation. Students enrolled in this course are required to take the appropriate exam at the date nearest completion of this course. Course cannot be applied toward fulfilling major or minor program requirements. Prerequisites: instructor's permission. Offered on demand.

255 - Data Management Using SAS-3 S.H.

An introduction to the statistical package SAS. The course will focus on DATA step programming and selected basic PROC routines, with an introduction to SAS/GRAPH if time permits. Offered fall semester.

289 - Special Topics-1-3 S.H.

Exposure to lower-division statistical topics not included in other courses. Prerequisite: determined by topics. Offered on demand.

290 - Independent Problems in Statistics 1-4 S.H.

Exposure to statistical topics not included in other courses. Prerequisite: instructor's permission. Offered on demand.

303 - Introduction to Engineering Statistics-3 S.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 210 and STAT 303. Prerequisite: MATH 160. Offered fall semester.

305 - Biometry-3 S.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 150 or MATH 155 or instructor's permission. (Cannot be used as a MATH or STAT elective for mathematics, mathematics education or statistics majors.)

310 - Intermediate Statistics-3 S.H.

Quarter Course: STAT 309.

A second course in statistics covering regression, measures of association, and analysis of variance. Interpretation of computer output and applications will be emphasized throughout. Prerequisites: STAT 110, STAT 210, STAT 303, STAT 305, PSY 231 or equivalent. Credit will not be given for STAT 310 if the student has completed STAT 360 or STAT 365.

320 - Statistical Quality Control-3 S.H.

Quarter Course: STAT 310.

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 210). Offered fall semester.

321 - Industrial Design of Experiments I-3 S.H.

Quarter Course: STAT 311.

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 210). Offered spring semester.

322 - Industrial Design of Experiments II-3 S.H.

A second course in experimental design methods in industry. Topics may include empirical model building, review of factorial and fractional factorial designs, process improvement with steepest ascent, analysis of response surfaces, experimental designs for fitting response surfaces, Taguchi's robust parameter designs, experiments with mixtures. Prerequisite: STAT 321 or instructor's permission. Offered alternate fall semesters.

330 - Probability-3 S.H.

Quarter Course: STAT 318.

Introduction to basic ideas and fundamental laws of probability and statistics. Prerequisites: MATH 140 and MATH 165.

350 - Design of Samples and Surveys-3 S.H.

Quarter Course: STAT 409.

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 210) and MATH 120. Offered fall semester.

355 - Nonparametric Statistics-3 S.H.

Quarter Course: STAT 403.

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 110 or STAT 210. Offered alternate fall semesters.

360 - Regression Analysis-3 S.H.

Quarter Course: STAT 411.

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 210) and MATH 120 and completion of or concurrent enrollment in MATH 130 or MATH 270 is recommended. Offered fall semester.

365 - Experimental Design and Analysis-3 S.H.

Quarter Course: STAT 412.

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 210) and MATH 120. STAT 360 is recommended. Offered spring semester.

415 - Multivariate Analysis-3 S.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-oriented course with emphasis on application. Prerequisites:

MATH 130 or MATH 270, STAT 360 or instructor's permission.
Offered alternate spring semesters.

425 - Modern Methods of Data Analysis-3 S.H.

Quarter Course: STAT 479.

An introduction to the use of the computer as a powerful tool in data analysis. Topics will include statistical graphics, advanced regression techniques, curve fitting and smoothing, generalized additive models, CART, multivariate techniques, cross-validation and the bootstrap. Additional topics that may be covered are random number generation and Monte Carlo simulation methods. Prerequisites: MATH 165 and STAT 360. Offered alternate spring semesters.

440 - Epidemiology-3 S.H.

Quarter Course: STAT 450.

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 spring semester.

450, 460 - Introduction to Mathematical Statistics I, II- Each 3 S.H.

Quarter Course: STAT 318, 418, 419.

A mathematical approach to probability and statistics. Prerequisite: MATH 260 and completion of or concurrent enrollment in MATH 220.

455 - Stochastic Processes-3 S.H.

Quarter Course: STAT 466.

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 450.

488 - Statistics Projects-1-6 S.H.

Practical experience working on real problems under the supervision of a faculty member experienced in statistics. Prerequisite: instructor's permission. Offered on demand.

489 - Special Topics-1-3 S.H.

Exposure to statistical topics not included in other courses. Prerequisite: determined by topics. Offered on demand.

490 - Independent Problems in Statistics-1-4 S.H.

An opportunity for continued study of selected topics. Prerequisite: instructor's permission. Offered on demand.

492 - Practicum in Statistics-3-6 S.H.

Provides the student with experience and training in statistical techniques. The student will work a minimum of 100 hours (3 credits) or a minimum of 200 hours (6 credits) on a job utilizing statistics. Prerequisite: instructor's permission. Open to B.S. Option C Statistics majors only. P/NC only. Offered on demand.

MEDICAL TECHNOLOGY

Pasteur 219, (507) 457-5462

Web Address: http://bio.winona.msus.edu/biohp/acad_deg.htm

Dr. Frances R. Ragsdale, Associate Professor, B.S. Eastern Oregon State; M.S. Southeastern Louisiana University; Ph.D. University of Iowa, 1993

Adjunct Faculty Medical Technology Program

(ASCP: American Society of Clinical Pathologists)

Community Memorial Hospital, Winona, Minnesota

William McNeil, MD, Medical Director

Dennis A. Rollman, B.S., M.T. (ASCP), MBA, Laboratory Director

*Edward Hines Jr. VA Hospital, Hines, Illinois

Myron E. Rubnitz, MD, Medical Director

Donna M. Wray, MT (ASCP), Program Director

*Mercy Hospital Medical Center, Des Moines, Iowa

Vijaya Dhannavada, MD Medical Director

Stacy Sime, MT (ASCP), Program Director

*Hennipen County Medical Center, Minneapolis, Minnesota

John T. Crosson, MD, Pathologist, Medical Director

Pat Elringer, MEd, MT (ASCP), SBB, Program Director

*Sacred Heart Hospital, Eau Claire, Wisconsin

Thomas Hadely, MD, Pathologist, Medical Director

Ken Johnson, MT (ASCP), Program Director

(*Schools which have affiliated internship programs with WSU.)

The Medical Technology Program is a four-year course of instruction leading to the degree of Bachelor of Science in Medical Technology. After completing board examinations, individuals with a degree in Medical Technology find employment in clinical settings, where they are responsible for routine laboratory tests on body fluids. Frequently, at a large hospital or clinic, an individual will work primarily in one area of the field, such as maintaining a blood bank. Many smaller institutions assign more diverse duties to broadly-trained medical technologists. First-year Medical Technology Majors must consult with the program director soon after arrival on campus. The first three years consist of intensive coursework in the basic sciences. The fourth year is a one-year clinical internship at an approved school of medical technology. To qualify for the clinical internship, students must complete the course of study outlined below with a minimum grade point average of 3.0 (on a 4.0 scale).

IT SHOULD BE NOTED THAT ACCEPTANCE INTO THE FOURTH YEAR OF TRAINING IS NOT AUTOMATIC UPON COMPLETION OF THE THIRD YEAR AT WSU. 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. 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 semester basis by WSU, and students will be evaluated each semester.

Following the successful completion of the clinical fourth year, the student is granted the degree of Bachelor of Science with a major in Medical Technology. Upon satisfactory completion of the program, the student is eligible to apply for examination by two certifying agencies: The National Accrediting Agency for Clinical Laboratory Science (NAACLS) and the 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 director prior to registration. All student programs (schedules) must be approved each semester by the Director of Medical Technology.

B.S. MAJOR - MEDICAL TECHNOLOGY

REQUIRED COURSES (124 - 126 S.H.)

GENERAL EDUCATION COURSES (30 S.H.)

Skill Requirements (9 s.h.)

ENG 111 English Composition (4)

CMST 191 Speech Communication (3)

MATH (The 3 s.h. MATH requirement is met below with MATH 150 & 155 or MATH 120.)

Select courses from the approved list of Physical Education activities courses (2).

Humanities (6 s.h.)

Select courses from the approved list of Humanities courses from two departments.

Natural Science (0 s.h.)

(The 6 s.h. Natural Science requirement is met below with CHEM 212, 213 & PHYS 201.)

Social Science (6 s.h.)

Select courses from the approved list of Social Science courses from two departments.

Different Culture (6 s.h.)

Select courses from the approved list of Different Culture courses from two departments.

Allied Studies (3 s.h.)

Select a course from the approved list of Allied Studies courses.

MAJOR AREA COURSES (30-32 S.H.)

Required Biology Courses (25 s.h.)

241 Principles of Biology I (4)

242 Principles of Biology II (4)

308 Cell Biology (3)

307 Cell Biology Lab (1)

409 General Microbiology (4)

443 Urinalysis (1)

444 Hematology (2)

445 Immunology (3)

460 Parasitology (3)

NOTE: BIO 241 and 242 should be taken prior to BIO 308 and BIO 307.

MAJOR ELECTIVES (5-7 S.H.)

BIOL 310 Genetics (3)

BIOL 333 Medical Laboratory Techniques (1)

BIOL 201 Human Anatomy (4)

BIOL 323 General Physiology (5)

STAT 305 Biometry (4)

ADDITIONAL REQUIREMENTS (32-34 S.H.)

Chemistry (16 s.h.)

* 212 Principles of Chemistry I (4)

* 213 Principles of Chemistry II (4)

340 Organic Chemistry (4) OR

350 Principles of Organic Chemistry I (4)

Chemistry Electives (4 s.h.)

400 Biochemistry (4) OR

425 Analytical Chemistry I (4) OR

426 Analytical Chemistry II (4)

Mathematics (4-6 s.h.)

* 120 Precalculus, Functions & Graphs (4) OR

* 150, 155 Mathematics for the Earth and Life Sciences I, II (Each 3 s.h.)

Physics (8 s.h.)

* 201 General Physics I (4)

202 General Physics II (4)

NOTE: PHYS * 221 and PHYS 222 may be taken in place of the above series. Be aware that MATH 160 is a prerequisite for PHYS 221 and that this substitution may prevent completion of the major in four years.

CLINICAL EDUCATION (32 S.H.)

BIOL 450 Medical Technology I (12)

BIOL 451 Medical Technology II (12)

BIOL 452 Medical Technology III (4)

BIOL 453 Medical Technology IV (4)

NOTE: The clinical training can be completed at any approved clinical training site.

Other electives: Some clinical schools require a course in statistics; therefore it is recommended that students select STAT 305 as an elective in the Major Electives above.

MUSIC

Performing Arts Center, Room 146, (507) 457-5250

Mechell (Chairperson), Chuang, Draayer, Higgins, Hoch, MacDonald, Schmidt, Vance.

Faculty

Gloria Chuang, Assistant Professor; B.M., M.M., Julliard School; D.M.A., University of Michigan; 1997 -

Suzanne Collier Draayer, Associate Professor; B.M. Furman University; M.S. Vanderbilt University; D.M.A. University of Maryland College Park, 1993 -

Edward Higgins, Assistant Professor; B.F.A., California Institute of Arts; B.M., M.M., Juillard School; 1998 -

James S. Hoch, Professor; B.M., University of the Pacific, Stockton (CA); M.M., D.M.A., University of Colorado; 1992 -

R. Richard MacDonald, Assistant Professor, Music; B.M., M.M., University of North Texas; Ph.D., University of Northern Colorado; 1997 -

Harry Mechell, Professor; B.Mus., M.M., Temple University; D.M.A., University of Illinois; 1989 -

Catherine Schmidt, Associate Professor, Music; B.S., M.S., University of Illinois, Urbana; Ph.D., University of Wisconsin-Madison; 1991 -

Paul Vance, Associate Professor; B.A., Moorhead State University; M.A., University of Wisconsin-Milwaukee; Ph.D. University of Michigan-Dearborn; 1996 -

The Department of Music offers courses of study leading to a B.S. or a B.A. degree with a major in Music. The department is committed to providing music degree programs that foster creativity, skill development, critical thinking, independent learning, and understanding of and respect for multiple perspectives.

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. WSU 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

All courses in the major or minor must be taken for a grade except for the Internship. The P/NC option is available to non-majors unless otherwise noted.

Additional Requirements:

Students must achieve a "C" or better in all required music courses within a music degree program in order to count the courses for graduation.

Applied Instruction Auditions:

All entering music majors are required to audition for the appropriate studio instructor in their primary performing medium. (These auditions can be in conjunction with scholarship auditions.)

Theory Placement Exam:

This exam is required for those students requesting advanced placement in the theory sequence. It is offered prior to the beginning of fall semester each year.

Assessment Pretest and Posttest:

All entering music majors are required to take a departmental assessment pretest during the first month of the fall semester. The same test will be administered prior to graduation. This testing process is for department level assessment and does not affect the student's degree program in any way.

Concert Attendance 001:

All majors and minors are required to register for this course. Majors - 80% of concerts (8 semesters); Minors - 40% of concerts (4 semesters).

B.A. MAJOR IN MUSIC (LIBERAL ARTS)

48-49 S.H. (No Minor Required)

CORE REQUIREMENTS (29 S.H.)

- 114 World Music (3)
- 201, 202 Music Theory I, II (8)
- 203, 204 Music Theory III, IV (8)
- 250 Sight Singing I (2)
- 350 Sight Singing II (2)
- 351 Music of the Middle Ages, Renaissance, Baroque (3)
- 352 Music of the Classical Period, 19th and 20th Centuries (3)

REQUIRED COURSES (14-15 S.H.)

- 241, 242, 243 Band, Orchestra, Choir (4)
- Applied Lessons in Primary Performance Medium (8)
- 475 Instrumental Literature & Styles (3) OR
- Choice of:
- 471, 472, 473 Vocal Literature Class (2)

CAPSTONE PROJECT (2 S.H.)

- 491 Independent Study (2)

ELECTIVES (3 S.H.)

Electives to be taken from areas of theory and/or history literature.

Students must pass a piano proficiency exam. (Students may enroll in piano classes to help prepare for passing the proficiency, however, these piano classes do not count towards degree.)

B.A. MAJOR IN MUSIC PERFORMANCE

82 S.H. (No Minor Required)

CORE REQUIREMENTS (29 S.H.)

- 114 World Music (3)
- 201, 202 Music Theory I, II (8)

- 203, 204 Music Theory III, IV (8)
- 250 Sight Singing I (2)
- 350 Sight Singing II (2)
- 351 Music of the Middle Ages, Renaissance, Baroque (3)
- 352 Music of the Classical Period, 19th and 20th Centuries (3)

REQUIRED COURSES (47 S.H.)

- 306 Conducting (2)
- Applied Lessons in Primary Performance Medium (28)
- Major Performing Large Ensemble (8): Choose one: 241, 242, 243
- Pedagogy & Literature (6)

Pedagogy & Literature choices:

Vocal Performance Major

- 415 Vocal Pedagogy (2)
- 471 Italian Vocal Literature (2)
- 472 German Vocal Literature (2)
- 473 French Vocal Literature (2)

Piano Performance Major

- 416 Piano Pedagogy (2)
- 478 Piano Literature II (2)
- 337 Accompanying (1-2)

Instrumental Performance Major

Choose two:

- 311 Woodwind (1)
- 312 String (1)
- 313 Percussion (1)
- 314 Brass (1)
- 252 Jazz Improvisation (2)
- 475 Instrumental Literature (3)

Junior & Senior Recital (3)

Participation in fall chamber ensemble required.

ELECTIVES (6 S.H.)

Electives to be taken from areas of theory and/or history and literature.

B.S. MAJOR - MUSIC EDUCATION

(TEACHING)

142 S.H. (This number includes all general education requirements)

Both the Music Education degree program and the Professional Education Sequence are subject to changes in Board of Teaching licensure requirements. Check with your advisor for current program/licensure requirements.

GENERAL EDUCATION (21 S.H.)

I. BASIC SKILLS (11 S.H.)

English 111 (4)

CMST 191 – Fundamentals of Speech Communication (3)

Physical Education Activities (fulfilled by PER 116 or 118) (1)

Mathematics (3)

II. HUMANITIES (0) (fulfilled by THDA 115)

III. SOCIAL SCIENCE (general education elective) (3)

IV. NATURAL SCIENCE (general education elective) (4)

V. DIFFERENT CULTURE (general education elective) (3)

VI. ALLIED STUDIES (fulfilled by HHP 204 below) (0)

REQUIRED COURSES - BOTH VOCAL AND INSTRUMENTAL LICENSURES (61 S.H.)

114 World Music (3)

201, 202 Music Theory I, II (8)

203, 204 Music Theory III, IV (8)

252 Jazz Improvisation (2)

Major Performing Large Ensemble (6):

Choose one: 241, 242, 243

301 Orchestration & Instrumentation (2)

306 Conducting I (2)

406 Conducting II (1)

298 Foundations & Principles of Music Education (2)

322 Elementary Music Methods I (3)

332 Elementary Music Methods II (2)

323 Secondary Music Methods (3)

351 Early Music through Baroque (3)

351 Classic through 20th centuries (3)

Private instruction in Major Applied Field (12)

480—Recital (1)

ADDITIONAL REQUIREMENTS FOR INSTRUMENTAL MAJORS (12 S.H.)

311 Woodwind Methods (1)

312 String Methods (1)

313 Percussion Methods (1)

314 Brass Methods (1)

341 Woodwind Methods II (1)

342 String Methods II (1)

343 Percussion Methods II (1)

344 Brass Methods II (1)

236 Voice Class (2)

425 Instrumental Ensemble Administration & Marching Band Techniques (2)

ADDITIONAL REQUIREMENTS FOR VOCAL MAJORS (12 S.H.)

Choose two (2):

311 Woodwind Methods (1)

312 String Methods (1)

313 Percussion Methods (1)

314 Brass Methods (1)

415 Vocal Pedagogy (2)

422 Music Seminar on Choral Techniques & Materials (2)

Private instruction in Minor Applied Field (0)

(Substitution of up to 2 credits of 337 permitted; Substitution of up to 2 credits of 335 permitted)

OTHER REQUIRED COURSES (INSTRUMENTAL AND VOCAL LICENSURES) (16 S.H.)

THAD 115 Dance Appreciation (3) (counts as humanities gen-ed)

Choose one (counts as Humanities gen-ed) (3):

THDA 111 What is Theater? (3)

THDA 119 Play Reading (3)

THDA 131 Performance I For Everyone (3)

THDA 141 Oral Interpretation I (3)

THDA 210 Dramatic History and Literature I (3)

THDA 310 Dramatic History and Literature II (3)

Choose one (counts as Humanities gen-ed) (3)

ART 109 Introduction to Art (3)

ART 114 2-D Design (3)

ART 115 3-D Design (3)

ART 118 Drawing I (3)

ART 221 Art History I (3)

ART 222 Art History II (3)

ART 224 American (3)

Choose one (1) (counts as Physical Education gen-ed):

PER 116 Modern Dance (1)

PER 118 Jazz Dance I (1)

HHP 204 Personal & Community Health (counts as Allied Studies gen-ed) (3)

SPED 400 Education of the Exceptional Child (3)

PROFESSIONAL EDUCATION SEQUENCE (32 S.H.)

EDUC 305, 308, 312, 429, 449, 459, 465 (Student Teaching)

In addition to the above course requirements, all students must:

1) Pass a piano proficiency exam

2) Pass a guitar proficiency exam

3) Participate in small ensemble performance

4) Attend a specified proportion of music education workshops/seminars yearly

B.S. MAJOR – MUSIC (MUSIC BUSINESS)

93 S.H. (No Minor Required)

CORE REQUIREMENTS (56 S.H.)

114 World Music (3)

201, 202 Music Theory I, II (8)

203, 204 Music Theory III, IV (8)

Major Performing Large Ensemble (4):

Choose one: 241, 242, 243

Applied Lessons in Primary Performance Medium (8)

261 Applied Instruction - Piano (4)

307 Music Technology (2)

351 Music of the Middle Ages, Renaissance, and Baroque (3)

352 Music of the Classical Period, 19th and 20th Centuries (3)

399 Music Internship (10)

491 Independent Study (3)

ADDITIONAL REQUIREMENTS (10 S.H.)

Select one:

301 Orchestration & Instrumentation (2) OR

306 Conducting (2)

Select two:

311 Woodwind Methods (1)

312 String Methods (1)

313 Percussion Methods (1)

314 Brass Methods (1)

Select two:

110 History of Jazz (3)

111 Film Music (3)

122 History of Rock (3)

BUSINESS REQUIREMENTS (27 S.H.)

Accounting (6 s.h.)

ACCT 211 Financial Accounting Principles (3)

ACCT 212 Managerial Accounting Principles (3)

Economics and Finance (9 s.h.)

ECON 201 Principles of Microeconomics (3)

ECON 202 Principles of Macroeconomics (3)

FIN 360 Corporate Finance (3)

Business Administration (9 s.h.)

- DIS 220 Business Statistics (3)
 BUSA 291 Legal Environment of Business (3) OR
 BUSA 301 Business Law I (3)
 BUSA 312 Business Computer Programs (3)

Marketing (3 s.h.)

- MKTG 300 Principles of Marketing (3)

B.A. MINOR - MUSIC

22 S.H.

REQUIRED COURSES (19 S.H.)

- 114 World Music (3)
 201 Music Theory I (4)
 202 Music Theory II (4)

Major Performing Large Ensemble (4) Choose one: 241, 242, 243

Applied lessons in primary performance medium (4)

(Substitution of up to 2 credits of 337 permitted)

ELECTIVES (3 S.H.)

Electives in Music must total 3 credits.

B.S. MINOR - MUSIC

28 S.H.

Minor suggested for Elementary Education Majors. Music Minor not for licensure.

REQUIRED COURSES (28 S.H.)

- 114 World Music (3)
 201 Music Theory I (4)
 202 Music Theory II (4)

Major Performing Large Ensemble (4) Choose one: 241, 242, 243

261 Piano (Studio instruction) (4) OR 234, 235, 335

(Substitution of up to 2 credits of 337 permitted).

- 298 Foundations & Principles of Music Education (2)
 306 Conducting (2)
 322 Elementary Music Methods (3)

Music Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicum. The P/NC option is available to non-majors unless otherwise noted.

Applied Classes

234 - Class Piano I-2 S.H.

Note reading and fundamentals of piano playing for the beginner. Offered each semester.

235 - Class Piano II- 2 S.H.

Continuation of MUS 234. Further development of keyboard skills. Short piano pieces. Offered yearly.

236 - Class Voice-2 S.H.

Classification of voices, English diction, fundamentals of vocal techniques. Performance of songs in English and Italian. Offered yearly.

335 - Class Piano III-2 S.H.

This course is designed to help students continuing their various keyboard skills, especially for students who are in preparation or taking the Piano Proficiency Exam at the end of the student's sophomore year. Priorities will be given to those who will be taking the PPE.

337 - Accompanying-1-2 S.H.

Quarter Course: 361.

Survey of accompanying techniques and styles. Assignment to specific accompanying duties. May be repeated up to total of 6 credits. Prerequisite: department's permission. Offered each semester.

Individual Instruction

Private lessons meeting once a week may be repeated for credit and are offered each semester. Entering music students must pass an entrance audition to qualify for the 160-level series of lessons. Students not fulfilling requirements for 160-level series lessons are placed in 060-level series lessons until they are ready for the 160-level series. Piano students not meeting 160-level requirements may

be placed in either piano class or 061 lessons. All 060-level series lessons are half-hour lessons for 2 semester hour credits. These credits do not count toward the major or minor for graduation. Credit is variable in the 160, 260, 360 and 460 series. Half-hour lessons receive 2 semester hour credits. One-hour lessons receive 4 semester hour credits. Enrollment in all applied lesson series requires the instructor's permission.

060-series: Students entering with limited music background. Instructor's permission required. 2 S.H.

160-series: Entering students with previous musical training and background. Students pursuing secondary performance medium. Instructor's permission required. 2 or 4 S.H.

260-series: Second-year students. Students must show sufficient progress in 160-level series lessons before enrolling for 260-level series lessons. Instructor's permission required. 2 or 4 S.H.

360-series: Third-year students. Students must show sufficient progress in 260-level series lessons before enrolling for 360-level series lessons. Instructor's permission required. 2 or 4 S.H.

460-series: Fourth-year students and beyond. Students must show sufficient progress in 360-level series lessons before enrolling in 460-level series lessons. Instructor's permission required. 2 or 4 S.H.

061, 161, 261, 361, 461 - Piano-2 or 4 S.H.

062, 162, 262, 362, 462 - Voice-2 or 4 S.H.

063, 163, 263, 363, 463 - Strings-2 or 4 S.H.

064, 164, 264, 364, 464 - Woodwinds-2 or 4 S.H.

065, 165, 265, 365, 465 - Brass-2 or 4 S.H.

066, 166, 266, 366, 466 - Percussion-2 or 4 S.H.

067, 167, 267, 367, 467 - Organ-2 or 4 S.H.

068, 168, 268, 368, 468 - Harpsichord-2 or 4 S.H.

Ensembles

Open to all students by audition. Repertory selected to acquaint the student with representative literature from all periods. Can be repeated for credit. Offered each semester.

141 - World Music Ensemble- 1 S.H., P/NC only (no audition necessary)

240 - Percussion Ensemble-1 S.H.

241 - Symphonic Wind Ensemble-1 S.H.

242 - Orchestra-1 S.H.

243 - Concert Choir-1 S.H.

244 - Jazz Ensemble-1 S.H.

245 - String Ensemble-1 S.H.

246 - Brass Ensemble-1 S.H.

247 - Woodwind Ensemble-1 S.H.

249 - Madrigal Ensemble-1 S.H.

History and Literature

109 - Introduction to Music-3 S.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 each semester.

110 - Introduction to Jazz-3 S.H.

A history of jazz in America; its African influences, its emergence as a recognizable style in the 19th century and its present-day varieties. Offered yearly.

111 - Film Music: Art Behind the Scenes-3 S.H.

This course will demonstrate the importance of music in perhaps the most important 20th century new entertainment and artistic medium known as Film. The course will progress from the early beginnings of the silent screen up to the present day. Students will learn the important, basic musical elements (i.e. melody, rhythm, harmony, etc) and how composers use them in film scoring. Students will do a "hands-on" project putting music to a film clip. No prior music experience necessary. Laptop is required.

113 - Women in Music-3 S.H.

An overview of the contributions made by women in creating, performing, teaching, and commissioning music. The course will examine the role of women in Western art and popular music, and in music of non-Western cultures.

114 - World Music-3 S.H.

A survey of selected world music cultures. Cultures covered are 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 yearly. Concert/Listening Lab Required.

115 - Music of East and Southeast Asia-3 S.H.

A survey of the music found in east and southeast Asia, focusing on the music of China and Japan along with selected countries in south-east Asia. Designed for the general student as well as the Music Major or Minor. Offered alternate years.

116 - Music of the Americas-3 S.H.

A survey of music cultures found in the Americas focusing on Native American music from both North and South America along with additional selected music traditions from The Americas such as African American music and Latin American music among others. Designed for the general student as well as the Music Major and Minor. Offered alternate years.

122 - The History of Rock Music - 3 S.H.

A history of rock and roll and pop/rock music; its diverse American influences, its emergence as a recognizable style in the 1950's and its symbiotic relationship with modern society. Offered alternate years.

351 - Music of the Middle Ages, Renaissance and Baroque-3 S.H.

Quarter Courses: 351, 352.

Study of the development of music from antiquity through c.1750. Heritage and central concepts of medieval theory and the rise of individual composers in the Renaissance. Study of multi-movement forms from the cyclic polyphonic mass to opera, oratorio and early instrumental genres. Prerequisite: MUS 204 or instructor's permission.

352 - Music of the Classical Period, 19th and 20th Centuries-3 S.H.

Quarter Courses: 352, 353.

Study of the development of music from c.1750 to the present day. Significant works of the growing art-music repertoire and careers of important composers. Changing roles of form and harmonic language, proliferating responses to the changing role of art music. Prerequisite: MUS 204 or instructor's permission. MUS 351 preferred.

440 - American Art Music-3 S.H.

Music in America from the time of the Puritans to the present day. Historical, biographical material and listening. For the general student as well as for Music Majors and Minors. Prerequisite: MUS 109 or equivalent. Offered occasionally.

445 - Art Music of the 20th Century-3 S.H.

A survey of the contemporary musical scene. The changes that have occurred in music since the beginning of this century. Historical, biographical material and record listening. Designed for the general student as well as for Music Majors and Minors. Prerequisite: MUS 109 or equivalent. Offered occasionally.

455 - Opera Literature-3 S.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-1-3 S.H.

Study of representative operas and musical plays, and production problems. Performance of scenes and/or complete works. Can be repeated up to 8 credits.

471 - Survey of Vocal Literature I (Italian)-2 S.H.

Songs and arias of the 17th and 18th centuries, Baroque performance practice, contemporary Italian songs. Offered alternate years. Prerequisite: MUS 351.

472 - Survey of Vocal Literature II (German)-2 S.H.

Lieder of Schubert, Schumann, Franz, Mendelssohn, Brahms, Strauss, Hugo Wolf and others. Offered alternate years.

473 - Survey of Vocal Literature III (French)-2 S.H.

Representative French songs of Faure, Duparc, Chausson, Debussy, Poulenc and others. Offered alternate years.

475 - Survey of Instrumental Literature and Styles-3 S.H.

Study of the rise of instrumental styles beginning with Renaissance and continuing through the Romantic Orchestra. Survey course studying representative works of various composers. Prerequisite: MUS 351. Offered occasionally.

477 - Piano Literature I-2 S.H.

Appropriate early keyboard and piano literature of the Baroque and classical periods. Performance and analysis of forms, genres, style and primary composers are studied. History of the piano included. Offered alternate years.

478 - Piano Literature II-2 S.H.

Piano literature of the Romantic, Impressionistic and Contemporary periods (including brief look at Nationalism). Continued developments in instrumental design of piano discussed. Offered alternate years.

480 - Recital-1-2 S.H.

Half recital (1 S.H.) or full recital (2 S.H.) of representative literature. May be repeated for credit. Prerequisite: Must be enrolled in 300 or 400 level lessons for half recital; 400 level lessons for full recital.

491 - Independent Studies in Music-1-6 S.H.

Course designed to offer advanced students the opportunity to work in a music area of special interest to them. May be taken for or repeated up to 6 credits. Prerequisite: department's permission. Offered each semester.

Methods and Education

298 - Foundations and Principles of Music Education-2 S.H.

Study of the historical foundations and principles of music education. Examination of selected current topics in music education. Prerequisite: MUS 202 or instructor's permission. Offered alternate years.

311 - Woodwind Methods I-1 S.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 I-1 S.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 I-1 S.H.

Class instruction in percussion instruments. History, literature and teaching methods for the Music Major or Minor. Offered alternate years.

314 - Brass Methods I-1 S.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 S.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-3 S.H.

Study of the fundamentals of music and methods for teaching music in the kindergarten and elementary grades. Students with an adequate background in music should consider MUS 322 as alternate to this course. Prerequisite: admittance to the Professional Education Sequence. Not for Music Majors. Not applicable toward B.A. degree. Offered each semester.

321 - Music in Special Education-2 S.H.

An overview of materials and methods used in teaching music to children who are physically or developmentally challenged. Offered occasionally.

322 - Elementary Music Methods I-3 S.H.

Study of material and methods for music instruction in the elementary grades. Not applicable toward the B.A. degree. Prerequisite: Admittance to the Professional Education Sequence. Offered alternate years.

323 - Secondary Music-3 S.H.

Study of material and methods for music in the secondary school. Not applicable toward the B.A. degree. Prerequisite: successful completion of guitar and piano proficiencies, and admittance to the Professional Education Sequence. Offered alternate years.

324 - Recreational Music-2 S.H.

Introduction to music techniques and fundamentals necessary for recreation programs. Offered alternate years.

332 - Elementary Music Methods II-2 S.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:

MUS 322. Successful completion of guitar and piano proficiencies and admittance to the Professional Education Sequence. Offered alternate years.

341 - Woodwind Methods II-1 S.H.

Continuation of the study of woodwind instruments. The course emphasizes pedagogical principles and materials available for the beginning level through high school including solo literature and small ensemble repertoire. Prerequisite: MUS 311 or instructor's permission. Offered alternate years.

342 - String Methods II-1 S.H.

Continuation of the study of string instruments. The course emphasizes pedagogical principles and materials available for the beginning level through high school including solo literature and small ensemble repertoire. Prerequisite: MUS 312 or instructor's permission. Offered alternate years.

343 - Percussion Methods II-1 S.H.

Continuation of the study of percussion instruments. The course emphasizes pedagogical principles and materials available for the beginning level through high school including solo literature and small ensemble repertoire. Prerequisite: MUS 313 or instructor's permission. Offered alternate years.

344 - Brass Methods II-1 S.H.

Continuation of the study of brass instruments. The course emphasizes pedagogical principles and materials available for the beginning level through high school including solo literature and small ensemble repertoire. Prerequisite: MUS 314 or instructor's permission. Offered alternate years.

399 - Music Internship-10 S.H.

Supervised experience in music business or industry designed by music faculty advisor, work supervisor and student. Prerequisite: successful completion of required music and business courses with a 2.5 GPA or better. Offered each semester. P/NC only.

410 - Music Supervision and Administration-3 S.H.

Problems of supervision and administration in public school music programs. Prerequisite: MUS 298. Not applicable toward the B.A. degree. Offered every three years.

415 - Vocal Pedagogy-2 S.H.

Techniques and problems of voice instruction. Current trends in vocal pedagogy. Offered alternate years.

416 - Piano Pedagogy-2 S.H.

Historical survey of the schools of playing and teaching throughout the course of the piano's development. Analysis and comparison of 20th century teaching methods and historical anthologies. Special unit addressing beginner's needs. Offered alternate years.

420 - Multicultural Music in the Elementary School-2 S.H.

Advanced study of the philosophic foundations and values of using music from a broad range of cultures in both the elementary classroom and the general music classroom. Development of multicultural materials, their cultural context and methodology for their use in classroom and music class settings. Prerequisite: MUS 320 or MUS 322 or equivalent or instructor's permission. Offered alternate years.

421 - Music in Early Childhood Education-2 S.H.

Advanced study of musical development in children from birth to nine years. Development and application of materials and methods for successfully teaching music to young children. Prerequisite: MUS 320 or MUS 322 or equivalent or instructor's permission. Offered alternate years.

422 - Music Seminar on Choral Techniques and Materials-2 S.H.
Quarter Course: 422G.

Criteria for selection of vocal music, examination of representative music suitable for groups at various levels of development, principals of programming, rehearsal techniques and organization. Offered alternate years.

423 - High School Solo Vocal Literature-2 S.H.

Quarter Course: 423.

Course designed to help the high school teacher choose vocal solo literature for all types of voices. Offered alternate years.

424 - High School Orchestra Methods-2 S.H.

Course is designed to assist high school teachers select music which is appropriate for groups of varying levels of development. Organizational and rehearsal procedures are addressed. Offered occasionally.

425 - Instrumental Administration and Marching Band Techniques-2 S.H.

Quarter Course: 425.

The organization and administration of elementary and secondary instrumental music programs, performance practice, rehearsal and marching band techniques. Prerequisite: instructor's permission. Offered alternate years.

435 - Wind Instrument Repair-2 S.H.

Quarter Course: 435G.

Care, maintenance and repair of woodwind and brass instruments. Offered occasionally.

490 - Music for Today's Schools: New Ideas in Music Education-1-3 S.H.

The objectives of this workshop are to offer new ideas or theories, elaborate on new trends and offer guidelines for improving public school programs. Course content changes each year. Can be repeated for credit.

Theory

120 - Introduction to Music Theory-3 S.H.

An introduction to the structure and notation of music found in past and current composition. Offered yearly.

201 - Theory I-4 S.H.

Quarter Course: 201, 202.

Scales; key signatures; intervals; 2-, 3- and 4-part writing; non-harmonic tones; simple harmonic progression and voice leading; beginning aural skills. Offered yearly.

202 - Theory II-4 S.H.

Quarter Course: 202, 203.

Continuation of 2-, 3- and 4-part writing and harmonic progression, melodic construction, binary and ternary forms, divisive and additive rhythm, diatonic seventh chords; aural skills. Prerequisite: MUS 201. Offered yearly.

203 - Theory III-4 S.H.

Quarter Course: 204, 205.

Continuation of 4-part writing, tertian structures greater than the octave, secondary dominants, modulation, Augmented 6th. Forms studied include Binary, Ternary, Variation as well as contrapuntal forms such as Invention and Fugue. Aural skills further developed. Prerequisite: MUS 202. Offered yearly.

204 - Theory IV-4 S.H.

Quarter Course: 205, 206.

Chromatic harmony. New harmonic approaches including twelve tone, polytonality, atonality and related 20th-century techniques. Aural skills further developed. Prerequisite: MUS 203. Offered yearly.

207 - Composition-2 S.H.

A study of the creative process. Original student compositions. Prerequisite: MUS 204 or equivalent. Offered yearly.

250 - Sight Singing-2 S.H.

Study in aural perception of interval and rhythmic relationships. Prerequisite: knowledge of musical notation. Offered yearly.

252 - Jazz Improvisation-2 S.H.

A study of the basic tools of jazz improvisation including scales, chord terminology, the blues, and basic jazz forms. Prerequisites: MUS 120 and MUS 201 or instructor's permission. Offered alternate years.

301 - Orchestration and Instrumentation-2 S.H.

Quarter Course: 301. Study of techniques, ranges and timbre of instruments. Fundamentals of scoring for band and orchestra. Prerequisite: MUS 204. Offered yearly.

302 - Jazz Ensemble Arranging-3 S.H.

Caring for large and small ensembles. Prerequisite: MUS 202 or equivalent. Offered occasionally.

306 - Conducting-2 S.H.

Techniques of conducting choral and instrumental groups. Offered yearly.

307 - Music Technology-2 S.H.

A survey of computer applications in the music field with an emphasis on MIDI sequencing and notation programs. Offered alternate years.

350 - Sight Singing II-2 S.H.

Continued study in aural perception of interval and rhythmic relationships. Development of skills needed to successfully read music at sight. Prerequisite: MUS 250. Offered yearly.

402 - Form & Analysis-3 S.H.

Analysis of compositions as to form, melodic and harmonic structure.
Students write original compositions modeled after works analyzed.
Offered alternate years.

403 - Counterpoint-3 S.H.

Strict counterpoint in 16th-century style, study of species.
Prerequisite: MUS 202. Offered alternate years.

406 - Conducting II-1 S.H.

Advanced techniques of conducting choral and instrumental groups.
Prerequisite: MUS 306 and instructor's permission. Offered yearly.

NURSING

Stark Hall, Room 303, (507) 457-5120

Stejskal (Chairperson), Ballard, Bautech, Blankenfeld, Bork, Gardner, P. Gaspar, T. Gaspar, Hartkopf, Hatlevig, Heath, Hovelson, Johnson, Kilkus, Kitundu, McBreen, Nicholls, Nosek, Olsen, Orth, Pilon-Kacir, Proksch, Reuland, Seppanen, S. Smith, Tucker, Welhaven, Wilke

Faculty

Susan Ballard, Associate Professor; B.S.N., University of Illinois; M.S.N., University of Minnesota-Twin Cities; Ph.D., University of Saint Thomas; 1984 -
Judith Bautech, Associate Professor; B.S., University of Wisconsin-Madison; M.N., University of Washington; Ph.D., University of Wisconsin-Madison; 1997 -
Norma Blankenfeld, Associate Professor; B.S.N., M.S., University of Minnesota; 1980 -
Cynthia Bork, Assistant Professor; B.S.N., College of St. Theresa; M.S., Winona State University; 1993 -
Karen L. Gardner, Associate Professor; B.S.N., Florida State University; M.S.N., Texas Womans University; Ph.D., Rush University; 1985 -
Phyllis Gaspar, Associate Professor; B.S., M.S., University of Nebraska; Ph.D., Case Western Reserve University; 1995 -
Timothy Gaspar, Dean, College of Nursing and Health Science; B.S., South Dakota State University; M.S.N., University of Nebraska Medical Center; Ph.D., University of Utah; 1995 -
Patricia Hartkopf, Professor; B.S.N., Winona State University; M.S.P.H., University of Minnesota; Ph.D., University of Minnesota; 1990 -
Jacqueline Hatlevig, Associate Professor; B.S.N., Winona State University; M.S.N., University of Wisconsin-Madison; 1987 -
Linda Heath, Assistant Professor; B.S. University of Wisconsin-Madison; M.S.N. University of Wisconsin-Madison, 1993 -
Judy Hovelson, Assistant Professor; B.S.N., University of Vermont; M.S.N., University of Minnesota-Twin Cities; 1984 -
Lola Johnson, Associate Professor; B.S.N., Mankato State University; M.S.N., Washington University (Missouri); 1989 -
Stephen Kilkus, Associate Professor; B.A., B.S., Michigan State University; M.S., Iowa State University of Science and Technology; M.S.N., University of Wisconsin-Eau Claire; 1987 -
Mary Ellen Kitundu, Assistant Professor; B.S.N., Gustavus Adolphus College, St. Peter (MN); M.A., University of Minnesota-Twin Cities; 1995 -
William McBreen, Professor; B.S., Mount Martyr College; M.S., University of Nebraska Medical Center; Ph.D., University of Texas; 2000 -
Daniel Nicholls, Professor; M.S.N., M.Ed., University of Texas-El Paso; Ed.D., Montana State University; 1988 -
Catherine Nosek, Assistant Professor; B.S., University of Wisconsin-Madison; M.S., Ph.D., University of Wisconsin-Madison.
Gayle P. Olsen, Associate Professor; B.S.N., College of Saint Teresa; M.S.N., University of California-San Francisco; 1980 -
Kathy S. Orth, Associate Professor; B.S.N., College of Saint Teresa; M.S.N., University of Minnesota-Twin Cities; 1983 -
Christine E. Pilon-Kacir, Professor; B.S.N., Mercy College of Detroit (MI); M.S.N., University of Michigan; Ph.D. University of Missouri-Columbia, 1994 -
Mary K. Proksch, Assistant Professor; B.S.N., Viterbo College; M.S. Winona State University; 1996 -
Mary Reuland, Assistant Professor; B.S., Northern Michigan University; M.S., Ph.D., University of Minnesota - Twin Cities; 1999 -
Linda Seppanen, Professor; B.S.N. St. Olaf College; M.S.N., The Catholic University of America; Ph.D., University of Alabama; 1990 -
Susanne Smith, Associate Professor; B.S., Goshen College; M.S.N., University of Maryland-Baltimore; 1978-1980; 1983 -
Joanne Stejskal, Professor; B.S.N., College of Saint Teresa; M.S.N., University of Wisconsin-Madison; Ed.D., University of St. Thomas; 1975 -
Sharon Tucker, Associate Professor; B.S.N., College of Saint Teresa; M.S.N., University of Wisconsin-Eau Claire; D.N.S.C., Rush University; 1997 -
Mary Welhaven, Associate Professor; B.S.N., Winona State University; M.S., University of Minnesota-Twin Cities; Ph.D., University of Minnesota-Twin Cities; 1981 -
Janet A. Wilke, Associate Professor; B.S.N., University of Wisconsin-Madison; M.S.P.H., University of Minnesota-Twin Cities; 1975 -

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 Accrediting Commission (NLNAC), 61 Broadway, New York, NY 10006 (212)363-5555. NLNAC is a resource of information regarding tuition, fees and length of program. The Nursing Program is approved by the Minnesota Board of Nursing. Graduates are eligible to write the profes-

sional nurse licensure examination and 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. Inquire about scholarships early in the academic year. Apply for scholarships one academic year in advance of the academic year you want to receive the scholarship (i.e., apply during the 2000-2001 academic year if you want a scholarship in the 2001-2002 academic year). Scholarships are provided by individual benefactors, affiliating hospitals, and professional and community organizations. A complete listing is available in the Nursing Department Office on either the Rochester or Winona campus. Students are encouraged to contact agencies (hospitals, nursing homes, American Legion, VFW, etc.) in their hometowns regarding possible nursing scholarships. Refer to the current undergraduate catalog for general information on scholarships, grants and financial aid.

GENERIC OPTION (54 S.H.)

Required courses must be taken for a letter grade.

The Generic Option is two years of sequenced upper division nursing courses for LPNs and students who are not licensed as registered nurses. Coursework can be completed on a full-time or part-time basis.

Location

The Nursing Major is offered on both the Winona and Rochester campuses. Students are assigned to a campus for their junior and senior years when they are admitted to the Nursing Major, and campus assignment determines location of clinical facilities.

A variety of community facilities are utilized for site based experiences for students in the Nursing Major. Students assigned to the Winona campus participate in clinical experiences at community Memorial Hospital in Winona and the Gundersen-Lutheran medical complex in La Crosse, Wisconsin. Students assigned to the Rochester campus participate in clinical experiences at hospitals affiliated with Mayo Medical Center and Olmstead Medical Center. Both campuses also offer a wide variety of other clinical experiences including nursing homes, public health agencies mental health agencies, school systems, occupational health settings and other agencies.

Costs

Nursing students admitted into the upper-division Nursing Major must assume responsibility for any costs incurred while meeting the following clinical agency requirements: yearly mantoux tests; diphtheria-tetanus immunity; measles, mumps and rubella immunity; polio immunity; Hepatitis B vaccination; chicken pox immunity/titer; medical/hospital insurance coverage; a physical examination (within the past 10 years); CPR certification; and professional liability insurance. Nursing students are expected to provide their own transportation to all site-based experiences. Nursing students also must assume responsibility for the costs of their name pin, uniform(s), lab coat and faculty-approved stethoscope, as well as any costs incurred to maintain their health (throat cultures, doctor visits, etc.).

Initial costs for book purchases for junior nursing students can total \$500 (approximate). Most texts are used throughout the program.

Admission to the Nursing Major

Application to the Nursing Major is a two-step process. The first step is admission to WSU. Contact the WSU Admissions Office for more information.

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 7 of 10 natural and social science prerequisite courses with a "C" or better and have a cumulative GPA of 2.75 or above by the end of WSU's fall semester of the second year may apply for admission to the Nursing Major. The student's GPA is calculated on the most recent five years of coursework; however, all grades for prerequisite courses must be completed with a "C" or better no matter when they were taken. Students must have a plan for completing all prerequisite courses, including ENG 111. ALL prerequisite courses must be completed with a grade of "C" or better before starting the Nursing Major in the fall.

The completed application must be turned in by the specified deadline. Notification of admission to the Nursing Major is made early in the spring semester. The Nursing Major begins the fall semester of the following academic year. Nursing advisors are available to assist with the application process.

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. Students must adhere to the University standards for retention and scholarship.
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.
4. Under the 1995 amendments to the Vulnerable Adults Act, individuals who provide direct contact service to patients or residents in select health facilities must undergo a background check. The studies are conducted by the licensing division of the Department of Human Services on behalf of the Department of Health. Currently no fees are charged.

"Minnesota law requires that any person who provides services that involve direct contact with patients and residents at a health care facility licensed by the Minnesota Department of Health have a background study conducted by the state. An individual who is disqualified from having direct patient contact as a result of the background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate in a clinical placement in a Minnesota licensed health care facility. Failure to participate in a clinical placement required by the academic program could result in ineligibility to qualify for a degree in this program."

Withdrawal

Withdrawal from a nursing course and/or the University must be completed according to WSU guidelines.

Professional 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 and/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 Major 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 semester.
3. Students may be dismissed from a course for breach of ethical responsibilities. See the Handbook for Undergraduate Nursing Students and the Dean of Student Affairs for information regarding University expectations and policies. A student dismissed for such a violation will not be allowed to continue in any clinical nursing course that semester, will be dropped from the Nursing Major at the end of the semester, and will be not readmitted to the major.
4. Students who once were admitted to the Nursing Major and completed at least one nursing course and currently are not enrolled in the Nursing Major have one year from the date of withdrawal/failure to file a progression plan approved by the nursing advisor or the 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 nursing advisor 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 must get the plan 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 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 new semester.

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.

Graduation Requirements

Graduation requirements include completion of WSU General Education Program Requirements as well as all Nursing Major course requirements. A total of 128 semester credits is needed to graduate from WSU; at least 64 of these semester credits must be from a four-year college. A formal application for graduation must be made no later than one semester before the expected graduation semester.

After graduation, Generic Option nursing 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 NCLEX in the state of their choice.

Graduation With 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 have an opportunity to work closely with faculty advisors and pursue personal learning goals. We feel this program stimulates scholarly interest and gives recognition to deserving students for their achievements.

To be eligible, you must:

1. have junior status in the Nursing Major
2. have applied for and be accepted into the Nursing Honors Program by the end of the spring semester of the junior year
3. complete the nursing research course by the end of the junior year
4. maintain a 3.0 GPA overall and 3.5 GPA in nursing courses

After meeting eligibility requirements, you proceed as follows:

1. You must find a Nursing faculty member willing to serve as an honors advisor and another Nursing faculty member willing to serve as a second reader for the project. These faculty comprise your Honors Committee. Advisors and readers must be full-time, tenured or tenure-track WSU faculty members unless a waiver is obtained from the Student Committee. Faculty members accept Honors students at their own discretion. It is not guaranteed that you will be able to find a faculty advisor or second reader.
2. You (with your advisor) prepare a scholarly proposal for the Honors project by the first week of fall semester of your senior year. A proposed timeline for completing the project also must be developed with the advisor.
3. You submit the Honors proposal to your Honors Committee for approval. The Honors Committee determines if your proposal meets the criteria for a Nursing Honors project.
4. You do the Honors project during the fall semester of your senior year under the direction of the faculty advisor. Specific objectives for the project are developed by you and your faculty advisor. A scholarly paper reporting or describing the results of the Honors project must be completed by the middle of spring semester of your senior year.
5. You may register for up to 6 credits (N490 Independent Study in Nursing) over the two-year period if you so choose to earn credits for working on your Honors project.

6. You are required to present your project in a seminar or meeting organized by the Honors Committee each spring. You submit two copies of your project to be placed in the Honor's Book on each campus.

Students who are admitted to the Nursing Honors Program and who successfully complete the process will, upon graduation, have their official transcripts stamped with the words, "Graduated With Honors In Nursing"; and have their graduation status (Honors in Nursing) indicated on the graduation program and mentioned during graduation ceremonies.

Finish in Four Graduation Guarantee

Students who meet the following requirements of the Finish-In-Four Graduation Guarantee are admitted to the Nursing Major:

1. All first-year students entering fall semester wishing to participate in the graduation guarantee program must complete the guarantee application form and officially declare a major within the Department of Nursing before beginning their fall semester classes;
2. All eligible students must be qualified to begin college-level science, math and English as required by the Nursing Major;
3. All eligible students must pre-register for classes each semester and have their schedules approved by their official nursing advisor.
4. All eligible students must meet any program requirements (GPA, grade, prerequisites) as stipulated in the University catalog and/or the schedule of classes and have a cumulative GPA of 3.3 at the time of admission to the Nursing Major;
5. All eligible students must successfully complete an average course load of 16 credits each semester (32 credits per year);
6. Any prerequisite courses with a grade of less than "C" or repeated voids the guarantee;
7. Any change in major, options or minor voids the guarantee.

Minnesota Nursing Students' Association (MNSA)

Membership is available at the local, state and national levels. This organization focuses on nursing student issues and problems. First-year and sophomore nursing students are welcome and encouraged to join this pre-professional organization.

Nursing faculty fully support the activities of this organization. The MNSA office is located in Stark Hall, Room 314. Names of current officers are posted on Nursing Department bulletin boards in Winona and Rochester.

B.S. MAJOR - NURSING

96 S.H. (No Minor Required)

All courses must be taken for a letter grade

PREREQUISITES/REQUIRED COURSES 37-38 S.H.

NATURAL SCIENCE 21 - 22 S.H.

Biology (14 s.h.)

- 206 Normal Nutrition (3)
- 209 Microbiology (3)
- 211 Anatomy & Physiology I (4)
- 212 Anatomy & Physiology II (4)

Chemistry (7-8 s.h.)

- * 208 (3), *209 (4) General, Organic and Biochemistry I and II

OR

- * 212, *213 Principles of Chemistry I and II (4 s.h. each)

SOCIAL SCIENCE 12 S.H.

Psychology (6 s.h.)

- * 210 General Psychology (3)
- 250 Developmental Psychology (3)

Sociology (6 s.h.)

- * 150 Human Society (3)
- * 212 The Family (3)

OTHER 4 S.H.

English (4 s.h.)

- * 111 College Reading and Writing (4)

* Courses may be used to satisfy certain General Education Requirements.

Additional Nursing Major Requirements to be completed before Graduation.

NOTE: Either one of the following statistics courses MUST be completed BEFORE enrolling in N375 Nursing Research Theory and Technology.

- * STAT 110 Fundamentals of Statistics (3)

OR

PSY 231 Statistics (3) Note: This course does not fulfill a General Education Requirement.

UPPER-DIVISION ELECTIVES

(300- and 400-level courses) (5 s.h.)

ELECTIVES (5 S.H.)

Five semester hours of upper-division electives (300 and 400 level) are required for the Nursing Major.

Elective credits can be selected from the offerings of the Nursing Department or from other upper-division 300- and 400-level offerings (of these, 2 credits must be from Nursing electives). Electives can be taken as letter grade or Pass/No Credit if the courses are offered on a P/NC basis.

NURSING ELECTIVES

- 327 Intro to Public Health (3)
- 392 Cardiac Risk Prevention (3)
- 399 Skills for Professional Success (2)
- 412 Critical Care Nursing (2-3)
- 432 Principles of OR Nursing (3)
- 480 Holistic Approaches to Healing (3)
- 490 Independent Study in Nursing (1-3)
- 492 Jamaica Studies: Health Care in an Emerging Country (3)
- 493 The Patient's Voice: Experiences of Illness (2)
- 494 Contemporary Film: Understanding the Patient's Experience (2)
- 495 Seminar (1-3)
- 496 Feminist Perspectives in Nursing (2)
- 497 Nursing Care of the Aged (3)

OTHER RECOMMENDED ELECTIVES

- PHIL 330 Biomedical Ethics (3)
- PSY 390 Abnormal Psychology (3)

GENERIC OPTION

54 S.H.

Required courses must be taken for a letter grade.

REQUIRED COURSES

- 300 Caring Skills I (2)
- 301 Caring Skills II (2)
- 320 Caring Concepts I (3)
- 321 Caring Concepts II (3)
- 330 Nursing Role Development I (3)
- 331 Nursing Role Development II (3)
- 345 Health Assessment I (3)
- 346 Health Assessment II (2)
- 360 Pharmacology (1)
- 366 Pathophysiology (3)
- 375 Nursing Research, Theory and Technology (3)

- 400 Emerging Health Care Systems (2)
- 411 Nursing of Adults and Their Families (2)
- 413 Nursing of Families Experiencing Mental Illness (2)
- 421 Nursing of Childbearing Families (2)
- 422 Nursing of Childrearing Families (2)
- 456 Adult Health Practicum (3)
- 466 Parent-Child Practicum (3)
- 471 Community Health Care (2)
- 472 Leadership/Management in Nursing (2)
- 486 Leadership/Management Public Health Practicum (3)
- 491 Capstone Experience in Role Synthesis (3)

RN OPTION

54 S.H.

Required courses must be taken for a letter grade.

The RN Option is a flexible program for registered nurses pursuing a baccalaureate degree in nursing. RN Option courses may be completed on a full-time or part-time basis. Other requirements will need to be completed for graduation.

Sixty-four (64) credits may be granted by transfer to RNs who have completed an associate degree in nursing from an NLNAC-accredited program. The remaining 64 credits include 30 nursing credits, 3 STATS credits, 5 upper division elective credits, and 26 credits from a four-year institution. A total of 128 semester credits are needed to graduate with a baccalaureate degree from WSU.

The RN Option 54 semester credit nursing major is comprised of the 30 semester hours of required nursing credits achieved at WSU and the 24 nursing credits granted by transfer. In addition, 5 credits of upper division coursework must be completed to satisfy the nursing major graduation requirements.

MNSCU STATEWIDE NURSING ARTICULATION AGREEMENT

The following terms and conditions of articulation between nursing programs are in effect at WSU:

1. The candidate must have graduated from an Associate Degree program for registered nurses that is approved by a state board of nursing and based in a regionally accredited college or university.
2. The candidate must have been awarded the Associate in Science (A.S.) Degree in Nursing with a cumulative grade point average (GPA) of 2.75 and a minimum grade of "C" in each nursing course.
3. The candidate must have been graduated from a board approved program in nursing and have a current unencumbered authorization to practice as a Registered Nurse (RN).
4. The Associate in Science (A.S.) Degree transfers to the baccalaureate institution as a whole package of nursing major and supporting courses.
5. Articulation registered nurses should not be required to complete more total credits for the degree than the generic nursing baccalaureate students.

Location

The RN Option is offered on the Rochester campus. A variety of community and county agencies and locations are used for site-based experiences.

Outreach

The Department of Nursing is focusing efforts and resources and may offer outreach courses and the RN Option program to distant sites via interactive television (ITV).

RN to MS Professional Pathway

The Nursing Department offers an accelerated pathway for nurses who are prepared in either an associate degree in nursing or diploma nursing program, have nursing experience, and whose goal is a Masters Degree in Nursing. Selected individuals who meet admission requirements and are highly motivated will substitute Masters-level credits for Baccalaureate-level credits during the RN Option. Further information can be obtained from the department secretary at the WSU-Rochester Center at (507) 285-7349 or 1-800-366-5418, EXT 7349.

Costs

Nursing students admitted into the upper-division Nursing Major RN Option must assume responsibility for any costs incurred while meeting the following clinical agency requirements: yearly mantoux tests; diphtheria-tetanus immunity; measles, mumps and rubella immunity; polio immunity; Hepatitis B vaccination; chicken pox immunity/titer; medical/hospital insurance coverage; a physical examination (within the past 10 years); CPR certification; and professional liability insurance. Nursing students are expected to provide their own transportation to all site-based experiences. Nursing students also must assume responsibility for the costs of their name pin, uniform(s), lab coat and faculty-approved stethoscope, as well as any costs incurred to maintain their health (throat cultures, doctor visits, etc.).

Admission

Step 1: Admission to Winona State University

- Send a completed Winona State University application form and the application fee to Admissions, Winona State University, P.O. Box 5838, Winona, MN 55987-5838.
- Request that official transcripts from all post-secondary schools attended be sent to the Admissions office (Winona) and to the Nursing Department (Rochester).
- Allow 4-6 weeks for processing. Call the Admissions Office to inquire if processing is delayed.
- Receive notification of admission to Winona State University.

Step 2: Completion of Required Courses

- After receiving the Official Evaluation of Credit from Admissions, arrange an appointment with a nursing advisor.
- Five semester hours are required in upper division elective credits. Two of the 5 upper division credits must be in nursing. It is highly recommended that all upper division credits be completed prior to the RN Option due to scheduling considerations.

Step 3: Admission to the Nursing Major

- Applicants to the nursing program are admitted once a year for the following academic year.
- Contact the Rochester Nursing Department in the preceding fall for application materials, deadline dates, and general information. Students need to seek academic advisement prior to applying to the RN Option program to ensure that all requirements are fulfilled.
- Select the full-time or part-time option for completing the nursing courses.

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. Students must adhere to the University standards for retention and scholarship.
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.
4. Under the 1995 amendments to the Vulnerable Adults Act, individuals who provide direct contact service to patients or residents in select health facilities must undergo a background check. The studies are conducted by the licensing division of the Department of Human Services on behalf of the Department of Health. Currently no fees are charged.

"Minnesota law requires that any person who provides services that involve direct contact with patients and residents at a health care facility licensed by the Minnesota Department of Health have a background study conducted by the state. An individual who is disqualified from having direct patient contact as a result of the background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate in a

clinical placement in a Minnesota licensed health care facility. Failure to participate in a clinical placement required by the academic program could result in ineligibility to qualify for a degree in this program."

Withdrawal

Withdrawal from a nursing course and/or the University must be completed according to WSU guidelines.

Professional 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 and/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 Major 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 semester.

3. Students may be dismissed from a course for breach of ethical responsibilities. See the Handbook for Undergraduate Nursing Students and the Dean of Student Affairs for information regarding University expectations and policies. A student dismissed for such a violation will not be allowed to continue in any clinical nursing course that semester, will be dropped from the Nursing Major at the end of the semester, and will be not readmitted to the major.

4. Students who once were admitted to the Nursing Major and completed at least one nursing course and currently are not enrolled in the Nursing Major have one year from the date of withdrawal/failure to file a progression plan approved by the nursing advisor or the 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 nursing advisor 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 must get the plan 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 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 new semester.

Graduation Requirements

Graduation requirements include completion of all Nursing Major course requirements. A total of 128 semester credits is needed to graduate from WSU; at least 64 of these semester credits must be from a four-year college. A formal application for graduation must be made no later than one semester before the expected graduation semester.

Twenty-four (24) credits of the Nursing Major (N302, N304, N306 and N308) will be granted by transfer to RNs who have completed an Associate Degree in Nursing from an 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 for graduates of Associate Degree programs which are not NLN-accredited. If all examinations are successfully completed, the 24 credits will be granted. RN Option students must meet prerequisite requirements as outlined in the "Admission to the Nursing Major." 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.

REQUIRED COURSES

- 375 Nursing Research, Theory and Technology (3)
- 415 Holistic Caring (5)
- 435 Holistic Assessment (4)
- 445 Management and Leadership (3)
- 455 Continuity of Care (4)
- 465 Nursing Roles and Health Promotion (4)
- 475 Community Health Nursing (4)
- 491 Capstone Experience in Role Synthesis (3)

Nursing Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major must be taken on a Grade Only basis.

260 - Women's Health Issues-3 S.H. (General Education Course)

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.

300 - Caring Skills I-2 S.H. (Generic)

Develops the knowledge and skills for meeting physiologic needs of clients and providing a safe environment as part of a team in professional nursing practice. Lab course. Prerequisite: admission to the major. Grade only.

301 - Caring Skills II-2 S.H. (Generic)

Develops the knowledge and skills for integrating selected therapeutic nursing interventions into nursing care of individuals, families and communities in professional nursing practice. Lab course. Prerequisite: N300. Grade only.

*****302 - NLN Mobility Profile II: Care of the Adult Client-6 S.H. (RN Option)**

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 also are included in this exam which assess nursing skills in meeting physiologic and psychosocial needs of clients with stable conditions. P/NC only.

*****304 - NLN Mobility Profile II: Care of Client During Childbearing-6 S.H. (RN Option)**

Focuses on nursing care during the antepartal, intrapartal and neonatal periods. Emphasis is on the normal, although some common, complications. P/NC only.

*****306 - NLN Mobility Profile II: Care of the Child-6 S.H. (RN Option)**

Is concerned with nursing care of children of all ages at various stages of health and illness. P/NC only.

*****308 - NLN Mobility Profile II: Care of the Client with a Mental Disorder-6 S.H. (RN Option)**

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. P/NC only. (NOTE: *** indicates for diploma and ADN graduate of non-NLN accredited schools)

320 - Caring Concepts I-3 S.H. (Generic)

Introduces the profession of nursing in the context of the changing health care delivery system. Caring concepts, ethical decision-making, therapeutic use of self and professional roles of caregiver, scholar, advocate and teacher emphasized. Prerequisite: admission to the major. Grade only.

321 - Caring Concepts II-3 S.H. (Generic)

Focuses on health promotion for self, individuals and groups, and building on professional role development as case manager and change agent. Prerequisite: N320. Grade only.

327 - Introduction to Public Health-3 S.H. (Elective)

This course is designed to introduce concepts of public health appropriate for students in health care fields. These concepts will be applied to present health care delivery systems, health and disease of population groups, and community planning. The influence of political, economic and social aspects are considered. P/NC option.

330 - Nursing Role Development I-3 S.H. (Generic)
Beginning integration of ethical decision-making, communication and therapeutic nursing interventions into the caregiver, advocate, scholar and teacher roles with clients in a variety of settings. Ninety hours practicum for semester. Prerequisite: admission to the major. Grade only.

331 - Nursing Role Development II-3 S.H. (Generic)
Integrates professional nursing roles of provider of care, advocate, teacher, case manager, change agent and researcher in nursing care of individuals, families and a community. Ninety hours practicum for semester. Prerequisite: N330. Grade only.

345 - Health Assessment I-3 S.H. (Generic)
Develops the knowledge and skills necessary for holistic assessment of the child and adult, includes physical assessment skills and determination of nursing diagnoses. Lecture and lab course. Prerequisite: admission to the major or instructor's permission. Grade only.

346 - Health Assessment II-2 S.H. (Generic)
Develops the knowledge and skills necessary for assessment of the family and the community including determination of nursing diagnoses for specific groups. Lecture and lab course. Prerequisite: completion of N345 or instructor's permission. Grade only.

360 - Pharmacology-1 S.H. (Generic)
An introduction to general principles of drug therapies in self-care and in nursing practice. Prerequisite: chemistry course or instructor's permission. Grade only.

366 - Pathophysiology-3 S.H. (Generic)
Covers the human pathologic processes and common treatment modalities for frequently occurring health problems. Nursing Prerequisite: completion of Anatomy & Physiology sequence or instructor's permission. HHP Prerequisite: HHP 340 Physiology of Exercise and completion of A & P sequence. Grade only.

375 - Nursing Research, Theory and Technology-3 S.H. (Generic & RN Option)
Develops the ability to analyze, critique and interpret research findings and data based on nursing theory and practice needs. Includes use of selected software and technological modalities. Prerequisite: Statistics course or instructor's permission. Grade only.

392 - Cardiac Risk Prevention-3 S.H. (Elective)
Content will be added on new technology in diagnosing and treating cardiac conditions. 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 also will be discussed. P/NC option.

399 - Skills for Professional Success-2 S.H. (Elective)
This course will help the student learn what he/she needs to know to live a successful and harmonious life as a person working in a professional career. The coursework will focus in three areas critical to career success: 1) How to develop the self-confidence and self-esteem essential for personal and professional well-being; 2) How to relate with others in a professional and confident manner to make work more vital, effective, and satisfying every day; 3) How to determine one's desired professional career path, make career decisions comfortably and efficiently, and achieve professional goals. P/NC option.

400 - Emerging Health Care Systems-2 S.H. (Generic)
Explores American and global nursing care within the health care delivery systems including issues and trends. Prerequisite: Senior standing in major or instructor's permission. Grade only.

402 - Clinical Pharmacology-3 S.H. (Elective, RN to MS course)
This course includes principles of pharmacokinetics and pharmacodynamics as a foundation for the use of medications in the clinical management of diseases. Major classes of drugs will be discussed in terms of actions; therapeutic and other effects; adverse, allergic and idiosyncratic reactions; indications and contraindications. The importance of sound diagnostic reasoning in the selection of pharmacological interventions with attention to safety, cost, simplicity,

acceptability and efficacy will be stressed. The responsibilities related to prescribing medications will be emphasized. Pre requisite: Admission to the graduate program in nursing or consent of instructor. Grade only.

404 - Advanced Pathophysiology-3 S.H. (Elective, RN to MS Course)
Advanced physiology and pathophysiology at the cellular, organic and systemic level, will be explored as a basis for clinical assessment and management by the advanced practice nurses. Integration of function among organ systems will be emphasized. The effect of psychosocial variables on physiologic function will be explored. Grade only.

406 - Psychosocial Interventions in Family Care-2 S.H. (Elective, RN to MS Course)
This course explores the role of the advanced practice nurse in addressing the psychosocial needs of the client and family. Focus will be on the development of counseling skills for advanced psychosocial assessment and on providing culturally sensitive guidance in caring for the client and family during health crisis, and acute and chronic illness. Grade only. Pre-requisite: Admission to the graduate program in nursing or consent of instructor.

408 - Advanced Role Seminar-2 S.H. (Elective, RN to MS Course)
This course will provide a forum for the explorations of advanced practice role behaviors including collaboration and leadership. Selected theories and frameworks relevant to the various roles will be evaluated. Ethics and diversity issues in nursing and health care will be discussed. Grade only. Pre-requisite: Admission to the graduate program in nursing or consent of instructor.

410 - Theoretical Foundations and Research for Advanced Nursing Practice-4 S.H. (Elective, RN to MS Course)
The goal of this course is to provide students with the opportunity to critically analyze existing nursing theories and articulate a personal philosophy of nursing. Students will do an in depth analysis of a concept. The student will analyze methods and techniques of research and interpret their usefulness for application in clinical practice. Theory and practice will be used to define nursing problems and develop a research proposal. Grade only. Admission to graduate program in nursing or consent of instructor. Co-or prerequisite: STAT 501.

411 - Nursing of Adults and Their Families-2 S.H. (Generic)
Studies the theoretical basis of nursing care for adult clients and their families in well-being and illness. Prerequisite: N330. Grade only.

412 - Critical Care Nursing-2-3 S.H. (Elective)
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. The 2-credit option has theory only. The 3-credit option has theory and a clinical laboratory experience. Pre-requisite: N411, N456, or instructor's permission. P/NC option.

413 - Nursing of Families Experiencing Mental Illness-2 S.H. (Generic)
Studies the theoretical basis of nursing care of individuals, families and groups with emotional concerns or mental illnesses and explores nursing in the psychiatric/mental health setting. Prerequisite: N330. Grade only.

414 - Health Care Policy and Finance-3 S.H. (Elective, RN to MS Course)
This course provides a base for nurse leaders and advanced practice nurses to enter and effectively shape health care policy in the workplace, organizations, community, and government at the state and federal level. Students will develop an understanding of health care financing in the delivery of health care. Grade only. Pre-requisite: Admission to the graduate program in nursing or consent of instructor.

415 - Holistic Caring - 5 S.H. (RN Option)

This course introduces the WSU nursing curriculum and organizing framework to the RN student. Holistic caring is related to critical thinking, teaching learning, role development and nursing practice. Grade only.

421 - Nursing of Childbearing Families-2 S.H. (Generic)

Studies the theoretical basis of nursing care dealing with sexuality, reproductive health promotion and prenatal health promotion. Prerequisite: N330. Grade only.

422 - Nursing of Child-Rearing Families-2 S.H. (Generic)

Studies the theoretical basis of nursing care for families with children. Prerequisite: N330. Grade only.

432 - Principles of OR Nursing-3 S.H. (Elective)

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. P/NC option.

435 - Holistic Assessment-4 S.H. (RN Option)

This course teaches the student to assess the client and family in a holistic manner. Traditional physical history and assessment of the individual is expanded to include multiple variables. Prerequisite: admission to the major or co-requisites of N415 and N465. Grade only.

445 - Management and Leadership-3 S.H. (RN Option)

This course explores the management and leadership roles of the professional nurse, analyzing current nursing practices as well as applying the change process to a nursing situation. Grade only.

455 - Continuity of Care-4 S.H. (RN Option)

This course explores selected professional nursing situations or populations involving continuity of care issues: complex acute/chronic care issues; loss; the elderly; and other cultures. Teaching-learning theory and skills are applied to the adult learner. Grade only.

456 - Adult Health Practicum-3 S.H. (Generic)

Focuses on the nursing roles in restoring, maintaining and promoting the health of individual adults and their families in a variety of situations of well being, mental and physical illnesses, and settings. Ninety hours practicum for semester including seminar.

Prerequisites or concurrent: N411 and N413. Grade only.

465 - Nursing Roles and Health Promotion-4 S.H. (RN Option)

Focuses on the nursing roles of provider of care, advocate, teacher, case manager, change agent and researcher of individuals and families in a variety of situations. Students will apply communication skills in various interpersonal situations. Sixty hours of site-based experiences. Grade only.

466 - Parent-Child Health Practicum-3 S.H. (Generic)

Focuses on the nursing roles in maintaining and promoting the health of childbearing and childbearing families and others in relation to reproductive health in a variety of situations and settings. Ninety hours practicum for semester including seminar. Prerequisite or concurrent: N421, N422. Grade only.

471 - Community Health Care -2 S.H. (Generic)

Explores the historical roots of public health care and addresses public health issues for vulnerable populations and ways nursing deals with chronic needs. Prerequisite: N330. Grade only.

472 - Leadership/Management in Nursing-2 S.H. (Generic)

Explores leadership and management theories, attributes and behaviors within the culture of nursing. Prerequisite: N331. Grade only.

475 - Community Health Nursing-4 S.H. (RN Option)

Focuses on the nursing roles and functions of the community health nurse in maintaining and restoring health of individuals, families and groups in a variety of situations and settings. Grade only.

480 - Holistic Approaches to Health-3 S.H. (Elective)

This course examines the relationship of the body, mind and spirit within the field of health, healing and nursing. Holism, the view that an integrated whole has a reality independent of and greater than the sum of its parts, forms the framework for this inquiry. The concepts of healing, psychophysiology, the transpersonal, the transpersonal self, body-mind-spirit and the nurse as healer will be discussed. P/NC option.

486 - Leadership/Management Public Health Practicum-3 S.H. (Generic)

Focuses on the nursing roles in caring for groups of clients with groups of other health care providers in a variety of situations and settings. Ninety hours practicum for semester including seminar. Prerequisites or concurrents: N471 and N472. Grade only.

490 - Independent Study in Nursing-1-3 S.H. (Elective)

Offers an opportunity for nursing students to do independent study or research in nursing in an area of special interest. Prerequisite: instructor's permission. Written objectives and evaluation required. P/NC option.

491 - Capstone Experience in Role Synthesis-3 S.H. (Generic & RN Option)

Intense site-based experiences of student's choice; designed to encapsulate the essence of baccalaureate-level professional role development. Ninety hours practicum for semester including seminar. Prerequisite: last term of senior year or instructor's permission. Grade only.

492 - Jamaica Studies: Health Care in An Emerging Country-3 S.H. (Elective)

This international course will focus on the health care delivery system in Jamaica and the factors which influence the effectiveness of the system. The specific focus will be on the nursing aspects of the system. Students will be exposed to both public and private aspects of nursing. Expert Jamaicans will present on a variety of topics which influence health care including economics, politics, culture and society.

493-The Patient's Voice: Experiences of Illness-2 S.H. (Elective)

This course is designed to introduce students to contemporary autobiographical accounts of illness, both physical and psychiatric. The content can be applied to the practice of nursing. P/NC option.

494-Contemporary Film: Understanding the Patient's Experience-2 S.H. (Elective)

Utilizing contemporary film, this course explores the experiences of patients experiencing both physiological and psychiatric illness, and assists students to utilize this information in developing a caring nursing practice. P/NC option.

495 - Seminar-1-3 S.H. (Elective)

Subject matter of current interest arranged by the Department. Course may be repeated when offered with different content and title. P/NC option.

496 - Feminist Perspectives in Nursing-2 S.H. (Elective)

This seminar explores the relationship of the feminist movement, feminist theory and gender issues for nursing history and practice. P/NC option.

497 - Nursing Care of the Aged-3 S.H. (Elective)

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 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. P/NC option.

PARALEGAL

Minne Hall, Room 212, (507) 457-5400
T. Paino (Program Director)

Faculty

Troy Paino, Assistant Professor, History; B.A., Evangel College; J.D., Indiana University School of Law; M.A., Ph.D., Michigan State University; 1997 -

The purpose of the Paralegal Program is to enable students to develop both intellectual and professional skills in the law. The program is designed to meet the needs of students wishing to enter into a career that demands knowledge and experience with legal systems and institutions. This includes careers working for law firms, government agencies, insurance companies, banking institutions, and more. It also serves as an excellent preparation for law school.

The program is an interdisciplinary program within the College of Liberal Arts that develops skills in legal research, writing and investigation alongside a deeper understanding of the substance, politics and history of the law.

A high school diploma and admission to WSU are required for admission to the program. It is recommended those candidates for admission be in the upper half of the class or have a score of at least 20 on the ACT. Students wishing to enter the program must seek advising from the Director of the Paralegal Program.

The American Bar Association approves the WSU Paralegal Program.

Paralegal Phases

There are three phases to the Paralegal Program. They are:

Phase I - Interdisciplinary Foundations

These courses address topics related to the U.S. legal system in a variety of academic disciplines ranging from history and political science to business and accounting.

Phase II - Legal Specialty Courses

These courses concentrate on specific aspects of the legal profession. Legal specialty courses are offered in sequence and typically begin in the fall of the junior year. History 370: Legal Research and Writing I must be taken as the first course in the sequence.

Phase III - Option A or Option B

Students choose either Option A or B to complete the requirements of the Paralegal Program. Option A requires an additional 35 S.H. in a variety of law-related courses from various disciplines. Option B requires a student in addition to the first two phases of the program to successfully complete a minor of her or his choice.

Additional Course and GPA Requirements

Students are required to have substantially completed their General Education Requirements and Phase II requirements before they enroll in Legal Research. They also must have the academic advisor's approval.

Except for the Paralegal Internship and Paralegal Institute, no classes taken on a P/NC basis can be used to satisfy any specific course requirements of the Paralegal Program or coursework in the options. Except for Legal Research, transfer students cannot substitute a 100- or 200-level legal specialty course taken at another school for a similar course at a 300 or 400 level at WSU. All students must provide the Paralegal Program Director with a copy of their transcripts with recorded grade point averages before enrolling in History 371: Legal Research and Writing II.

Coursework below a grade of "C" in legal specialty courses does not count toward completion of the Paralegal Major.

B.S. MAJOR - PARALEGAL

128 S.H.

CORE REQUIREMENTS

Option A (89 S.H.)

Option B (54 S.H. plus Minor)

I. INTERDISCIPLINARY FOUNDATIONS (27 S.H.)

Communication Studies (3 s.h.)

- 261 Public Speaking (3) OR
- 389 Persuasive Communication (3)

English/Writing (3 s.h.)

- 210 Advanced Composition (3) OR
- 439 Technical Writing (3)

History (12 s.h.)

- * 150 U.S. History to 1865 (3)
- 151 U.S. History Since 1865 (3)
- ** 365 American Legal History (3) OR
- ** 488 American Constitutional History (3)

One of the following: (3 s.h.)

- 220 African American History (3)
- 235 History of the American Indian (3)
- 315 Women in U.S. History (3)
- 350 The History of Attitudes Toward Death (3)
- 355 European Intellectual and Cultural History (3)
- 461 Latin American Social Revolution (3)
- 485 Contemporary America 1945-Present (3)
- 486 American Intellectual and Cultural History (3)

Political Science (9 s.h.)

- * 120 Intro to American Politics (3)
- 320 Constitutional Law (3)
- 420 Administrative Law (3)

II. LEGAL SPECIALTY SEQUENCE (27 S.H.)

History

- 370 Legal Research & Writing I (2)
- 371 Substantive Law & Ethics I (2)
- 372 Legal Research & Writing II (2)
- 373 Adversary Systems - Civil (2)
- 374 Evidentiary Rules (2)
- 375 Substantive Law & Ethics II (3)
- 376 Adversary Systems - Criminal (2)
- 380 Paralegal Internship (12)

III. OPTIONS

OPTION A: 35 S.H.

Business Administration

- 210 Business Law (3)

History

- 377 Practical Legal Investigation Techniques (3)

Physics

- 310 Science and Technology in Litigation (4)

Sociology

- * 150 Human Society (3)
- 216 Social Problems (3)
- 376 Intro to Social Research (3)

Approved Electives (16) Courses approved by Paralegal Director and Academic Advisor

* May be used to satisfy part of the general education requirements. Although there are no other specific general education requirements, students should consider what area of paralegal work they want to pursue when choosing General Education courses. For example, Biology 117 Human Biology is recommended for those interested in personal injury law.

** A student may also choose to take both 365 American Legal History and 488 Constitutional History to satisfy this requirement

OPTION B: MINOR REQUIRED.

Paralegal Sequence

Course Descriptions

All Paralegal History courses must be taken on a Grade Only basis except Internship and Paralegal Institute.

370 - Legal Research and Writing I-2 S.H.

Quarter Course: 370.

The student will become acquainted with commonly used terminology, the need for precision in meaning, and how courts interpret documents; and techniques of legal research, the process of judicial review, the extent of legal reporting, and methods of researching court decisions. Students will draft legal briefs and legal memoranda. Prerequisites: admission to the Paralegal Major and advanced sophomore standing. Grade only. Offered yearly.

371 - Substantive Law and Ethics I-2 S.H.

Quarter Course: 371.

Students will learn the basic rules of contract law, torts, and legal ethics, and will be expected to practice their skills in legal research and writing. Prerequisite: HIST 370. Grade only. Offered yearly.

372 - Legal Research and Writing II-2 S.H.

Quarter Course: 372.

The students will expand use of research and writing techniques gained in Legal Research and Writing I by drafting deeds, leases, negotiable instruments, business agreements, corporate minutes and by-laws, wills and researching issues that are relevant to these topics. Students will continue to draft legal briefs and memoranda reflecting their research findings. Prerequisite: HIST 371. Grade only. Offered yearly.

373 - Adversary System: Civil Procedure-2 S.H.

Quarter Course: 373.

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 in the search for justice. Prerequisite: HIST 372. Grade only. Offered yearly.

374 - Evidentiary Rules-2 S.H.

Quarter Course: 374.

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. Prerequisite: HIST 373. Grade only. Offered yearly.

375 - Substantive Law and Ethics II-3 S.H.

Quarter Course: 375.

Students will study the basic elements of probate law, bankruptcy, and extensive coverage of family law (divorce, separation, and paternity), including the study of motion practice and the Minnesota Rules of Family Court Procedure, pre-trial discovery and conflict resolution techniques as well as ethical issues associated with each. Prerequisite: HIST 374. Grade only. Offered yearly.

376 - Adversary System: Criminal Procedure-2 S.H.

Quarter Course: 376.

Supplements the course on the Adversary System - Civil and covers criminal pleadings, the grand jury system, criminal pretrial discovery, jury instructions, post-trial sentencing, requirements of a fair hearing and constitutional legal defenses. Prerequisite: HIST 374. Grade only. Offered yearly.

377 - Practical Legal Investigation Techniques-3 S.H.

Quarter Course: 377.

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 also will become acquainted with the technique of working with witnesses. Prerequisites: admission to the Paralegal Major, HIST 365, HIST 370 and HIST 371. Grade only. Offered yearly.

380 - Paralegal Internship-12 S.H.

Quarter Course: 380.

Field placement in a selected organization for the purpose of experience and training as a professional paralegal. Prerequisites: HIST 370, HIST 371, HIST 372, HIST 373, HIST 374, HIST 375, HIST 376 and completion of portfolio. P/NC only.

381 - Paralegal Topics and Issues - 3 S.H.

This course is an approved elective for Paralegal majors taken in conjunction with the program-required internship. In addition to selected readings on some aspect of law in contemporary American society, students will engage in a weekly discussion via e-mail with the instructor and fellow students on topics relating to the readings and their internship experience. Students will be evaluated both by the quality of their contribution to these discussions and a final paper that grows out of the readings, internship and e-mail discussions.

383 - Paralegal Institute-1-3 S.H.

Quarter Course: 380.

The Paralegal Institute will cover various specialized topics which directly relate to areas of the paralegal profession. The specialized institutes will be offered for 1-3 credits and may be repeated to a maximum of 3 credits toward the WSU Paralegal degree. P/NC only.

PHILOSOPHY

Minne Hall, Room 329, (507) 457-5475
Possin (chair), Scheid, Slowik

Faculty

Kevin Possin, Professor; B.A., Southwest State University; Ph.D., University of Wisconsin-Madison; 1990 -
Don E. Scheid, Professor; B.A., Colorado College; M.A., J.D., University of Utah; Ph.D., New York University; 1986 -
Edward Slowik, Assistant Professor; B.A., University of Illinois at Chicago; Ph.D., Ohio State University; 1998 -

The unexamined life is not worth living - Socrates

He who knows only his own side of the case knows little of that - Mill

Philosophy is the examination of ideas and the evaluation of first principles. In addition to studying its own traditional areas - for example: ethics, logic, metaphysics and epistemology - philosophy investigates other disciplines by critically reviewing their foundations and methods.

Philosophy helps us free ourselves from dogmatic or unreflective habits of mind. It instills habits of intellectual integrity, impartiality and rationality. Philosophy enlarges our conception of what is possible and enriches our intellectual imagination. Accordingly, philosophy is an essential ingredient of any sound education.

Besides providing individual courses, the Department offers a well-rounded Philosophy Minor. The Minor provides an introduction to ethics, logic and the history of philosophy. It also helps students develop crucial 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 philosophical content and the cultivation of philosophical thinking.

Note that most of the Philosophy courses also are general education courses, so you can simultaneously nearly complete the Minor while working on the general education requirements. The electives in the minor enable you to tailor your program to your own interests and major.

Pass/No Credit Courses

All courses for the Minor must be taken for a grade.

B.A. MINOR - PHILOSOPHY

18 S.H.

REQUIRED COURSES (12 S.H.)

One of the following courses in logic:

- * 110 Critical Thinking (3)
- * 210 Inductive Reasoning (3)
- * 250 Symbolic Logic (3)

One of the following courses in moral philosophy:

- * 230 Moral Theory (3)
- 330 Biomedical Ethics (3)
- 331 Business Ethics (3)
- 332 Philosophy of Law (3)
- 401 Independent Readings in Philosophy, for appropriate readings (3)
- 430 Topics in Social and Political Philosophy (3)

One of the following courses in the early history of philosophy:

- * 201 Classical Philosophy (3)
- * 202 Aristotle to Medieval Philosophy (3)
- 401 Independent Readings in Philosophy, for appropriate readings (3)
- 460 Great Philosophers (3)

One of the following courses in the later history of philosophy:

- 301 Early Modern Philosophy (3)
- 302 Contemporary Philosophy (3)
- 401 Independent Readings in Philosophy, for appropriate readings (3)
- 460 Great Philosophers (3)

ELECTIVES (6 S.H.)

Any two philosophy courses not used to satisfy the preceding requirements.

- * Course may be used to satisfy certain General Education requirements.

Philosophy Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the Minor must be taken on a Grade Only basis. The P/NC option is available to non-Minors unless otherwise noted.

110 - Critical Thinking-3 S.H.

This computer-assisted, self-mastery course teaches you 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 and exams are done in the Critical Thinking Lab. Offered each year.

120 - Introductory Philosophy-3 S.H.

An introduction to major areas in philosophy, considering some fundamental problems and concepts. Typical issues 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. Traditional and intellectually chic theories on these or other topics are critically reviewed. Offered each year.

130 - Moral Problems-3 S.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 each year.

201 - Classical Philosophy-3 S.H.

A study of the major philosophical ideas of the classical world, con-

centrating on ancient Greece: nature of the universe, knowledge, politics and morals in the Presocratics, Socrates, and Plato. Offered each year.

202 - Aristotle to Medieval Philosophy-3 S.H.

A study of Aristotle's most important views on reality, knowledge and morals, highlighting his role as founder of logic and the scientific point of view. An investigation of how philosophers elaborated on and departed from Aristotle's theories, both in later antiquity and the Middle Ages. Offered each year.

210 - Inductive Reasoning-3 S.H.

Introduction to inductive reasoning and how to avoid being tricked by 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 fundamental concepts of probability, sampling, causation and correlation. Offered each year.

220 - Philosophy of Democracy-3 S.H.

An introductory course in political philosophy, the course investigates various issues concerning liberal democracy. Topics may 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.

230 - Moral Theory-3 S.H.

A study of major ethical theories and problems in ethical theory; for instance, Kantianism, utilitarianism, ethical relativism, concepts of justice, human rights, moral responsibility and free will. Offered each year.

240 - Philosophy of Science-3 S.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.

250 - Symbolic Logic-3 S.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 as appropriate.

260 - Problems in Philosophy-3 S.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.

301 - Early Modern Philosophy-3 S.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; the empiricism of such philosophers as Locke, Berkeley and Hume; and the constructivism of Kant. Prerequisite: one philosophy course or instructor's permission. Offered each year.

302 - Contemporary Philosophy-3 S.H.

A study of major figures and issues from the 19th and 20th centuries. Philosophers may include Mill, Marx, and Wittgenstein. Issues may include the nature of knowledge and justification, and the possibility of conceptual and ethical relativism. Prerequisite: one philosophy course or instructor's permission. Offered each year.

330 - Biomedical Ethics-3 S.H.

Ethical issues in health care; for example, 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.

331 - Business Ethics-3 S.H.

Ethical issues in business; for instance, 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 as appropriate.

332 - Philosophy of Law-3 S.H.

Consideration of the philosophical foundations 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.

335 - Constitutional Philosophy-3 S.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 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.

401 - Independent Readings in Philosophy-1-3 S.H.

An individually planned program of readings. May be repeated to a maximum of 9 semester hours. Prerequisites: one philosophy course and instructor's permission. Offered by arrangement.

430 - Topics in Social and Political Philosophy-1-3 S.H.

A variable-content course considering issues in social and political philosophy. May be repeated as topics change. Offered as appropriate.

460 - Great Philosophers-3 S.H.

An intensive study of a single philosopher. May be repeated for different philosophers. Prerequisites: one philosophy course and instructor's permission. Offered as appropriate.

PHYSICAL EDUCATION AND RECREATION

Memorial Hall, Room 122, (507) 457-5200

Olson (Chairperson), Juaire, Leaf, Matter, Mullen, Murray, Sawyer, Sheridan, Smith, Wistrill

Faculty

Stephen Juaire, Professor; B.S., M.S., Winona State University; Ph.D., Florida State University; 1975 -

Michael Leaf, Assistant Professor, Men's Basketball Head Coach; B.A., St. Mary's College of Minnesota; B.S., M.A., Winona State University; 1987 -

Christa Matter, Instructor, Women's Track Coach, Assistant Women's Volleyball Coach; B.S., Luther College; M.S., Indiana University; 1995 -

Sue Ann Mullen, Professor; B.S., M.S., Winona State University; 1969 -

Rob Murray, Gymnastics and Cheer Squad Coach; 1995 -

Lorene Olson, Professor; B.S., M.S., University of Wisconsin-La Crosse; Ph.D., University of New Mexico; 1989 -

Tom Sawyer, Assistant Professor, Football Coach; B.S., M.S., Winona State University; 1996 -

Terese Sheridan, Assistant Professor, Women's Basketball Coach; B.S., University of Wisconsin-La Crosse; M.A., Ohio State University; 1992 -

Myron Smith, Jr., Assistant Professor; B.A., Concordia College (Minnesota); M.S., Moorhead State University; Ed.D., University of Northern Colorado; 1990 -

Don Wistrill, Assistant Professor; B.S., M.S., Winona State University; 1990 -

The programs in Physical Education and Recreation provide students with discipline-specific knowledge, skills, practice and professional experiences via classroom instruction, laboratory experimentation, practicum field experiences and student teaching or internship capstone experiences necessary for professional careers or graduate studies. The Department emphasizes healthy benefits of active participation through the development of physical, social, emotional, recreational, clinical and culturally diverse skills.

Degrees, options and the concentration available within the PER department are:

- B.S. Major - Recreation and Leisure Studies Option
- B.S. Major - Therapeutic Recreation Option
- B.S. Major - Physical Education (Teaching)
- B.A. Minor - Dance (THAD/PER Co-op)
- Coaching Concentration
- Developmental/Adapted Physical Education Licensure

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 Credit. Courses offered for Pass/No Credit Only or Grade Only are so designated. All courses in the major, minor, options, etc. must be taken on a Grade Only basis except Internships.

B.S. MAJOR - RECREATION AND LEISURE STUDIES

64-65 S.H. (No Minor Required)

Students in Recreation and Leisure Studies, and students in Therapeutic Recreation must maintain a 2.50 GPA. A minimum overall GPA of 2.5 or better is required at the time of internship application as well as at the conclusion of the semester preceding one's internship.

REQUIRED COURSES (58-59 S.H.)

PER (49 s.h.)

- 203 Recreation Programming (3)
- 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 & Administration of Recreation (3)
- 333 Wilderness Outfitting & Trip Planning (3)
- 344 Wilderness First Aid (3)

- 350 Legal & Financial Aspects of Recreation (3)
- 398 Practicum in Recreation/Therapeutic Recreation (3)
- 399 Internship in Recreation and Leisure Studies (10)
- 414 Recreational Leadership (3)
- 421 Outdoor Education (3)
- 426 Recreation Facilities & Area Design (3)

Biology/Geography (3-4 s.h.)

- * BIO 104 Conservation of the Environment (3) OR
- BIO 203 Natural History (4) OR
- GEOG 270 Introduction to the Geography of Tourism (3)

Theatre and Dance/Music (2 s.h.)

- * THAD 141 Oral Interpretation (2) OR
- THAD 239 Creative Dramatics for Children (2) OR
- MUS 324 Recreational Music (2)

Physical Education/Recreation (4 s.h. credits required)

- Any 100 level PE activity course or 417 (1-3 s.h. clinics)

ELECTIVES (6 S.H.)

Courses from the list below that are designated as General Education courses may count toward both General Education Requirements and the major requirements.

Art

- * 114 2-D Design (3)
- * 115 3-D Design (3)
- * 118 Drawing I (3)
- 120 Introduction to Ceramics (3)

Biology

- * 104 Conservation of the Environment (3)
- 203 Natural History (4)

Geosciences

- 100 Minnesota Rocks & Waters (3)
- 105 Astronomy (3 or 4)
- 110 Oceanography (3 or 4)

Mass Communication

- 110 Visual Communication (3)
- 120 Electronic Media (2)
- 240 Public Relations (3)
- 260 Advertising (3)

Music

- 110 Introduction to Jazz (3)
- 116 Music of the Native American (3)
- 324 Recreational Music (2)

Physical Education and Recreation

- 417 Physical Education/Recreation/Dance Clinic (1-3)

Political Science

- * 120 Introduction to American Politics (3)
- 221 State and Local Government (3)
- 228 Public Service (3)

Psychology

- * 210 General Psychology (3)
- 250 Developmental Psychology (3)
- 305 Theories of Personality (3)
- 325 Social Psychology (3)
- 365 Consumer Psychology (3)

Sociology

- * 150 Human Society (3)
- * 205 Social Interaction (3)
- * 212 The Family (3)
- * 216 Social Problems (3)

Theatre & Dance

- * 111 Introduction to Theatre (3)
- * 141 Oral Interpretation (3)
- 201 Play Production (3)
- 239 Creative Dramatics for Children (2)

- * Course may be used to satisfy certain General Education requirement

B.S. MAJOR - THERAPEUTIC RECREATION OPTION

64 S.H. (No Minor Required)

Students in Recreation and Leisure Studies and students in Therapeutic Recreation must maintain a 2.50 GPA. A minimum overall GPA of 2.5 or better is required at the time of internship application as well as at the conclusion of the semester preceding one's internship.

REQUIRED COURSES (56 S.H.)

PER (46 S.H.)

- 229 Foundations of Recreation and Leisure Studies (3)
- 239 Outdoor Pursuits (3)
- 245 Therapeutic Recreation & Services (3)
- 302 Tourism/Eco-Tourism (3)
- 326 Organization & Administration of Recreation (3)
- 332 Leisure & Aging in Therapeutic Recreation (3)
- 342 Intervention Techniques in Therapeutic Recreation (3)
- 350 Legal & Financial Aspects of Recreation (3)
- 399 Internship in Therapeutic Recreation (10)
- 414 Recreational Leadership (3)
- 426 Recreation Facilities & Area Design (3)
- 468 Programming in Therapeutic Recreation (3)
- 475 Trends & Issues in Therapeutic Recreation (3)

Biology (4 s.h.)

- * 211 Anatomy & Physiology I (4)

Psychology (6 s.h.)

- 250 Developmental Psychology (3)
- 420 Abnormal Psychology (3)

ADDITIONAL REQUIREMENTS (6 S.H.)

A minimum of 6 s.h. from two of the five disciplines listed below (Psychology, Sociology, Counselor Education, HHP):

NOTE: As one area, students must take Psychology 210 unless using for a general education requirement. It is a prerequisite for Psychology 250 and 420. Courses listed below may NOT be counted for both major and general education.

Counselor Education

- 220 Emotions & Behavior (3)

HHP

- 340 Physiology of Exercise (4)

HHP

- 434 Developmental/Adapted PE (3)
- 435 Assessment in Adapted PE (4)

Psychology

- 210 General Psychology
- 303 Brain & Behavior (3)
- 305 Theories of Personality (3)
- 325 Social Psychology

Sociology

- 150 Human Sociology (3)
- 205 Social Interaction (3)
- 212 The Family (3)
- 216 Social Problems (3)

Additional Requirements:

A minimum of 2 additional semester hours (total) from one or two of the following areas:

Biology

- 171 Medical Terminology I (1)
- 172 Medical Terminology II (1) OR

PER

PER 117 - Physical Education/Recreation/Dance Clinic (1-3 credit workshops) OR

Music

- MUS 324 Recreational Music (2)

ELECTIVES

Therapeutic Recreation majors are strongly encouraged to take additional biology, sociology, psychology and health promotion sorts of courses to fulfill their general education requirements. Through such courses Therapeutic Recreation majors should gain additional exposure to content areas included in their National Council for Therapeutic Recreation Certification (NCTRC) exam.

* Course may be used to satisfy certain General Education requirement

B.S. MAJOR - PHYSICAL EDUCATION (Teaching)

46 S.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 the Professional Education Sequence in the Education Department's section of this catalog. Students majoring in Physical Education must have both a 2.75 overall GPA and a 2.5 GPA in the major to be admitted into the Professional Education Sequence and for degree issuance.

Dual majors, minors, adapted physical education licensure and a coaching concentration are recommended to improve marketability.

REQUIRED PHYSICAL EDUCATION

THEORY COURSES (17 S.H.)

- 129 Perspectives of Physical Education (1)
- 200 Teaching Elementary Physical Education (3)
- 201 Teaching Dance (2)
- 300 Motor Learning (2)
- 317 Curriculum & Methods of Physical Education (3)
- 337 Developmental/Adapted Physical Education (3)
- 402 Organization & Administration of Physical Education (3)

ACTIVITY CORES (12 S.H.)

- 130 Badminton, Golf, Tennis, Bowling (3)
- 131 Track & Field, Softball, Conditioning, Weight Training (3)
- 132 Tumbling, Rhythmic & Recreational Activities (3)
- 133 Flag Football, Volleyball, Basketball, Soccer (3)

ACTIVITY COURSE REQUIRED (1 S.H.)

- 123 Swimming & Water Safety (1) OR
- 124 Water Safety Instructor (1)

Biology (8 s.h.)

- * 211 Anatomy & Physiology I (4)
- * 212 Anatomy & Physiology II (4)

Health and Human Performance (8 s.h.)

- 340 Physiology of Exercise (4)
- 370 Kinesiology & Biomechanics (4)

(A change in PER 370 is pending. Please see PER Department, Memorial 122 before registering for Kinesiology and/or Biomechanics.)

PREREQUISITES FOR STUDENT TEACHING

PER 129, 200, 201, 317 (must have a "C" or better in each course). Two activity cores, BIO 211 and BIO 212

* Course may be used to satisfy certain General Education requirement

DEVELOPMENTAL/ADAPTED PHYSICAL EDUCATION LICENSURE

21 S.H. (Physical Education Majors Only)

Program revision pending. Please see PER Department, Memorial 122, for revised program requirements.

COACHING CONCENTRATION

12 S.H. (Teaching Degree Recommended)

Program revision pending. Please see PER Department, Memorial 122, for revised program requirements.

B.A. MINOR - DANCE (THAD/PER Co-op)

26 S.H.

REQUIRED COURSES (21 S.H.)

Theory (13 s.h.)

- * BIO 211 Anatomy & Physiology I (4)

- * THAD 115 Dance Appreciation (3)

- * THAD 131 Performance I For Everyone (3)

THAD 322 Dance Composition (3)

Technique (8 s.h.): must include at least 5 s.h. in either Ballet or Modern Dance from the following list; 2-credit technique courses may be repeated twice for credit:

PER

- * 118 Jazz Dance I (1)
- 228 Jazz Dance II (2)
- * 116 Modern Dance I (1)
- 216 Modern Dance II (2)
- 316 Modern Dance III (2)
- 416 Modern Dance IV (2)
- * 128 Ballet I (1)
- 227 Ballet II (2)
- 327 Ballet III (2)
- 427 Ballet IV (2)

ADDITIONAL REQUIREMENTS

Enrollment in THAD 090 Showcase (0 cr.) with a grade of P required each semester any other THAD dance course is taken; at least one of these enrollments must be in the senior year, when the student will assemble the required portfolio (see Portfolio Requirement section below).

ELECTIVES (5 S.H.)

PER

- * 112 Folk/Square Dance (1)
 - * 120 Ballroom Dance (1)
 - 121 Introduction to Movement and Music (1)
 - * 136 Tap Dance (1)
 - * 137 Fencing (1)
 - * 199 Lifetime Fitness (2)
 - 201 Teaching Dance (2)
- PER advanced-level dance technique courses if not used as requirements.

HHP

- * 205 Nutrition for Lifetime Wellness (3)
- 291 Prevention/Care of Athletic Injuries (2)
- 370 Kinesiology/Biomechanics (4)

THAD

- 107 Introduction to Technical Theatre (2)
- * 141 Oral Interpretation (2)
- 231 Performance II (3)
- 331 Performance III (3)
- 137 Dance Repertory I (2)
- 237 Dance Repertory II (2)
- 337 Dance Repertory III (2)
- 437 Dance Repertory IV (2)

NOTE: Each Dance Repertory class may be repeated once for a total of 4 s.h.

* Course 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, and to submit a portfolio for faculty review by May 1 in the year of graduation.

Physical Education and Recreation Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicum. The P/NC option is available to non-majors unless otherwise noted.

Physical Education
Activity Courses
Recreation

Physical Education

129 - Perspectives of Physical Education-1 S.H.

Quarter Course: 222.

Introduction and orientation to the field of Physical Education. Includes brief historical perspective, aims, objectives, values, issues, qualifications and opportunities in the profession. Majors only. Grade only.

200 - Teaching Elementary Physical Education-3 S.H.

Quarter Course: 309.

Program planning, games, materials, methods and techniques of teaching physical education activities to children for early childhood, elementary and middle school. Grade only.

201 - Teaching Dance-2 S.H.

Quarter Course: 301.

Techniques of Teaching Dance. Theory and practical experience in methods of teaching dance to all grade levels. Prerequisite: PER 121 plus one additional dance activity course. Grade only.

214 - Standard First Aid and CPR-3 S.H.

Accident scene management, victim assessment and basic life support, injury management and victim care knowledge and practice are emphasized. Certification can be earned. Grade only.

251 - Sports Science-2 S.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. Grade only.

300 - Motor Learning-2 S.H.

Quarter Course: 445G.

Theoretical foundations of motor learning and development and practical applications of theories in the teaching of motor skills across a life span. Prerequisites: STAT 208. Grade only.

304 - Techniques of Coaching Football-1 S.H.

Theory and practice of teaching and coaching football. Grade only.

305 - Techniques of Coaching Basketball-1 S.H.

Theory and practice of teaching and coaching basketball. Grade only.

306 - Techniques of Coaching Track/Field & Cross Country -1 S.H.

Theory and practice of teaching and coaching track/field and cross country. Grade only.

307 - Techniques of Coaching Baseball & Softball-1 S.H.

Theory and practice of teaching and coaching baseball and softball. Grade only.

308 - Techniques of Coaching Wrestling-1 S.H.

Theory and practice of teaching and coaching wrestling. Grade only.

311 - Techniques of Coaching Tennis-1 S.H.

Quarter Course: 313.

Theory and practice of teaching and coaching tennis. Grade only.

317 - Curriculum & Methods of Physical Education (3 s.h.)

Curriculum and teaching methods of physical education. Prerequisites: PER 129, PER 200 and one core course. Grade only.

328 - Techniques of Coaching Volleyball-1 S.H.

Quarter Course: 310.

Theory and practice of teaching and coaching volleyball. Grade only.

329 - Techniques of Coaching Gymnastics-1 S.H.

Quarter Course: 312.

Theory and practice of teaching and coaching gymnastics. Grade only.

331 - Perceptual Motor Development-2 S.H.

Quarter Course: 400G.

In-depth examination of contemporary motor developmental theories, principles of normal and abnormal motor development and clinical applications of immature locomotor patterns. Grade only.

337 - Developmental/Adapted Physical Education-3 S.H.

Quarter Course: 315.

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. Lab and practical experiences are included. Grade only.

402 - Organization and Administration of Physical Education-3 S.H.

Quarter Course: 413.

Plans of organization, administration, policies, budget, finance, legal aspects, staff, physical plant, publicity, public relations, time sched-

ules, student leaders and programs. Prerequisites: PER 129, PER 200 and PER 327. Senior standing or instructor's permission. Grade only.

406 - Coaching Practicum-2 S.H.

Directed supervision in coaching. The student proposes 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 PER Department chairperson, the student will be granted a coaching practicum under direct supervision. Prerequisite: all coursework in the coaching program must be completed before practicum begins. Grade only.

410 - Coaching Clinic-2 S.H.

Quarter Course: 480G.

Lectures, videos, demonstrations and discussions covering skills, techniques of coaching, pre-/off- season conditioning, practice sessions, conditioning, and care and prevention of injuries relative to the designated sport. May be repeated when offered with a different title.

412 - Independent Study in Physical Education, Recreation or Dance-1-3 S.H.

Quarter Course: 490.

Opportunity to work independently. Prerequisite: Junior or senior, preparation of proposed outline and major advisor's permission. Grade only.

417 - Physical Education/Recreation or Dance Clinic-1-3 S.H.

Subject matter determined by area. May be repeated when offered with a different title.

422 - Standard First Aid/Personal Safety Instructor and Basic First Aid/Cardiopulmonary Resuscitation Instructor Course-2 S.H.

Red Cross instructor certification in Basic First Aid and CPR.

434 - Developmental/Adapted Physical Education Practicum-4 S.H.

Quarter Course: 438G.

The application of skills, knowledge and concepts necessary for planning, organizing and conducting developmental/adapted physical education programs through supervised field experience. Prerequisites: PER 331, PER 337, PER 435 and PER 436. Grade only.

435 - Assessment in Adapted Physical Education-3 S.H.

Instruction in the assessment, prescription and use of instructional methods, materials and equipment relevant to specific handicapping conditions in the adapted physical education setting. Prerequisites: PER 300, PER 331 and PER 337. Recommended: MATH 110.

436 - Programming/Special Populations in Developmental/Adapted Physical Education-3 S.H.

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, emotionally disturbed, sensory impaired, orthopedically handicapped and other health disorders in selected activity areas. Prerequisites: PER 331, PER 337 and PER 435. Grade only.

ACTIVITY CORES FOR PHYSICAL EDUCATION MAJORS ONLY

All courses include comprehensive development of skills, knowledge of rules, strategies, terminology, and participation in the designated activities.

130 - Badminton, Golf, Tennis, Bowling-3 S.H.

Quarter Course: 166. Grade only.

131 - Track/Field, Softball, Conditioning, Weight Training-3 S.H.

Quarter Course: 168. Grade only.

132 - Tumbling, Rhythmic & Recreational Activities-3 S.H.

Quarter Course: 172. Grade only.

133 - Flag Football, Volleyball, Basketball, Soccer-3 S.H.

Quarter Course: 173. Grade only.

ACTIVITY COURSES - ALL STUDENTS

All activity courses are offered on an optional Pass/No Credit basis except those designated P/NC only or Grade only. Activity courses required for Physical Education Majors and Dance Minors must be taken for grade. If Physical Education activity courses are repeated to improve competency, only the final grade will count in calculating GPA. All offered yearly or on demand.

100 - Soccer-1 S.H.

Fundamental skills and knowledge necessary for the recreational purposes of the participant. Includes rules, conditioning and strategy of play.

101 - Basketball-1 S.H.

Fundamental skills and knowledge necessary for the recreational purposes of the participant. Includes rules, conditioning and strategy of play.

102 - Slow-Pitch Softball - 1 S.

Fundamental skills and knowledge necessary for the recreational purposes.

103 - Racquetball-1 S.H.

Fundamental skills and knowledge necessary for the recreational purposes of the participant. Includes rules, conditioning and strategy of play.

104 - Volleyball-1 S.H.

Quarter Course: 151.

Fundamental skills and knowledge necessary for the recreational purposes of the participant. Includes rules, conditioning and strategy of play.

112 - Folk and Square Dance-1 S.H.

Quarter Course: 201, 220.

Fundamental skills and knowledge necessary for the recreational purposes of the participant.

116 - Modern Dance I -1 S.H.

Quarter Course: 215.

A theory and lab course introducing technique, history and basic elements of choreography and performance. May be repeated twice for credit. Grade only.

118 - Jazz Dance I-1 S.H.

Quarter Course: 212.

Introduction to the basic technique and history of jazz dance and its place among other dance forms. Grade only.

120 - Ballroom Dance-1 S.H.

Quarter Course: 230.

Introduction to the basic techniques of recreational ballroom dancing. Includes the foxtrot, waltz, lindy and rumba.

121 - Introduction to Movement & Music-1 S.H.

Quarter Course: 110.

A comprehensive, practical study of fundamental dance movement and its relationship with music. World music and dance will be investigated.

122 - Beginning Swimming-1 S.H.

Quarter Course: 209.

Basic water safety skills and knowledge including physical and mental adjustment to water for non-swimmers.

123 - Swimming & Water Safety-1 S.H.

Quarter Course: 211.

For swimmers who can handle themselves in deep water. Fundamental skills and endurance related to swimming strokes and aquatic safety.

124 - Water Safety Instructor-1 S.H.

Quarter Course: 295.

Teaching methods for swimming, diving, basic water safety and program development. Culminates with Red Cross certification.

Prerequisite: PER 123 or demonstrated competency.

128 - Ballet I-1 S.H.

Quarter Course: 232.

A theory and lab course introducing technique, history and basic elements of choreography and performance. Grade only.

134 - Skiing-1 S.H.

Quarter Course: 153, 253.

Fundamental skills and knowledge appropriate for the beginner, intermediate and advanced skier. Additional fee for those who need to rent equipment. May be repeated for credit.

135 - Weight Training-1 S.H.

Quarter Course: 121.

Fundamental skills and knowledge necessary for the recreational purposes of the participant.

136 - Tap Dance-1 S.H.

Quarter Course: 126.

Introduction to tap technique emphasizing musicality, expression and style in performance within the cultural and historical context of the form. Grade only.

137 - Fencing-1 S.H.

Quarter Course: 152.

Fundamental skills and knowledge necessary for the recreational purposes of the participant. Includes rules, conditioning and strategy of play.

139 - Tennis-1 S.H.

Quarter Course: 208, 218.

Fundamental skills and knowledge appropriate for the beginner, intermediate and advanced player. Includes rules, conditioning and strategy of play. Students must supply their own racquet and balls.

140 - Bowling-1 S.H.

Quarter Course: 115.

Fundamental skills and knowledge necessary for the recreational purposes of the participant. Includes rules, conditioning and strategy of play. Additional fee.

141 - Golf-1 S.H.

Quarter Course: 219.

Fundamental skills and knowledge necessary for the recreational purposes of the participant. Includes rules, conditioning and strategy of play. Additional fee.

142 - Badminton-1 S.H.

Quarter Course: 207.

Fundamental skills and knowledge necessary for the recreational purposes of the participant. Includes rules, conditioning and strategy of play.

199 - Lifetime Fitness-2 S.H.

Quarter Course: 119, 113, 120, 124, 190.

A theory and lab course designed to encourage a lifetime commitment to regular physical fitness. Includes wellness topics, laboratory sessions and aerobic activities. Activities vary according to semester offered. Grade only.

216 - Modern Dance II-2 S.H.

Quarter Course: 246.

A theory and lab course extending technique, history and basic elements of choreography and performance. Prerequisite: PER 116 or instructor's permission. May be repeated twice for credit. Grade only.

227 - Ballet II-2 S.H.

Quarter Course: 248.

A theory and lab course extending technique, history and elements of choreography and performance. Prerequisite: PER 128 or instructor's permission. May be repeated twice for credit. Grade only.

228 - Jazz Dance II--2 S.H.

Quarter Course: 336.

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. Prerequisite: PER 118 or instructor's permission. May be repeated twice for credit. Grade only.

316 - Modern Dance III-2 S.H.

Quarter Course: 346.

Intermediate to advanced modern dance theory and technique emphasizing the development and refinement of movement skills and aesthetic awareness. May be repeated twice for credit. Grade only.

327 - Ballet III-2 S.H.

Quarter Course: 348.

Intermediate to advanced ballet theory and technique emphasizing the development and refinement of movement skills and aesthetic awareness. May be repeated twice for credit. Grade only.

416 - Modern Dance IV-2 S.H.

Quarter Course: 446.

Advanced modern dance theory and technique emphasizing the development and refinement of movement skills and aesthetic awareness. May be repeated twice for credit. Grade only.

427 - Ballet IV-2 S.H.

Quarter Course: 448.

Advanced ballet theory and technique emphasizing further development and refinement of movement skills and aesthetic awareness. May be repeated twice for credit. Grade only.

Recreation/Therapeutic Recreation**203 - Recreational Programming-3 S.H.**

Quarter Course: 203.

This course provides a perspective on current recreational and sport programming concepts. Grade only.

229 - Foundations of Recreation and Leisure Studies-3 S.H.
History and Development of recreation, and principles and philosophies of leisure. Modern-day concepts of leisure will also be addressed. Grade only.

239 - Outdoor Pursuits-3 S.H.
An overview of the theory and practice of adventure/challenge education. Processing skills included. Classroom as well as experiential involvement. Additional fee. Challenge by choice philosophy. Grade only.

240 - Outdoor Pursuits II-3 S.H.
Use of the environment for year-round adventure recreation activities and learning of advanced camping/canoeing and/or kayaking and/or rafting skills. Several day to month long camping experiences. Additional fee. Grade only.

245 - Therapeutic Recreation and Services-3 S.H.
History, philosophy, theories and professionalism of therapeutic recreation. Factors influencing service delivery and models of service delivery will also be addressed. Grade only.

302 - Tourism/Eco-Tourism-3 S.H.
An overview of the rapidly growing tourism industry, and its relation to the field of recreation and leisure studies. Course emphasis will be placed on national and international "eco-tourism" which promotes cultural and environmental sensitivity. Field trip is an additional fee. Grade only.

326 - Organization and Administration of Recreation-3 S.H.
Principles of supervision and administration as applied to tourism/outdoor/recreation and therapeutic recreation settings. Prerequisites: PER 229 and PER 245. Grade only.

332 - Leisure and Aging in Therapeutic Recreation-3 S.H.
Leisure needs and perceptions of the elderly. Implications for therapeutic recreation services in clinical and community settings. Prerequisite: PER 245. Grade only.

333 - Wilderness Outfitting and Trip Planning-3 S.H.
An overview of low-impact camping, equipment and techniques as well as administrative and leadership components of organized camping. PER 214 recommended. Grade only.

342 - Intervention Techniques in Therapeutic Recreation-3 S.H.
Helping strategies, processes and techniques utilized by the therapeutic recreation specialist. Prerequisite: PER 245. Grade only.

344 - Wilderness First Aid-3 S.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 experiences for hazard potential, select appropriate outdoor emergency equipment and to respond appropriately to wilderness health or accident emergencies. Grade only.

350 - Legal and Financial Aspects-3 S.H.
Legislation, liability and legal matters concerning recreation services; technical and behavioral aspects of budgeting; traditional and recent methods of financial park and recreation operations. Prerequisites: PER 229 and PER 245. Grade only.

398 - Practicum in Recreation/Therapeutic Recreation-3 S.H.
This course offers one an opportunity to learn by experience and further one's professional development under the careful guidance of

experienced professionals and college supervisors. May be repeated once for credit in different settings. (Pre-requisite: Must have a minimum of 2.5 GPA at the end of semester preceding practicum experience. Must have completed PER 229 and 245 and consent or special permission of department.)

399 - Internship in Recreation and Leisure Studies or Therapeutic Recreation-1-10 S.H.

The application of skill, knowledge and concepts necessary for planning, organizing and conducting recreation and therapeutic recreation programs through supervised on-site experience. Prerequisite: Director of Therapeutic Recreation and Leisure Studies' permission and 2.50 GPA. Prior to placement, Therapeutic Recreation interns also must obtain a copy of his/her intern supervisor's current NCTRC certification certificate. Additionally all Therapeutic Recreation students must complete a minimum 480 hour - 12 (or more) consecutive week placement under a full-time Certified Therapeutic Recreation Specialist. P/NC only.

412 - Independent Study in Physical Education/Recreation or Dance-1-3 S.H.
Quarter Course: 490.

Opportunity to work independently. Prerequisites: junior or senior standing, preparation of proposed outline and major advisor's permission. Grade only.

414 - Recreational Leadership-3 S.H.
A study of leadership principles, leadership techniques and leadership theories. Required recreation leader competencies and group dynamic issues also will be addressed. Prerequisites: sophomore, preferably higher standing; PER 229 and PER 245. Grade only.

417 - Physical Education/Recreation/Dance Clinic-1-3 S.H.
Typically offered on a workshop basis. Subject matter determined by department. Course may be repeated when offered with different subject matter, content and title.

421 - Outdoor Education-3 S.H.
Exploration of 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 is also addressed. Grade only.

426 - Recreation Facilities and Area Design-3 S.H.
Principles and procedures related to the design, operation and care of leisure resources areas and facilities. Prerequisites: sophomore, preferably with higher standing; PER 229 and PER 245 . Grade only.

468 - Programming in Therapeutic Recreation-3 S.H.
An overview of functional problems commonly associated with various diseases and/or disabling conditions. Therapeutic recreation program development, implementation and modification considerations. Prerequisites: sophomore, preferably higher standing; PER 229 and PER 245 . Grade only.

475 - Trends and Issues in Therapeutic Recreation-3 S.H.
Professional concerns and implication related to contemporary trends and issues in the field of therapeutic recreation. Internship site selection, assessment techniques and national exam criteria also will be addressed. Prerequisites: junior, preferably senior standing; PER 229, PER 245 and PER 342. Grade only.

PHYSICS

Pasteur Hall, Room 114, (507) 457-5260
Shields (Chairperson), Battaglini, Bloom, Bolon, Hamerski, Otto

Faculty

Dennis Battaglini, Professor; B.S.Ed., California State University of Pennsylvania; M.A.T., Ph.D., Michigan State University; 1986 -

Danning Bloom, Professor; B.A., Illinois Wesleyan University; Ph.D., University of Colorado; 1976 -

George Bolon, Professor; B.S., M.S., Oregon State University; Ph.D., University of Utah; 1968 -

David E. Hamerski, Professor; B.S., St. Mary's College of Minnesota; M.S., University of Minnesota-Twin Cities; Ph.D., Washington University (Missouri); 1961 -

Frederick Otto, Professor; B.A., B.S., Humboldt State University; Ph.D., University of California-Berkeley; 1990 -

Richard H. Shields, Professor; B.S., M.S., Eastern Illinois University; Ph.D., University of Missouri-Rolla; 1973 -

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 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 coursework in computer science.

The Physics Department presently offers a teaching major. Until 2001, students can graduate with a B.S. in Physical Science which is a Minnesota-certified teaching major for high school physics and chemistry. A new B.S. in Physics will replace the Physical Science major. This new major will be a Minnesota-certified teaching major for high school physics and will include middle school science. Students should contact the department for the most recent information. 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.

Pass/No Pass 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 benefit from the experience of planning, conducting and completing a coherent undergraduate research project. They add to their skills and understanding in a particular area of physics and practice communicating their results to their peers and the physics community. Successful completion of this project enhances their opportunities for admission to graduate school or for scientific employment following graduation.

Eligibility: To be accepted into the Honors in Physics Program, you must:

1. be a physics or physical science major
2. have completed 20 semester 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: If you are accepted into the program, you are expected to:

1. maintain a 3.0 GPA overall and within the major
2. make steady progress toward the goals of your 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 your research study at an appropriate regional meeting

Completion: If you successfully complete the Honors in Physics Program, you will have upon graduation:

1. official transcripts stamped with the words "Graduated with Honors in Physics"
2. the title of your Honors Thesis indicated on your transcript
3. your graduation status (Honors in Physics) acknowledged on the graduation program and during graduation ceremonies.

B.S. MAJOR - PHYSICS: OPTION I

69 S.H. (No Minor Required)

REQUIRED COURSES (60 S.H.)

Physics (36 s.h.)

- 221, 222, 223 University Physics I, II, III (12)
- 330 Electronics (4)
- 345 Thermodynamics (3)
- 350 Mechanics I (3)
- 430 Electricity & Magnetism I (3)
- 370 Optics (4)
- 451 Quantum Mechanics (3)
- 460, 461 Advanced Lab I, II (4)

Mathematics (16 s.h.)

- * 160 Calculus I (4)
- * 165 Calculus II (4)
- 260 Multivariable Calculus (4)
- 270 Differential Equations I (4)

Chemistry (8 s.h.)

- * 212 Chemistry I (4)
- * 213 Chemistry II (4)

ELECTIVES (9 S.H.)

Physics

- 328, 329, 332, 333, 400, 404, 405, 420, 425, 431, 435

B.S. MAJOR - PHYSICS: OPTION II - APPLIED NUCLEAR SCIENCE

60 S.H. (No Minor Required)

REQUIRED COURSES (36 S.H.)

Physics (24 s.h.)

- 221, 222, University Physics I, II (8)
- 330 Electronics (4)
- 345 Thermodynamics (3)
- 399 Internship (5)
- 404 Nuclear Radiation Physics (4)

Chemistry (4 s.h.)

- * 212 Principles of Chemistry I (4)

Mathematics (8 s.h.)

- * 160, *165 Calculus I & II (8)

NOTE: Students not prepared to take MATH 160 should take MATH 120

ELECTIVES (24 S.H.)

Physics

- 400 Seminars (may be repeated for credit)
- Nuclear Instrumentation & Control (3)
- Reactor Theory I (2)
- Reactor Theory II (2)
- Reactor Theory III (2)
- 440 Math Methods in Physics I (3)

441 Math Methods in Physics II (3)

Engineering

284 Properties of Materials (4)

350 Fluid Mechanics (3)

370 Heat & Mass Transfer (3)

* Course may be used to satisfy certain General Education requirement

B.S. MAJOR - PHYSICS: OPTION III - ELECTRONICS

74 S.H. (No Minor Required)

REQUIRED COURSES (68 S.H.)

Physics (41 s.h.)

221, 222, 223 University Physics I, II, III (12)

328 Electrical Circuits I (4)

330 Electronics (4)

332 Computer Organization (2)

333 Microprocessor Electronics (3)

420 Control Theory (3)

425 Semiconductor Physics (3)

430 Electricity & Magnetism I (3)

451 Quantum Mechanics (3)

460, 461 Advanced Lab I, II (4)

Mathematics (16 s.h.)

160 Calculus I (4)

165 Calculus II (4)

260 Multivariable Calculus (4)

270 Differential Equations I (4)

Chemistry (8 s.h.)

* 212 Chemistry I (4)

* 213 Chemistry II (4)

Computer Science (3 s.h.)

CS 231 Fortran for Engineering and Science (3) OR

CS 234 Algorithms and Problem Solving (3) OR

CS 298 Unix and C Programming (3)

ELECTIVES (6 S.H.)

Physics

329, 345, 350, 370, 399, 400, 404, 405, 431, 435

* Course may be used to satisfy certain General Education requirements

B.S. MINOR - PHYSICS

33 S.H.

REQUIRED COURSES (16 S.H.)

Physics (8 s.h.)

201 General Physics I (4)

202 General Physics II (4) OR

221 University Physics I (4)

222 University Physics II (4)

Mathematics (8 s.h.)

* 160 Calculus I (4)

* 165 Calculus II (4)

NOTE: Students not prepared to take MATH 160 should take MATH 120.

ELECTIVES (17 S.H.)

Physics

223, 328, 329, 330, 332, 333, 340, 345, 350, 370, 400, 404, 405, 420, 425, 430, 431, 435, 451, 460, 461

* Course may be used to satisfy certain General Education requirements

B.S. MINOR - ELECTRONICS

33 S.H.

REQUIRED COURSES (25 S.H.)

Physics (17 s.h.)

201, 202 General Physics I, II (8) OR

221, 222 University Physics I, II (8)

330 Electronics (4)

332 Computer Organization (2)

333 Microprocessor Electronics (3)

Mathematics (8 s.h.)

* 160, *165 Calculus I, II (8)

NOTE: Students not prepared to take MATH 160 should take MATH 120.

ELECTIVES (8 S.H.)

Physics

223, 328, 329, 350, 370, 399, 420, 425, 430, 431, 435, 451, 460, 461, 490

* Course may be used to satisfy certain General Education requirements

B.S. MAJOR - PHYSICAL SCIENCE (Teaching)

62 S.H. (No Minor Required)

NOTE: The Minnesota Board of Teaching (BOT) was in the process of changing the requirements for teaching licensure at the time that this catalog went to print. The Physics Department, in cooperation with other science departments and the College of Education, is currently developing a new BS (Teaching)-approvable program which will be implemented as soon as possible. Students should be aware that the program described below will be changing significantly in the near future, and they will need to work closely with their academic advisor to ensure that they will be able to graduate with a BO- approved degree.

REQUIRED COURSES (52 S.H.)

Chemistry (20 s.h.)

212, 213 Principles of Chemistry I, II (8)

350 Organic Chemistry I (4)

Plus 8 s.h. of electives from the chemistry electives below OR

212, 213 Principles of Chemistry I, II (8)

340 Organic Chemistry Survey (4)

360, 361 Chemical Information I, II (2) OR

427 Topics in Instrumental Chemistry (2) OR

431 Guided Studies in Teaching Chemistry (2)

PLUS 6 s.h. of electives from the chemistry electives below.

Mathematics (8 s.h.)

* 160, *165 Calculus I, II (8)

NOTE: Students not prepared to take MATH 160 should take MATH 120

Physics (22 s.h.)

201, 202 General Physics I, II (8)

223 University Physics III (8)

311 Science Teaching Methods (4)

OR

221, 222, 223 University Physics I, II, III (12)

311 Science Teaching Methods (4)

PLUS 6 s.h. of electives from physics electives below.

ELECTIVES (10 S.H.)

Chemistry

351, 360, 361, 400, 412, 414, 425, 427, 431, 450, 465

Engineering

182, 250, 260, 270, 284, 300

Physics

302 or 328, 329, 330, 332, 333, 345, 350, 370, 400, 420, 425, 430, 431, 451

* Course may be used to satisfy certain General Education requirements

WISCONSIN CERTIFICATION REQUIREMENTS FOR PHYSICS CONCENTRATION

22 S.H.

Select credits under Required Courses and Electives to give a concentration of 22 s.h. of physics. Other requirements for Wisconsin Certification:

- BIO 104 Conservation of the Environment (3)
- Geology Elective (3)
- Biological Science Elective (3)

B.S. MINOR - AIRWAY SCIENCE/AVIATION

26 S.H.

REQUIRED COURSES (26 S.H.)

Physics

- * 201, 202 General Physics I, II (8)

Mathematics (3 s.h.)

- * 140 Applied Calculus (3)

NOTE: Students not prepared to take MATH 140 should take MATH 120

Management and Marketing (3 s.h.)

- 310 Business Law (3)

Aviation (12 s.h.)

- * 200 Fundamentals of Aviation (4)
- 383 Air Traffic Control (3)
- 387 Flight Safety (3)
- 388 Legislative & Legal Aspects of Aviation (2)
- * Course may be used to satisfy certain General Education requirement

NOTE: For a complete listing of the FAA-approved Airway Science Program, see the Special Academic Programs section of this catalog.

Physics Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicums. The P/NC option is available to non-majors unless otherwise noted.

PHYSICS COURSES

115 - Conceptual Physics-4 S.H.

Many demonstrations, everyday applications and hands-on interactive simulations are used to make physics understandable to the general education student. Non-mathematical approach. No prerequisites. Lab. Not open to students with credits in higher numbered non-aviation physics courses. Offered each semester.

201 - General Physics I-4 S.H.

An algebra-based course covering the principles of mechanics, waves, sound and fluids for those contemplating the study of biology, medicine, etc. or seeking a general education course in the physical sciences. Lecture and laboratory. Prerequisite: MATH 120. Offered each semester.

202 - General Physics II-4 S.H.

A continuation of 201. Principles of thermodynamics, electricity and magnetism, light and modern physics. Lecture and laboratory. Prerequisite: PHYS 201. Offered each semester.

221 - University Physics I-4 S.H.

A calculus-based course covering mechanics, sound and waves which aims to meet the specific requirements of students who expect to major in physics, mathematics, chemistry, or engineering. Lecture and laboratory. Prerequisite: MATH 160. Offered each semester.

222 - University Physics II-4 S.H.

A continuation of PHYS 221, covering thermodynamics, electricity and magnetism. Lecture and laboratory. Prerequisites: PHYS 221 and MATH 165. Offered each semester.

223 - University Physics III-4 S.H.

A continuation of PHYS 222 covering light, relativity, nuclear physics and special topics in modern physics. Lecture and laboratory. Prerequisite: PHYS 222. Offered yearly.

302 - Electrical Circuits-3 S.H.

DC and AC circuit analysis, including RC, RL, RLC and three phase network analysis. Lecture only. Prerequisites: PHYS 222 and MATH 165. Offered yearly.

310 - Science and Technology in Litigation-4 S.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: HIST 365, HIST 370 and HIST 377 or instructor's permission.

311 - Science Teaching Methods-4 S.H.

The application of current research trends and modern technology in science education are used to prepare science majors for the teaching of secondary school science content and process. Prerequisites: acceptance in the Education Department, two years of coursework in a science major and PHYS 201 or PHYS 221. Science Teaching Methods is a prerequisite to student teaching. Offered yearly.

328 - Electrical Circuits and Measurements I-4 S.H.

DC and AC circuit analysis, including RC, RL, RLC and three phase network analysis. Includes laboratory. Prerequisites: PHYS 202 or PHYS 222 and MATH 165. Offered yearly.

329 - Electrical Circuits and Measurement II-4 S.H.

A continuation of PHYS 328 covering magnetically coupled circuits, complex frequency approach, and the application of Laplace and Fourier transform techniques. Introduces computer analysis and design of linear circuits. Lecture and laboratory. Prerequisite: PHYS 328. Offered on demand.

330 - Electronics-4 S.H.

A lecture-laboratory course in solid state electronics including circuit theory, diodes, transistors, power supplies, amplifiers, waveform generators and integrated circuits. Prerequisites: PHYS 222 or PHYS 202 and MATH 165 or instructor's permission. Offered every year.

332 - Computer Organization-2 S.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. Prerequisites: PHYS 202 or PHYS 222 or CS 250. Offered yearly.

333 - Microprocessor Electronics-3 S.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: PHYS 332. Offered yearly.

345 - Thermodynamics-3 S.H.

Equations of state, first and second law, equilibrium, irreversibility and mixture. Prerequisites: PHYS 202 or PHYS 222 and MATH 165. Offered every two years.

350 - Mechanics I-3 S.H.

Fundamental laws of mechanics of particles and rigid bodies including vibrations. Prerequisites: PHYS 201 or PHYS 221 and MATH 165. Offered every two years.

370 - Optics-4 S.H.

A study of geometrical optics, the wave theory of light, interference, diffraction, polarization, magneto- and electro-optics, lasers and holography. Lecture-laboratory course. Prerequisites: PHYS 203 or PHYS 223 and MATH 165. Offered every two years.

399- Internship - 1-8 S.H.

Supervised industrial, business or government experience designed by the WSU physics advisor, the work supervisor, and the student. Open only to junior or senior level physics major or minor. P/NC only. Prerequisite: Department approval. Offered on demand.

400 - Seminars-1-4 S.H.

This course consists of one or more seminars offered from time to time on a variety of topics in physics. Students may repeat the course under a different topic. Prerequisite: instructor's permission. Offered on demand.

404 - Nuclear Radiation Physics-4 S.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: PHYS 202 or PHYS 222 or instructor's permission. Offered on demand.

405 - Mechanics II-3 S.H.

A continuation of PHYS 350 including central force field, scattering, and Lagrangian and Hamiltonian mechanics. Prerequisite: PHYS 350. Offered every two years.

420 - Control Theory-3 S.H.

Quarter Course: 400.

An introduction to the design, analysis techniques and behavior of linear feedback control systems. Both transfer function and state variable models are used to study the input and output character-

isites and interactions of the functional blocks which comprise the system model. Prerequisites: PHYS 202 or PHYS 222 and MATH 270. Offered every two years.

425 - The Physics of Semiconductors-3 S.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: PHYS 451. Offered every two years.

430 - Electromagnetic Theory I-3 S.H.

Electrostatics including Gauss's Law and Laplace's Equation. Magnetostatics. Introduction to Maxwell's Equations. Prerequisites: PHYS 202 or PHYS 222 and MATH 270. Offered every two years.

431 - Electromagnetic Theory II-3 S.H.

A continuation of PHYS 430 with applications of Maxwell's equation to waveguides, optics and special relativity. Prerequisite: PHYS 430. Offered every two years.

435 - Statistical Physics- 3 S.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.

440 - Mathematical Methods in Physics I-3 S.H.

Partial differential equations of mathematical physics. Orthogonal functions. Fourier series. Prerequisites: PHYS 202 or PHYS 222 and MATH 270. Offered on demand.

441 - Mathematical Methods in Physics II-3 S.H.

Eigenvalue problems, Sturm-Liouville Theory, Matrix theory, Numerical techniques, Special functions, and Laplace and Fourier transforms. Prerequisite: PHYS 440. Offered on demand.

451 - Quantum Mechanics-3 S.H.

A continuation of PHYS 223. Interpretation of wave functions. Systems in one dimension. Hermitian operators and angular momentum. Electron spin. Systems in two or three dimensions. Prerequisite: PHYS 223. Offered every two years.

460 - Advanced Laboratory I-2 S.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 nature of matter. Prerequisites: PHYS 223 and 6 additional semester hours of Physics. Offered yearly.

461 - Advanced Laboratory II-2 S.H.

A continuation of PHYS 460, with individual experimental projects. Offered yearly.

490 - Individual Problems in Physics-1-3 S.H.

An opportunity for the qualified advanced undergraduate to work independently. Topics may include research, development of special skills, selected readings, etc. Prerequisite: permission of the physics advisor. May be repeated to a total of 3 credits. Offered on demand as an arranged class.

AVIATION COURSES

200 - Fundamentals of Aviation-4 S.H.

Fundamentals of aviation provides the student with the understanding, knowledge and competencies that are necessary to complete the FAA private pilot written knowledge examination as well as a general overview of aviation to include the physical principles involved in flight. Offered quarterly.

204 - Private Flight Laboratory-3 S.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 to earn credit. Offered yearly.

300 - Fundamentals of Instrument Flight-4 S.H.

Provides the student with aeronautical understanding, knowledge and competencies for successful completion of the FAA instrument written knowledge 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-3 S.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, GPS and VOR approach techniques and proficiencies. Student must

enroll in the course to receive credit. Offered yearly.

380 - Seminars in Aviation Organization-1-3 S.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-2 S.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 and 135 operations. Taught by staff and adjunct industry personnel. Prerequisites: PHYS 200 and BA 310 or instructor's permission. Offered every two years.

382 - Airline Operations-2 S.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: PHYS 381 or instructor's consent. Offered every two years.

383 - Air Traffic Control-3 S.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: PHYS 200 or instructor's permission. Offered yearly.

384 - Airport Operations-2 S.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. Prerequisites: PHYS 200 and BA 310 or instructor's permission. Offered every two years.

387 - Flight Safety-3 S.H.

This course covers the certification process for FAR 23 and 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: PHYS 200 or the instructor's permission. Offered yearly.

388 - Legislative and Legal Aspects of Aviation-2 S.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: PHYS 200 and BA 310 or instructor's permission. Offered yearly.

401 - Advanced Fundamentals of Aviation-4 S.H.

Provides the student with aeronautical understanding, knowledge and competencies that are necessary for successful completion of the FAA commercial pilot written knowledge 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-3 S.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 yearly.

410 - Turbojet-Prop. Transport Seminar-1-3 S.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-3 S.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. Prerequisites: PHYS 301 and PHYS 402 or instructor's permission. Offered on demand.

412 - F-27 Pilot School-Initial-4 S.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. Prerequisites: PHYS 301 and PHYS 402 or instructor's permission. Offered as required.

POLITICAL SCIENCE

Minne Hall, Room 120, (507) 457-5500

Grover (Chairperson), Bosworth, Bromeland, Csajko, Downs, El-Afandi, Lee

Faculty

Matthew Bosworth, Assistant Professor; BA Johns Hopkins University; M.A., Ph.D., University of Wisconsin-Madison; 1997-

James Bromeland, Associate Professor; B.A., M.S., Mankato State University; 1971 -

Karen Csajko, Assistant Professor; M.A., Portland State University; Ph.D., University of California-Berkeley; 1996-

Darrell Downs, Associate Professor; B.A., B.S., Montana State University; M.S., Oregon State University; Ph.D., Colorado State University; 1992 -

Ahmed El-Afandi, Professor; B.Com., University of Alexandria; M.A., Ph.D., University of Missouri-Columbia; 1968 -

Yogesh Grover, Professor; B.A., M.A., University of Delhi (India); Ph.D., University of Missouri-Columbia; 1988 -

Frederick Lee, Associate Professor; A.B., University of New Orleans; A.M., Ph.D., University of Michigan; 1992 -

Political Science deals with the theory and practice of politics, government and administration. As an academic discipline, it includes political theory; public law; public administration; American politics and public policy; foreign policy and international relations; and comparative governments and politics of different countries.

The primary objective of the Political Science curriculum is to prepare students for graduate studies and/or careers in government, business or education. The study of political science also provides a strong background for success in law school and related careers found in public service. Generally, students majoring in Political Science find that it helps them understand the changing political environment and prepares them to take responsibility in their community, nation and world.

Pass/No Credit Courses

All courses in the Major and Minor must be taken on a Grade Only basis except Internships. The P/NC option is available to non-majors.

Double Majors

For students majoring in both Political Science and Public Administration, required courses for one major can be applied to the requirements of the other but at least 15 semester hours must be non-duplicative.

Courses for Political Science and Public Administration programs

The Department of Political Science and Public Administration at WSU offers the following courses for Political Science and Public Administration programs.

American Politics	429 Policy Reform (3)	205 United Nations in World Affairs (3)
120 Introduction to American Politics (3)	430 Agency Reform (3)	342 International Political Economy (3)
201 Politics and Violence (3)	Comparative Politics	346 International Law (3)
221 State & Local Government (3)	135 Comparative Political Systems (3)	347 International Organization (3)
227 Judicial Process & Politics (3)	224 Politics & Society in Latin America (3)	422 American Foreign Policy (3)
228 Public Service (3)	225 Ethnic Conflict & Nationalism (3)	488 Issues in International Politics (3)
315 American Political Thought (3)	226 Politics & Society in Africa (3)	Political Theory
320 Constitutional Law (3)	270 Politics & Society in the Middle East (3)	150 Introduction to Political Theory (3)
321 The American Presidency (3)	332 European Political Systems (3)	260 Classical Political Thought (3)
322 Political Parties & Pressure Groups (3)	335 Latin American Political Systems (3)	315 American Political Thought (3)
330 Race and American Politics (3)	336 Post-Communist Political Systems (3)	325 Modern Political Theory (3)
333 Media & Politics (3)	337 Asian Political Systems (3)	358 Contemporary Political Thought (3)
340 Environmental Policy (3)	390 Comparative Politics of the Third World (3)	450 Feminist Political Theory (3)
341 Health Care Politics & Policy (3)	475 Democratization & Its Challenges (3)	Research and Methodology
360 American Congress (3)	International Politics	380 Political Research I - Secondary (3)
420 Administrative Law (3)	130 Introduction to International Relations (3)	410 Political Research II - Primary (3)
425 Policy Studies (3)		
426 The Politics of Public Budgeting (3)		

B.A. MAJOR POLITICAL SCIENCE - GENERAL (OPTION A)

42 S.H. (Minor Required)

REQUIRED COURSES (6 S.H.)

- 120 Introduction to American Politics (3)
- 380 Political Research I - Secondary (3)

ELECTIVES (36 S.H.)

36 s. h. are required with at least 15 credits at the 300 level or above, and at least 3 s.h. in each of the following sub-fields: American Politics, Comparative Politics, International Politics and Political Theory. See sub-fields and courses listed above.

B.A. MAJOR POLITICAL SCIENCE - INTERNATIONAL STUDIES (OPTION B)

42 S.H. (Minor Required)

This option enables students to get a B.A. degree in Political Science by specializing in International Relations. A degree in Political Science with an emphasis on International Relations may

be combined with either a minor or a major in International Business, Economics or Foreign Languages to broaden the scope of opportunities after graduation. Most of the requirements for this major can be met by taking electives, although a core of five courses is required.

REQUIRED COURSES (15 S.H.)

- 120 Introduction to American Politics (3)
- 130 Introduction to International Relations (3)
- 135 Introduction to Comparative Politics (3)
- 380 Political Research I - Secondary (3)
- 422 American Foreign Policy (3)

ELECTIVES (27 S.H.)

Students must take the remaining nine courses from International Politics and Comparative Politics sub-fields. No more than three 200-level courses will apply toward the major requirements.

B.A. MINOR - POLITICAL SCIENCE

21 S.H.

REQUIRED COURSE (3 S.H.)

- *120 Introduction to American Politics (3)

ELECTIVES (18 S.H.)

Eighteen (18) s.h. with at least 3 s.h. each in three of the four subfields: American, Comparative, Theory, International.

* Course may be used to satisfy certain General Education requirement

PUBLIC ADMINISTRATION

The Bachelor of Science major and minor in Public Administration are designed to prepare students for an administrative career in public and non-profit agencies. The core curriculum of this program provides students with the competency areas recommended by the National Association of Schools of Public Affairs and Administration.

This program is uniquely designed to serve students seeking employment in the traditional fields of public service, as well as those intending to pursue graduate study in the more specialized areas of policy analysis and program management. Students in this program are strongly encouraged to work closely with their advisor to select a major/minor combination that serves the student's career goals. See the Department of Political Science and Public Administration for more information and advising.

B.S. MAJOR - PUBLIC ADMINISTRATION

33 S.H. (Minor Required)

REQUIRED COURSES (33 S.H.)

- 120 Introduction to American Politics (3)
- 221 State & Local Government (3)
- 228 Public Service (3)
- 380 Political Research I - Secondary (3)
- 320 Constitutional Law (3)
- 410 Political Research II - Primary (3)
- 416 Internship (minimum of 3)
- 420 Administrative Law (3)
- 425 Policy Studies (3)
- 426 Politics of Public Budgeting (3)
- 429 Policy Reform (3)

B.S. MINOR - PUBLIC ADMINISTRATION

24 S.H.

REQUIRED COURSES (24 S.H.)

- * 120 Introduction to American Politics (3)
- 221 State & Local Government (3)
- 228 Public Service (3)
- 380 Political Research I - Secondary (3)
- 410 Political Research II - Primary (3)
- 425 Policy Studies (3)
- 426 Politics of Public Budgeting (3)
- 429 Policy Reform (3)

* Course may be used to satisfy certain General Education requirement

Political Science Course Descriptions

All courses in the major, minor, options, concentrations and licensures must be taken on a Grade Only basis except Internships and Practicums. The P/N/C option is available to non-majors.

120 - Introduction to American Politics-3 S.H.

Quarter Course: 220.

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.

130 - Introduction to International Relations-3 S.H.

A general introduction to the major concepts and theories employed to analyze world affairs, and to the behavior of major actors involved - states, multinational corporations and international organizations. Can be used to meet General Education requirement for Social Science if the course is not being used in the major. Offered every semester.

135 - Comparative Political Systems-3 S.H.

Quarter Course: 235.

Comparative study of different political systems with an emphasis on the frameworks used to compare them, and the concepts used to analyze and describe politics in different countries. Also includes treatment of case studies. Offered yearly.

150 - Introduction to Political Theory - 3 S.H.

This course is an introduction to the study, reading, and analysis of political texts, designed for students who do not have much familiarity with politics or theory, but are interested in investigating enduring questions of political thought, such as: What is freedom? What is the relationship between politics and conflict? What does it mean to be a member of a polity? What is justice?

199 - First-Year Seminar-1-3 S.H.

An open discussion of some political topics of current interest. Discussion centers around causes and possible remedies of some of the maladies of modern society. The different alternatives are discussed with an eye toward acquiring a better understanding of the problems. May be taken for up to 3 semester hours.

201 - Politics and Violence-3 S.H.

A study of the modern and enduring questions about violence, its origins, causes, and its cures, this course explores violence from a political science as well as from an interdisciplinary perspective. Offered every semester.

205 - The United Nations in World Affairs-3 S.H.

The structure and functions of the United Nations and the way it deals with major issues of war and peace. The rules of operation of the United Nations to facilitate student participation in Model UN Conferences. Offered every two years.

221 - State & Local Government-3 S.H.

An examination of the structure and policies of state and local governments in the U.S. and the relationships among national, state and local governments in the areas of education, welfare, criminal justice, economic development and environmental protection.

224 - Politics & Society in Latin American-3 S.H.

Quarter Course: 124.

A study of the impact of factors such as religion, wealth, natural resources, modern ideologies, nationalism, etc. on the lives of individuals, groups and countries of Latin America and their politics. May be used for General Education Requirements under Different Culture or Social Science if the course is not being used in the major. Offered whenever possible.

225 - Ethnic Conflict and Nationalism-3 S.H.

Since the end of the Cold War, there has been an increase in nationalism and ethnic conflict throughout the world. This course analyzes this increasingly important international phenomenon, focusing on the causes and the characteristics of nationalism, the international consequences of what might appear to be national problems, and the prospects of conflict resolution and political reform in areas suffering from these problems.

226 - Politics & Society in Africa-3 S.H.

Quarter Course: 126.

A study of the political cultures of African nations north and south of the Sahara. A study of the impact of factors such as religion, wealth, natural resources, geographic location, ethnic mix, modern ideologies, etc. on the lives of individuals and nations and on the politics of the African nations. May be used for General Education Requirements under Different Culture or Social Science area if the course is not used to meet the major or minor requirements. Offered fall semester.

227- Judicial Process & Politics - 3 S.H.

This course will provide an overview of the American legal process from a political perspective, covering basic court structure, legal actors, criminal and civil procedures, judicial impact, and comparative court systems. Offered yearly. Prerequisite: POLS 120 or instructor's permission.

228 - Public Service-3 S.H.

The theory and practice of public service and administration. The emphasis is on political processes as they affect administrative policy and problem solving in public and non-profit organizations. Prerequisite: POLS 120.

260 - Classical Political Thought-3 S.H.

What is politics? This course looks at Greek and Christian thinkers who first considered this question, from Sophocles to Plato to St. Augustine. Offered once every two years.

270 - Politics and Society in the Middle East-3 S.H.

Quarter Course: 123.

A study of the impact of factors such as religion, wealth, natural resources, traditional ideologies, modern ideologies, etc., on the lives of individuals and nations and on politics in the countries of the Middle East and among them. May be used for General Education Requirements under Different Culture or Social Science area if the course is not used to meet the major or minor requirements. Offered every year.

315 - American Political Thought-3 S.H.

An examination of the role of ideas in shaping American politics. Covering major political movements in the U.S. including revolutionary thought, constitutionalism, populism, pragmatism, socialism, conservatism, communitarianism and feminism. Prerequisite: POLS 120.

320 - Constitutional Law-3 S.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: POLS 120.

321 - American Presidency-3 S.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: POLS 120.

322 - Political Parties & Pressure Groups-3 S.H.

Development, characteristics, organization and politics of the major American political parties. Includes an examination of the nominating process, party campaigns and finances, elections, voting behavior and the role and techniques of interest groups. Prerequisite: POLS 120.

325 - Modern Political Theory-3 S.H.

A study of the political ideas central to liberalism and its critics. Focus will be on Hobbes, Locke, Rousseau, and Marx. Offered once every two years.

330 - Race & American Politics-3 S.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: POLS 120 or instructor's permission.

332 - European Political Systems-3 S.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. Prerequisite: sophomore standing. Offered every year.

333 - Media and Politics-3 S.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: POLS 120 or instructor's permission.

335 -Latin American Political Systems—3 S.H.

A comparative study of the structure and dynamics of Latin American governments and politics. Prerequisite: Sophomore standing. Offered on demand.

336 - Post Communist Political Systems-3 S.H.

A comparative study of transitions from communistic to liberal political and economic systems, and an analysis of unique problems of conversion from totalitarian systems to democracy, and from command economies to market economies. The course also includes discussion of countries which did not make the above transition. Offered every two years. Prerequisite: sophomore standing or instructor's permission.

337 - Asian Political Systems-3 S.H.

A comparative study of the political systems in Asia with an emphasis on the structure of governments, the extent of their effectiveness and the role of non-governmental actors: army; political parties; economic, social and cultural groups in politics. Variable focus on either the major powers like China, Japan and India or the Asia Pacific countries, and the factors responsible for their economic dynamism. Offered every two years. Prerequisite: sophomore standing or instructor's permission.

340 - Environmental Policy-3 S.H.

A seminar in environmental policy analysis. Students examine and assess a variety of global, national, local and inter-governmental environmental problems and governmental efforts in response to manage these problems. Special emphasis is placed on air and water pollution, erosion, toxic wastes, species loss and population growth.

341 - Health Care Politics & Policy-3 S.H.

An analysis of the politics of health care. Special emphasis is placed on the formulation of health care policy and policy reform in the United States, but health care systems of other industrialized nations and developing nations also are examined.

342 - International Political Economy-3 S.H.

Quarter Course: 240.

An introduction to the relationship between international politics and international economics, and the theories of international political economy. The topics cover the following: the politics of international trade, investment and foreign aid; the consequences of the multi-national corporations on international relations and their political role; economic foreign policy-making and its implications for national and international politics. Offered every two years. Prerequisite: POLS 130 or instructor's permission.

346 - International Law-3 S.H.

The nature and sources of international law; jurisdiction of states over persons and territory; recognition of states and governments; law of the sea; principle of state responsibility; law of treaties; and transnational legal problems. Prerequisite: POLS 130 or instructor's permission.

347 - International Organizations-3 S.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: POLS 130 or instructor's permission.

358 - Contemporary Political Thought

This is the third part of a three part survey course on The History of Political Thought series offered in the Political Science department. This course studies major contemporary thinkers in the canon, such as Nietzsche, Foucault, Arendt, Camus, and Rawls. Offered once in two years.

360 - American Congress -3 S.H.

An examination of the role of Congress in shaping policy and representing constituents. Topics covered include the organization of Congress, Congressional leadership, voting coalitions and proposals for reform. Prerequisite: POLS 120.

380 - Political Research I-Secondary-3 S.H.

Quarter Course: 280.

An introduction to research approaches in the discipline of political science covering the scope of the discipline, the different schools of thought and approaches to the study of the discipline. Emphasis is placed on secondary research. Students are introduced to the "classical" works and journals in the field, usage of statistics and computers, the Internet and multimedia devices as research tools. Students also are introduced to the institutional, functional, philosophical and legal approaches to the study of politics. A strong background in mathematics and/or statistics is highly recommended. Offered fall semester. Prerequisite: POLS 120 or instructor's permission.

390 - Comparative Politics-Third World-3 S.H.

Quarter Course: 290.

A comparative study of the political ideological, social and economic development in selected countries from the Third World. Countries covered may vary each time the course is offered but will include examples from the African, Asian and Latin American continents. Prerequisites: sophomore standing or instructor's permission. Offered spring semester.

401 - Independent Readings in Political Science-1-3 S.H.

Readings in an area of political science of particular interest to the student. Credit arranged.

410 - Political Research II-Primary-3 S.H.

Capstone experience that allows students to do original primary research using the various primary research tools and approaches used in the study of practical phenomena and processes. Emphasis is placed on problem-solving and critical thinking. Students have a capstone experience in which they apply knowledge gained in this and other courses to an original research problem. Survey research techniques are studied and a practical survey project is undertaken. Prerequisites: POLS 380 and senior standing. Offered spring semester.

416 - Internship Program-1-12 S.H.

To provide practical experience in local, state and national government, and public administration (limited enrollment). Credit arranged. (Cannot apply toward a graduate degree).

420 - Administrative Law-3 S.H.

An exploration of the law of the administrative process: legislative, executive and judicial control of administrative action, the formal administrative process; administrative discretion; with due consideration to the Federal Administrative Procedure Act. Prerequisites: POLS 120 : Recommended POLS 320.

422 - American Foreign Policy-3 S.H.

A study of contemporary United States foreign policy. The course includes an analysis of threats and issues originating from the external world and facing America, and the suitable American response, responsibilities and commitments. Offered every two years. Prerequisite: POLS 130 or instructor's permission.

425 - Policy Studies-3 S.H.

An introduction to the evaluation of public policy in the United States. Students assess the process and substance of policy on various topics such as pollution, poverty, crime, illness and violence. Offered every two years. Prerequisite: POLS 120.

426 - Politics of Public Budgeting-3 S.H.

An examination of the politics of budgeting at the state, local and national level. Consideration is given to program planning, inter-governmental relations, the government and the economy, and reforms in budgetary systems. Prerequisites: POLS 120 and POLS 228.

429 - Policy Reform-3 S.H.

Strategies and problems of making, implementing and changing public policy. Discussion addresses policy stakeholders as they are involved in developing and reforming public policy. Offered every two years. Prerequisite: POLS 120.

430 - Agency Performance-3 S.H.

The civil service movement, public personnel systems and contemporary strategies to manage personnel for higher levels of performance. Prerequisites: POLS 120 and POLS 228.

450 - Feminist Political Theory - 3 S.H.

This course investigates different perspectives in feminist political thought. Students will consider psychological, marxist, radical, liberal, utopian, and French Feminist arguments, in order to understand the ways that political theorists have wrestled with the question of woman/women. Offered every two years.

475 - Democratization and Its Challenges-3 S.H.

The emphasis of this course is on the wave of democratization that is sweeping the world and the challenges that the new democracies face in consolidating themselves. This course covers the theory of democracy and the institutional, cultural and socio-economic challenges that countries face as they seek to make the transition from dictatorship to democracy.

488 - Issues in International Politics-3 S.H.

The purpose of the course is to enable students to have an opportunity to discuss a variety of contemporary global issues which may not be covered in a regular course, e.g. terrorism, religious fundamentalism, human rights and state sovereignty and ethno-nationalism. Topics vary from year to year, depending upon their prominence or the instructor's judgment that they should receive consideration. Offered every two years. Prerequisite: POLS 130 or instructor's permission.

499 - Seminar-1-3 S.H.

The subject matter is arranged by the instructor before the course is offered. Students can repeat the course without limitation on the number of credits as long as the subject matter is different.

PRE-PROFESSIONAL SEQUENCES:

Pre-professional sequences are not degree programs (e.g. major or minor) at WSU. They are programs that are preparatory for a degree at another college or university.

Pre-Dental Hygiene

Pasteur Hall, Room 215B, (507) 457-5272

Web Address: http://bio.winona.msus.edu/biohp/acad_deg.htm

Dr. David Essar, Advisor

Programs are custom-designed to meet preliminary or basic sciences of the University of Minnesota, University of Minnesota-Duluth, Mankato State University, Normandale Community College and RCTC/Minnesota Riverland Technical College.

Pre-Dentistry

Pasteur Hall, Room 215B, (507) 457-5272

Dr. David Essar, Advisor

Web address: <http://bio.winona.msus.edu/biohp/aoad-deg.htm>

RECOMMENDED COURSES

This program has been planned especially for students expecting to enter the School of Dentistry at the University of Minnesota. However, this program also meets the needs of at least 90 percent of U.S. dental schools. Most entering dental students have a bachelor's degree. Students planning to enter dental schools other than the University of Minnesota should consult the catalog of their chosen schools. All pre-dentistry students are encouraged to consult with the advisor to help plan their program. Most pre-dental students follow either the Allied Health Option or the Cell and Molecular Option as described under the Biology Department's programs.

ENG * 111 College Reading and Writing (4 s.h.)

ENG * 201/223 (an upper-division English literature course) (3 s.h.)

CMST * 191 Fundamentals of Speech Communication (3 s.h.)

BIOL *241, *242 Principles of Biology I, II (8 s.h.)

MATH *150, *155 Mathematics for the Earth and Life Sciences I, II (6 s.h.)

CHEM *212, *213 Principles of Chemistry I, II (8 s.h.)

CHEM 350, 351 Organic Chemistry I, II (9 s.h.)

BIOL 201 Human Anatomy (4 s.h.)

PHYS *201, 202 General Physics I, II (8 s.h.)

PSY *210 General Psychology (3 s.h.)

PSY 250 Developmental Psychology (3 s.h.)

Elective Courses

Elective courses should be chosen to give students a broad liberal education within the limits of time available. Electives from the following areas are suggested: sculpturing, cell and molecular biology, biochemistry, 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.

Pre-Engineering

Stark Hall, Room 203, (507) 457-5685

Department of Engineering Advisor

The following courses are recommended for a pre-engineering sequence. However, it is strongly recommended that students seek the advice of an advisor from the Department of Engineering for specific course recommendations and class schedules.

CHEMISTRY

212 Principles of Chemistry I (4)

213 Principles of Chemistry II (4)

COMPUTER SCIENCE

231 Fortran for Engineering and Science (3)

MATH

160 Calculus I (4)

165 Calculus II (4)

260 Multivariable Calculus (4)

270 Differential Equations and Linear Algebra (4)

PHYSICS - 8 s.h.

221 University Physics I (4)

222 University Physics II (4)

302 Electrical Circuits and Systems (3)

ENGINEERING

102 Introduction to Engineering (2)

182 Engineering Graphics and Design (2)

250 Statics (3)

260 Mechanics of Materials (3)

270 Dynamics (3)

300 Thermodynamics (3)

ENGLISH

111 College Reading and Writing (4)

GENERAL EDUCATION COURSES

Pre-Law

Minne Hall, Room 212, (507) 457-5400

Dr. Troy Paimo, 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 provides a breadth of knowledge with in-depth study of areas of special interest. It also is suggested that electives be taken in areas not too closely related to a major field or study. Many Pre-Law students major in English, History, Law and Society, Paralegal, Political Science or Economics. 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)

Pasteur Hall, Room 215B, (507) 457-5272

Web Address: http://bio.winona.msus.edu/biohp/acad_deg.htm

Dr. David Essar, Advisor (Biology)

Pasteur Hall, Room 312A, (507) 457-5291

Dr. Bruce A. Svungen, Advisor (Chemistry)

Web Address: <http://phil.winona.msus.edu/chemistry/premed.htm>

With few exceptions, admission into a medical school requires a bachelor's degree. Each pre-medicine 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 two-year program at Duluth, Minn., as well as the majority of medical schools in the U.S. These same requirements are applicable to osteopathic schools.

Pre-medical students should seek the advice of a pre-med advisor and should consult the 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 into medical school. MCAT application and AMCAS packets are available through the pre-med advisors.

Recommended Courses

English, Chemistry and Biology sequences should be taken during the first year of college.

ENG * 111 College Reading and Writing (4 s.h.)

BIO *241, *242 Principles of Biology I, II (8 s.h.)

MATH * 150, *155 Mathematics for the Earth and Life Sciences I, II (6 s.h.) OR MATH *160, *165 Calculus I, II (8 s.h.)

CHEM *212, *213 Principles of Chemistry I, II (8 s.h.)

CHEM 350, 351 Organic Chemistry I, II (9 s.h.)

BIO 308 Cell Biology (3 s.h.)

BIO 310 Genetics (3 s.h.)

CHEM 400, 401 Biochemistry I, II (7 s.h.)

CHEM 425 Analytical Chemistry (4 s.h.)

PHYS *201, 202 General Physics I, II (8 s.h.) OR Physics 221, 222 University Physics I, II (8 s.h.)
PSY *210 General Psychology (3 s.h.)
PSY 250 Developmental Psychology (3 s.h.)
300-400 level Humanities (3 s.h.)
300-400 level Psychology (3 s.h.)

* Course may be used to satisfy certain General Education requirement

Other Courses To Complete Required Credit

Consult with your advisor for those courses necessary to complete a B.S. or B.A. degree.

Pre-Mortuary Science

Pasteur Hall, Room 219

Web Address: http://bio.winona.msus.edu/biohp/acad_deg.htm

Dr. Frances Ragsdale, Advisor

The course of study is designed according to the graduate school chosen by the student. All applicants must have completed at least two years of college work.

Pre-Optometry

Pasteur Hall, Room 219

Dr. Frances Ragsdale, Advisor

The course of study is designed according to the graduate school chosen by the student. All applicants must have completed at least three years of college work. The Optometry Admissions Test is required for admission to a professional optometry school. This test is usually given in February and October. Most pre-optometry students follow the pre-medical curriculum with a major in Biology, either the Allied Health Option or the Cell and Molecular Option. Students should meet early with an advisor to plan their programs of courses.

Pre-Pharmacy

Pasteur Hall, Room 312B, (507) 457-2476

Dr. Thomas W. Nalli, Advisor

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 pre-pharmacy advisor and respective catalogs.

BIOLOGY - 8 or 11 s.h.

For the University of Minnesota-Twin Cities

BIO 201 Human Anatomy (4)

BIO 209 Microbiology (3)

BIO 241 Principles of Biology I (4)

OR

For the University of Wisconsin-Madison

BIO 241 Principles of Biology I (4)

BIO 242 Principles of Biology II (4)

CHEMISTRY - 17 s.h.

CHEM 212 Principles of Chemistry I (4)

CHEM 213 Principles of Chemistry II (4)

CHEM 350 Principles of Organic Chemistry I (4)

CHEM 351 Principles of Organic Chemistry II (5)

MATHEMATICS - 4 s.h.

MATH 160 Calculus I (4)

PHYSICS - 8 s.h.

PHYS 201 General Physics I (4)

PHYS 202 General Physics II (4)

ENGLISH - 7 s.h.

ENG 111 College Reading and Writing (4)

ENG 210 Advanced Expository Writing (3)

COMMUNICATION STUDIES - 3 s.h.

COMS 191 Fundamentals of Speech (3)

ECONOMICS - 3 s.h.

ECON 201 Principles of Microeconomics (3)

PSYCHOLOGY - 3 s.h.

PSY 210 General Psychology (3)

SOCIOLOGY - 3 s.h.

SOC 150 Human Society (3)

Additional elective courses must be chosen from the social sciences and the humanities. See the advisor for recommendations on these electives. Physics 221 and 222 may be substituted for 201 and 202. Students not meeting the prerequisites for Mathematics 160 will have to take additional lower-level math courses. Students exempted from English 111 must elect higher-level English courses. Biology 409 may be substituted for 209. A 3 S.H. course in ethnic studies will be required. See the advisor for PCAT and pharmacy career information.

Pre-Physical Therapy

Pasteur Hall, Room 215F, (507) 457-5271

Web Address: http://bio.winona.msus.edu/biohp/acad_deg.htm

Dr. Edward Thompson, Advisor

With few exceptions, admission into a physical therapy school requires a bachelor's degree. Each pre-physical therapy student should therefore choose an area in which to major that provides a background of skills and competencies which allow application to and successful admission into a Physical Therapy Program upon graduation from WSU.

Admission to a master's-level physical therapy program is very competitive and the minimum requirements are:

- 1) 12 s.h. of Biology, including a complete introductory course in the principles of Biology or Zoology, and advanced coursework in Biology or Zoology which builds upon the introductory courses,
- 2) 8 s.h. of Chemistry, consisting of a complete introductory course,
- 3) 8 s.h. of Physics, consisting of a complete introductory course,
- 4) 6 s.h. of Psychology,
- 5) 3 s.h. of Human Physiology, including systematic human physiology,
- 6) 3 s.h. of Statistics, at the college level,
- 7) 3 s.h. of Mathematics, at the level of college trigonometry or higher,
- 8) a GPA of 3.5 or better, a GRE (general test) of 1000 (verbal and quantitative) and
- 9) a genuine interest in people and the health of others, especially as shown by about six months involvement (volunteer or otherwise) in patient care and/or research at a health care facility.

Many physical therapy schools require at least three upper-division courses in Biology such as Histology, Endocrinology, Genetics, Microbiology, Parasitology, Molecular Biology, Neuroscience, Cell Biology, Cell Physiology and Embryology. Some physical therapy schools also require additional upper-level courses such as Calculus, Organic Chemistry and Biochemistry. All of these upper-level science courses have chemistry or biology prerequisites. It is expected that applicants will exceed the minimum admission requirements in several of the above subject categories. It is strongly suggested that students consider career-related courses such as Biomechanics, Kinesiology, Exercise Physiology, Pharmacology and Pathophysiology whenever possible.

Most pre-physical therapy students at WSU major in the Biology Allied Health Option which is described under the Biology Department's program descriptions elsewhere in this catalog. This Biology major does not require a minor and 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 physical therapy programs.

Students who are interested in entering a master's-level physical therapy program after graduation should meet soon after arrival on campus with Dr. Thompson, 215F Pasteur Hall, WSU, Winona, MN 55987 to plan their programs of study.

Students majoring in pre-physical therapy are encouraged to apply to the physical therapy program of their choice early in their senior year. Since most of the physical therapy programs are graduate level programs, students must have achieved a grade point average of 3.0 on the 4.0 system to be eligible to apply. In addition, most of the programs require that students present proof of having taken the Graduate Record Examination (G.R.E.) in order to be considered for entry into their program. Students should see their advisor for assistance in arranging to take this examination. Many WSU students tend to favor the Physical Therapy Programs offered by Northwestern University, Chicago IL. University of Osteopathic Medicine and Health Sciences, Des Moines IA Chicago Medical School, Chicago, IL and Wichita State University, Wichita KS. The faculty at these institutions are familiar with the quality of student from this University and student selections have been highly favorable.

Students also should be aware that the WSU Department of Health and Human Performance provides additional opportunities for pre-physical therapy majors and for those students who decide to pursue School and Community Health, Exercise Science, Worksite Health Promotion, Cardiac Rehabilitation or an Athletic Trainer certificate. Dr. Gary Castello, Department of Health and Human Performance, WSU, Winona, MN 55987 has a Ph.D. in Biological Science and a M.S. in Exercise Physiology, and is available to advise students on issues of careers and career choices in allied health.

Pre-Physician Assistant

Pasteur Hall, Room 215B, (507) 457-5272

Web Address: http://bio.winona.msus.edu/biohp/acad_deg.htm

Dr. David Essar, Advisor

The course of study is designed according to the graduate school chosen by the student. Most pre-physician assistant students follow the pre-medical curriculum with a major in Biology, either the Allied Health Option or the Cell and Molecular Option. Students should meet early with an advisor to plan their programs of courses.

Pre-Podiatry

Pasteur Hall, Room 215F, (507) 457-5271

Web Address: http://bio.winona.msus.edu/biohp/acad_deg.htm

Dr. Edward Thompson, Advisor

The course of study is designed according to the graduate school chosen by the student. Most pre-podiatry students follow the pre-medical curriculum with a major in Biology, either the Allied Health Option or the Cell and Molecular Option. Students should meet early with an advisor to plan their programs of courses.

Pre-Veterinary Medicine

Pasteur Hall, Room 232, (507) 457-5855

Web Address: http://bio.winona.msus.edu/biohp/acad_deg.htm

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 years of 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 entry requirements of their chosen veterinary schools. Students should meet early with an advisor to plan their programs of courses.

Required Courses

These courses fulfill the entrance requirements of the University of Minnesota School of Veterinary Medicine. These courses do not constitute a degree. For degree requirements, see the Biology Program or Chemistry Program listings.

BIOL *241, *242 Principles of Biology I, II (8 s.h.)

BIOL 310 Genetics (4 s.h.)

BIOL 319 Vertebrate Biology (4 s.h.)
BIOL 409 General Microbiology (4 s.h.)
CHEM *212, *213 Principles of Chemistry I, II (8 s.h.)
CHEM 350, 351 Organic Chemistry I, II (9 s.h.)
CHEM 400 Biochemistry (4 s.h.)
CMST *191 Fundamentals of Speech Communications (3 s.h.)
ENG *111 College Reading and Writing (4 s.h.)
MATH *150, *155 Mathematics for the Earth and Life Sciences I, II (6 s.h.)
PHYS *201, 202 General Physics I, II (8 s.h.)

* Course may be used to satisfy certain General Education requirement

Electives

STAT 110 Fundamentals of Statistics (3 s.h.) is recommended by the University of Minnesota Veterinary School. Sixteen (16) elective credits to be chosen from the following areas with no more than eight (8) credits or two courses from any one area: Economics (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 the University of Minnesota College of Veterinary Medicine Catalog).

PROFESSIONAL STUDIES

Somsen Hall, Room 109, (507) 457-5080

See Interdisciplinary Programs for more information about the Major in Professional Studies.

PSYCHOLOGY

Phelps Hall, Room 231, (507) 457-5435

K. Williams, (Chairperson), Deyo, Fried, Johanson, Kesler, Lane, Marmolejo, Miene, Sefkow, J. Williams.

Faculty

Richard A. Deyo, Professor; B.S., Viterbo College; M.A., Ph.D., Bowling Green State University; 1990 -
Carrie Fried, Assistant Professor; B.S., Iowa State University; M.S., Ph.D., University of California; 1999 -
John Johanson, Assistant Professor; B.S., University of South Dakota; M.A., University of Nebraska-Omaha; Ph.D., University of Nebraska-Lincoln; 1999 -
Mary S. Kesler, Professor; B.M.Ed., M.A., Ph.D., University of Kansas-Lawrence; 1987 -
Kristi Lane, Professor; B.A., University of North Carolina; M.A., Ph.D., George Peabody College of Vanderbilt University; 1980 -
Gloria Marmolejo, Associate Professor; B.S. National Autonomous University of Mexico; M.S., Ph.D. University of Wisconsin-Madison, 1994 -
Peter K. Miene, Associate Professor; B.A., University of Kansas-Lawrence; Ph.D., University of Minnesota-Twin Cities; 1992 -
Susan B. Sefkow, Professor; B.A., Yale University; M.S., Ph.D., University of Massachusetts-Amherst; 1978 -
Janette P. Williams, Professor; B.A., Northwestern University; M.A., Ph.D., University of Illinois; 1987 -
Kerry G. Williams, Professor; B.Sc., University of Washington; M.A., Ph.D., University of Illinois; 1981 -

Psychology is the science of behavior, including mental processes. 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, they plan to pursue careers in fields which emphasize interpersonal skills or they want to better understand themselves as well as others.

Those majoring in Psychology can 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. Students' career and/or graduate school opportunities are greatly enhanced by such multi-disciplinary programs of study. Option B is available for those preferring to concentrate their studies in Psychology for more in-depth experience.

Students must consult with a Psychology Department advisor to plan a major in Psychology. All Psychology majors are strongly encouraged to take Statistics and Experimental Psychology as early as possible in their educational career. The particular elective courses students take, along with their sequencing, depends upon their background, special interests and goals.

Career Options

Students majoring in Psychology who do not plan on graduate study receive a liberal arts education and are qualified for a wide variety of vocations which involve an understanding of human behavior including careers in human services, technical and/or laboratory work and business.

Students can prepare for graduate study in Psychology by completing either option A or B. An advanced degree in Psychology allows the pursuit of 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

All courses in the major and minor must be taken on a Grade Only basis except Psychology 400. Courses offered on a Pass/No Credit basis are designated in their course descriptions.

Course Repetition Policy

Students cannot enroll in any Psychology course more than three times whether due to official withdrawal (W) or a grade less than "C."

Additional Graduation Requirements

A minimum WSU overall cumulative GPA of 2.50 is required for graduation with a Psychology Major.

A minimum GPA of 2.50 is required of majors in all grade only Psychology courses.

Individual course grades lower than a "C" do not count toward either Psychology Major.

Students cannot substitute a first- or second-year course (100 or 200 level or equivalent) taken at another school for a similar course offered at the junior or senior level (300 or 400) at WSU.

No more than 3 s.h. credits of General Introductory psychology transferred to WSU can be credited toward a Psychology Major or Minor.

No more than 6 s.h. credits in developmental psychology (child, adolescent, adult, lifespan, etc.) transferred to WSU can be credited toward a Psychology Major or Minor.

Transfer students must complete at least 18 s.h. in Psychology at WSU for the Option A Major, 25 s.h. for the Option B Major, and 12 s.h. for the Psychology Minor.

No more than 6 s.h. credits of Psychology 400 may count toward a Psychology Major and 3 s.h. toward a Psychology Minor.

Rochester Center

The Option A Psychology Major and the Psychology Minor are available through the 2+2 Program at the Rochester Center.

Honors in Psychology

Students have the option of completing additional requirements in order to graduate with Honors in Psychology. Students completing the requirements have it noted on their transcript along with the title of their thesis. Students are responsible for applying to the Department Honors Program by submitting a formal proposal to the Department through their academic advisor and meeting all the Departmental requirements for graduation with Honors in Psychology. Requirements for Honors in Psychology are as follows. Students must:

1. Have a declared major in Psychology.
2. Have and maintain a minimum GPA of 3.50 (magna cum laude) overall and in Psychology at the time they submit their proposal.
3. Have successfully completed at least 20 s.h. in Psychology, including Psychology 308, before they submit a proposal.
4. Identify a full-time WSU Psychology Department faculty member willing to serve as a research advisor. No individual faculty member is required to participate in this program. It is the student's obligation to obtain the permission 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 before students complete 96 of the 128 semester hour credits or equivalent required for graduation. That is, there must be at least one academic year available in which to complete the Honors Thesis. Honors Theses cannot involve collaborative student projects; they must be individual efforts. The Psychology Department establishes an Honors Research Review Committee composed of a minimum of two full-time faculty members who volunteer to serve. The committee meets as necessary to consider pending proposals.
6. Work under the direction of a research advisor to complete, in a timely fashion, a project satisfactory to the 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, students cannot meet this requirement, students must then 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. Students are encouraged, though not required, to construct a poster presentation of the research for display in the department.

B.A. MAJOR - PSYCHOLOGY:

OPTION A

35 S.H. (Minor Required)

REQUIRED COURSES (17 S.H.)

- 210 General Psychology (3)
- 231 Statistics (3) OR
- 110 STAT Fundamentals of Statistics (3) OR
- 210 STAT Statistics OR
- 305 STAT Biometry (3)
- 308 Experimental Psychology (5)
- 350 Psychological Testing and Measurement (3)
- 434 History and Systems of Psychology (3)

ELECTIVES (18 S.H.)

Psychology electives to total at least 18 s.h.

B.A. MAJOR - PSYCHOLOGY:

OPTION B

49-50 S.H. (No Minor Required)

CORE REQUIRED COURSES (17 S.H.)

- 210 General Psychology (3)
- 231 Statistics (3) OR
- 110 STAT Fundamentals of Statistics (3) OR
- 210 STAT Statistics OR
- 305 STAT Biometry (3)
- 308 Experimental Psychology (5)

- 350 Psychological Testing and Measurement (3)
- 434 History and Systems of Psychology (3)

FOUNDATION/DISTRIBUTION REQUIREMENTS (12-13 S.H.)

Cluster A: Select at least two of the following (6 s.h.):

- 250 Developmental Psychology (3)
- 305 Theories of Personality (3)
- 325 Social Psychology (3)
- 420 Abnormal Psychology (3)

Cluster B: Select at least two of the following (6-7 s.h.):

- 301 Introduction to Learning (3)
- 303 Brain and Behavior (3)
- 369 Cognitive Psychology (3 or 4)
- 410 Sensation and Perception (3)

ELECTIVES (15 S.H.)

Psychology electives to total at least 15 s.h. These may include courses from Clusters A and B taken beyond the above requirements.

ADDITIONAL REQUIREMENTS (5-6 S.H.)

Courses meeting the following requirements are listed below. Students having not earned at least a "B" in ENG 111 must select an additional English course from those listed. Additionally, they must complete 2-3 s.h. in mathematics/statistics OR 3 s.h. in computer and information sciences. Those earning an "A" or "B" in ENG 111 may select coursework from any two of the three designated departments for a total of 5-6 s.h.

English (3 s.h.)

An approved course in advanced writing such as English 210, 314, 439, 449, etc.

Mathematics and Statistics (2-3 s.h.)

One or two approved courses in mathematics or advanced statistics such as MATH 110*, 120*, 140*, 160*, 210, etc. or STAT 115, 255, 289, 310, 330, 350, 355, 360, 365, etc.

Computer and Information Sciences (3-4 s.h.)

An approved computer science course such as CS 115*, 130*, 150*, 231, 234, etc.

* Course may be used to satisfy certain General Education requirement

B.A. MINOR - PSYCHOLOGY

21 S.H.

REQUIRED COURSES (3 S.H.)

* 210 General Psychology (3)

ELECTIVES (18 S.H.)

Psychology electives to total at least 18 s.h.

Psychology Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the majors and minor must be taken on a Grade Only basis except teaching assistantships and field experiences (Psychology 400). The P/NC option is available to non-majors/minors unless otherwise noted.

210 - General Psychology-3 S.H.

A broad introduction to psychology: the science of human behavior and mental processes, focusing on its questions, methods, research findings, theories and applications. Offered each semester.

231 - Statistics-3 S.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: PSY 210. Offered each semester. Grade only.

250 - Developmental Psychology-3 S.H.

A survey of the patterns of change and stability in human behavior

from conception to death. Theories and research pertaining to growth and change in physical, cognitive, personality and social functioning across the life span are examined.

Prerequisite: PSY 210. Offered each semester. Grade only.

275 - Psychology of Women-3 or 4 S.H.

A survey of scientific research into the nature of female behavior contrasted with male, including implications for modern living. Topics include gender stereotypes, gender development/typing, gender comparisons in social, personality, and cognitive areas, education and work, love relationships, sexuality, mental and physical health issues and violence. Prerequisite: PSY 210. May be offered with a discussion/writing lab (4 S.H.) or without (3 S.H.). Offered each semester.

280 - Persuasion and Social Influence - 3 S.H.

A survey of theory, research, and application in the areas of persuasion and social influence. Theories include heuristics and cognitive models of persuasion, group influence effects, and motivational theories. Areas of application include mass media, politics, and social movements. Prerequisite: PSY 210. Offered yearly. Grade only

298 - Health Psychology-3 S.H.

Explores psychological factors in optimal maintenance of health, treatment of illness and recovery from or adjustment to ongoing health problems. Theories, research methods and clinical applications from the biopsychosocial context as applied to health psychology are examined. Prerequisite: PSY 210. Offered each semester.

301 - Introduction to Learning -3 S.H.

Behavioral, associative and cognitive theories of learning and memory are reviewed. Topics include reinforcement, punishment, extinction, generalization, discrimination, observational learning and motivation. Prerequisite: PSY 210. Offered yearly. Grade only.

303 - Brain and Behavior-3 S.H.

A survey of how neuron physiology directs behavior. Topics include a discussion of functional neuroanatomy as applied to the study of emotion, consciousness, social behavior, feeding, and memory, and a discussion of neurological and psychological disorders, and the diseases of aging. Prerequisite: PSY 210. Offered yearly. Grade only.

305 - Theories of Personality-3 S.H.

A survey of major theoretical perspectives. Personality theory, research and assessment is considered from a variety of viewpoints including the psychodynamic, behavioral, dispositional and phenomenological perspectives. Prerequisite: PSY 210. Offered each semester. Grade only.

308 - Experimental Psychology-5 S.H.

Introduction to scientific methods and research techniques in psychology. Laboratory experiences are included. Prerequisites: PSY 210, PSY 231 or equivalent. Offered each semester. Grade only.

325 - Social Psychology-3 S.H.

Overview of theories and research in social psychology. Topics include person perception, the self, stereotyping and prejudice, attitudes and persuasion, interpersonal relationships, and group behavior. Prerequisite: PSY 210. Offered each semester. Grade only.

330 - Psychology and the Law-3 S.H.

Psychological analysis of the legal system, focusing on perception, memory, and decision-making processes by individuals in the system. Topics include forensic psychology, eyewitness and expert testimony, jury deliberations, and current topics. Prerequisite: PSY 210. Offered yearly. Grade only.

335 - Human Factors Psychology- 3 S.H.

An examination of psychological principles applied to the relationship between technology and human capabilities in the design and operation of both human-machine systems and environments in which humans live, work, and play. Specific topics include human perceptual and motor capabilities, machine displays and controls, and workspace design. Prerequisite: PSY 210. Offered yearly. Grade only.

350 - Psychological Testing and Measurement-3 S.H.

Principles and practice of psychological measurement. Topics include basic statistical concepts; reliability and validity; widely used ability, personality, and interest tests and their application in educational, employment, clinical and basic research settings; social and legal issues arising from test use. Prerequisites: PSY 210, PSY 231 or equivalent. Offered each semester. Grade only.

360 - Personnel Psychology -3 S.H.

Analysis and review of applied psychology in the field of work including personnel selection, performance evaluation, training,

work-team dynamics, supervisory leadership, employee motivation, human engineering, fatigue, safety and physical working conditions. Prerequisite: PSY 210. Offered yearly. Grade only.

369 - Cognitive Psychology-3 or 4 S.H.

Contemporary scientific approaches to understanding human mental activity - the acquisition, storage, retrieval and use of knowledge. Topics include pattern recognition, attention, memory, concept formation, language, imagery, reasoning, problem-solving, and decision-making. Both theory and applications to other disciplines and everyday life are addressed. Prerequisite: PSY 210. May be offered with a lab (4 S.H.) or without (3 S.H.). Offered yearly. Grade only.

400 - Independent Study or Research-1-3 S.H.

Independent study or research for credit under the guidance of a faculty member with prior permission. Can be repeated. Grade only. Teaching assistantships and field experience may be available but only on a P/NC basis. Prerequisites: PSY 210 and as determined by the instructor. Offered each semester. Only 6 s.h. credits of Psychology 400 may count toward a Psychology Major. Only 3 s.h. may count toward the Psychology Minor.

408 - Advanced Experimental Psychology-3 S.H.

Theory and methods of advanced research techniques in psychology. Individual student research projects are conducted. Prerequisites: PSY 210 and PSY 231 or equivalent and PSY 308. Offered yearly. Grade only.

410 - Sensation and Perception-3 S.H.

A careful consideration of how we come to know about our world through our senses. Emphasis on vision and audition, including clinical aspects. Also addresses taste, smell, skin senses including pain, orientation and time perception. Both theory and applications to other disciplines and everyday life are addressed. Prerequisite: PSY 210. Offered yearly. Grade only.

418 - Behavioral Pharmacology-3 S.H.

An analysis of the psychological, sociological and physiological factors related to pharmacological treatment of psychological disorders and chemical dependency. Additionally, a discussion of traditional medicine and drug development is included. This course does not meet teacher certification. It is designed for non-education majors. Prerequisites: PSY 210 and PSY 303. Offered every two years. Grade only.

420 - Abnormal Psychology-3 S.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. Prerequisites: PSY 210 and 3 additional s.h. (or 4 q.h.) in Psychology. Offered each semester. Grade only.

421 - Cognitive Behavior Therapy-3 S.H.

Current principles, research methods and therapeutic interventions for behavioral change are discussed as applied to the behavior of individuals and groups in mental health settings, schools, hospitals and interpersonal situations. Prerequisites: PSY 210 and PSY 420. Offered every two years. Grade only.

423 - Psychopathology of Childhood-3 S.H.

Examines classification of disorders in children and adolescents. Core topics include mood, anxiety and psychotic disorders. Selected topics may include eating disorders, psychosomatic disorders,

autism, psychosis, phobias, developmental deviations. Therapeutic issues are discussed. Prerequisites: PSY 210, PSY 250 and PSY 420. Offered yearly. Grade only.

424 - Women and Mental Health-3 S.H.

Diagnosis and treatment is discussed with mood disorders as a central focus, followed by themes in therapy selected from topics such as anger, autonomy, identity, integration of marriage and career, lesbianism, poverty, consciousness raising and gender role development. Traditional and alternative therapeutic approaches are discussed in light of socioeconomic factors affecting women. Current issues related to women's needs are addressed. Prerequisites: PSY 210 and 6 s.h. (or 8 q.h.) in Psychology or PSY 210 and PSY 275 (or WOMS 148) or instructor's permission. Offered yearly. Grade only.

425 - Organizational Psychology-3 S.H.

An analytical survey of theory and research in organizational socialization, decision-making, organization-individual interaction, motivation, leadership and the use of power and authority, communication, organizational change and development, and the evaluation of organizational effectiveness. Prerequisite: PSY 210. Offered yearly. Grade only.

431 - Counseling and Clinical Psychology-3 S.H.

Issues of clinical and counseling practice include ethics, informed consent, malpractice, confidentiality and duty to warn, special populations, and personal characteristics of professionals. Practice in interviewing strategies as part of clinical assessment is included. Prerequisites: PSY 210 and PSY 420. Offered yearly. Grade only.

433 - Neuroscience-4 S.H.

A survey of contemporary theories and research methods in neuroscience. Topics include a discussion of functional neuroanatomy as applied to the regulation of homeostasis, motor systems, cognitive processing and a discussion of advanced topics in the areas of motor, neurological and psychological disorders. Lecture and laboratory. Prerequisites: 9 s.h. (or 12 q.h.) in Psychology including PSY 303 or 9 s.h. (or 12 q.h.) in Biology. Offered yearly. Grade only.

434 - History and Systems of Psychology-3 S.H.

A historical overview of psychology and its antecedents are considered to provide a richer understanding of contemporary psychology as an evolving, conceptual system. Prerequisite for non-majors: minimum of 12 s.h. in Psychology. Prerequisites for majors: PSY 210 and PSY 231 or equivalent and PSY 308 and a minimum of two other courses in Psychology (6 s.h. or 8 q.h.). Majors are encouraged to complete all other core requirements before registering in PSY 434. Offered each semester. Grade only.

435 - Psychology of Adulthood and Aging-3 S.H.

Current theory and research dealing with psychological development from early adulthood through old age. Topics include change and continuity in intellectual and personality functioning, and psychological consequences of marriage, parenthood, work, retirement, widowhood and declining health. Prerequisites: PSY 210 and PSY 250 or instructor's permission. Offered biannually. Grade only.

498 - Seminar in Psychology-3 S.H.

A variable-topic course involving in-depth study of a specialized subject area within psychology. Can be repeated with different topics. Prerequisites: PSY 210 and as determined by the instructor. Offered yearly. Grade only.

SOCIAL SCIENCE/HISTORY

Minne Hall, Room 212, (507) 457-5400
Alexander Yard, Program Director
Director email: ayard@vax2.winona.msus.edu

See Interdisciplinary Programs for more information about the Major in Social Science/History (Teaching).

SOCIOLOGY/SOCIAL WORK

Minne Hall, Room 228, (507) 457-5420

Schwartz (Chairperson), Aldrich, Bublitz, Burdick, Collins (Co-director, Social Work) Dachelet, Ellenbecker, Faruque, Holmgren, Madland (Co-director, Social Work), Norman, Reynolds, Stevens.

Faculty

Brian Aldrich, Professor; A.B., Lewis and Clark College; M.S., Ph.D., University of Wisconsin-Madison; 1976 -

Ervin G. Bublitz, Professor; B.A., St. Mary's College (Minnesota); B.S., M.S., Winona State University; Ph.D., University of Utah; 1970 -

John E. Burdick, Professor; B.A., Allegheny College; M.S.W., State University of New York-Buffalo; 1984 -

John W. Collins, Associate Professor; B.A., Tarkio College, M.S., University of Minnesota; Ph.D., Saint Louis University; 1993

Helen Dachelet, Assistant Professor; B.A. in Psychology, Winona State University; B.S. in Paralegal, Winona State University; M.S. in Community Counseling, Winona State University; Psy.D., University of St. Thomas; 1996 -

Mickey Ellenbecker, Associate Professor; B.A., Mankato State University; M.S.W., University of Wisconsin-Madison; 1976 -

Cathy Jo Faruque, Assistant Professor; B.S., Winona State University; M.S.W., San Diego State University; Ph.D., Southern California University for Professional Studies, 1997 -

Ellen Holmgren, Assistant Professor; B.S.W., Winona State University; M.S.W., University of Minnesota; 1996 -

Carole Madland, Associate Professor; M.S.S.W., University of Tennessee-Nashville; B.A., Ph.D., Washington University, St. Louis; 1991 -

J. Mark Norman, Assistant Professor; B.S., St. Cloud State University; M.S. St. Cloud State University; Ph.D. South Dakota State University; 1996 -

James Reynolds, Professor; B.S., Winona State University; M.A., University of North Dakota; 1969 -

R. Stephen Schwartz, Professor; B.S., M.S., University of Oklahoma; Post-Graduate Certificate, University of Zambia (University of London, external); Ph.D., The University of Iowa; 1973 -

Ronald A. Stevens, Professor; Ph.B., M.S., University of North Dakota; 1968 -

Sociology, Social Work and Criminal Justice students who complete one of these programs are well prepared for professional employment in administrative and management positions in both the private and public sectors of business and government, law enforcement and corrections, social welfare and casework, and graduate school.

Pass/No Credit Courses

All courses must be taken for grade only except field experience and internship. Only grades of "C" or better in courses offered in the Department can be used to meet major and minor requirements.

B.A. MAJOR - SOCIOLOGY

43 S.H. (Minor Required)

Sociology examines how people's 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 people's 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; (5) to develop an understanding of the nature and effects of social inequality; and (6) to develop career and/or graduate school readiness.

The B.A. Sociology program not only contributes to the overall liberal arts education of students, it also teaches valuable analytical skills that include understanding and appreciating the experiences of diverse groups in society, identifying the various causes of social problems, and the application of quantitative and qualitative reasoning. These skills prepare students for a wide variety of careers including business, government, human services, criminal justice, law, and public and private research. The program emphasizes developing these skills through the integration of classroom study with supervised field instruction in a wide variety of placements.

Admission Requirements

Students wishing to major in Sociology must apply for admission by meeting the following requirements:

1. complete a minimum of 32 semester hours of coursework with a minimum GPA of 2.2 in the B.A. Sociology foundation courses (or transfer equivalent courses) and no grade less than a "C" prior to admission.
2. complete the program admission application form (including one letter of reference).
3. complete the program admission diagnostic assessment instrument.

Retention and Graduation Requirements

Retention and graduation from the program requires meeting the following requirements:

1. maintain a minimum, cumulative GPA of 2.5 in all B.A. Sociology courses taken at WSU.
2. maintain and complete student portfolio prior to graduation and at a level acceptable to student's advisor
3. participate in an exit interview and student satisfaction survey prior to graduation.
4. complete the program graduation diagnostic assessment instrument.

FOUNDATION COURSES TO BE COMPLETED PRIOR TO ADMISSION:

English 111, College Reading and Writing

Sociology 150, Human Society

Communication 191, Fundamentals of Speech Communication

Statistics 110, Fundamentals of Statistics and 115 Laboratory in Statistics OR

Psychology 231, Statistics

Sociology 376, Introduction to Social Research (Prerequisite:

Statistics 110 and 115 or Psychology 231)

REQUIRED COURSES (21-22 S.H.)

Sociology (18 s.h.)

- 150 Human Society (3)
- 110 STAT Fundamentals of Statistics AND
- 115 STAT Laboratory in Statistics OR
- 231 PSY Statistics
- 376 Introduction to Social Research (3)
- 377 Theory & Methods in Sociology (3)
- 378 Lab in Social Research (3)
- 385/460 Field Experience/Internship (3)
- 499 Senior Seminar (3)

ELECTIVES (21-22 S.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 student's chosen areas 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 (6) s.h. of field experience or internship may be counted toward the major; an additional 6 s.h. may be taken and counted as electives toward graduation.

**B.S. MAJOR - SOCIOLOGY:
CRIMINAL JUSTICE**

62-63 S.H.

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 "Criminal Justice Student Handbook" from the Sociology/Social Work Office in 228 Minne Hall. The handbook includes specific requirements and application procedures. In addition to completing an application form, submitting three letters of reference and participating in an admissions interview, each student is responsible for meeting the following requirements:

Program Course Prerequisites

Completion of a minimum of 32 semester hours of coursework with a minimum cumulative GPA of 2.00 for all courses taken at WSU.

Completion of ENG 111 with no grade lower than a "C"

Completion of the five foundation courses with a minimum GPA of 2.60 for the five courses with a grade no lower than a "C"

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 retention requirements listed below:

Students must maintain a 2.50 cumulative GPA for all courses taken within the Criminal Justice Program at WSU

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.

FOUNDATION COURSES (15 S.H.)

It is recommended that students complete all foundation courses within the first two years at WSU:

Sociology (6 s.h.)

- 150 Human Society (3)
- 210 Intro to Criminal Justice (3)

Political Science (6 s.h.)

- * 120 Introduction to American Politics (3)

- 228 Public Service (3)
- Computer Science (3 s.h.)**
- * 115 Personal Computer Use (3)

CORE COURSES (18-19 S.H.)

- 231 PSY Statistics (3) OR
- * 110 STAT Fundamentals of Statistics AND
- 115 STAT Laboratory Statistics (1)
- 314 Juvenile Delinquency (3)
- 315 Criminology (3)
- 376 Introduction to Social Research (3)
- 418 Criminal Law & Procedure (3)
- 423 Race Relations & Minority Groups (3)

* Course may be used to satisfy certain General Education requirement

TRACK SPECIALIZATION

** Upon application to the Criminal Justice Program, students select one or both of the specialization tracks. If both tracks are selected, the student must take two separate internships: one in corrections and one in law enforcement.

**LAW ENFORCEMENT OPTION - SCJL
(29 S.H.)**

REQUIRED COURSES (21 S.H.)

- 404 Law Enforcement Communication (3)
- 417 Operations & Procedures in Law Enforcement (3)
- 491 Crime Prevention and Community Policing (3)
- ** 461 Criminal Justice Internship, Law Enforcement (12)

ELECTIVES (8 S.H.)

8 s.h. at the 300 or 400 level within the Department
420 Minnesota Criminal Code & POST Review (3) (Required for POST certification in Minnesota. Students seeking peace officer licensure in the state of Minnesota must successfully complete 420, plus the summer skills component. Only students seeking licensure will be admitted.)

**CORRECTIONS OPTION - SCJC
(29 S.H.)**

REQUIRED COURSES (24 S.H.)

- 355 Corrections (3)
- 405 Models and Strategies of Intervention (3)
- 406 Probation and Parole (3)
- 407 Offender Assessment (3)
- ** 461 Criminal Justice Internship, Corrections (12)

ELECTIVES (5 S.H.)

5 s.h. at the 300 or 400 level within the Department
NOTE: Law violations may limit employment opportunities (consult with your advisor).

B.S. MAJOR - SOCIAL WORK

(CSWE Accredited)
64 S.H. (No Minor Required)

This BSW Program prepares 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 packet is included in the Social Work Handbook available in the WSU bookstore.

Required foundation courses are to be completed prior to application for the professional Social Work Program. Students apply during Social Work 365. Students who have not met the program requirements may be accepted conditionally. Students, however, may not continue on to Practice II, SW 385, until all requirements are met.

Admission

Social Work faculty are available to assist prospective social workers with this process. First-year and sophomore students interested in the Social Work Major are advised to become well informed regarding the courses required for admission to the Social Work Program. Admission into the program is limited to a specific number of students based on satisfactory completion of required courses. The prerequisite for SW 365 is SW 340 and the satisfactory completion of all foundation courses. The prerequisite for SW 385 is the student's notification of admission into the professional Social Work Program from the faculty.

Admission and Academic Standards

Admission

Students must have a "C" or better and an overall GPA of 2.5 in the following courses: all five foundation courses, ENG 111, CMST 191 and a satisfactory evaluation in SW 350.

Academic Standards

Students must have a "C" or better and an overall GPA of 2.5 in all courses considered for admission. In addition, students must also have a 2.5 GPA and a "C" or better in all courses required within the Department.

Student Association of Social Workers (SASW)

Membership offers students the opportunity to organize and act on social issues of concern to students at the local level as well as the state and national levels. In addition SASW provides a social network for the students. Membership is strongly encouraged.

REQUIRED FOUNDATION COURSES (18 S.H.)

Social Sciences (15 s.h.)

Psychology (6 s.h.)

210 General Psychology (3)

250 Developmental Psychology (3)

Sociology (3 s.h.)

150 Human Society (3)

Social Work (6 s.h.)

340 Intro to Social Work (3)

350 Field Experience (3)

Natural Sciences

Biology (3 s.h.)

* 117 Human Biology (3)

REQUIRED COURSES (46 S.H.)

Statistics (3 s.h.)

* STAT 110 Fundamentals of Statistics (3) OR
PSY 231 Statistics (3)

Research (3 s.h.)

SOC 376 Introduction to Social Research (3)

Minorities (3 s.h.)

SOC 423 Race Relations (3)

Sociology/Social Work (3 s.h.)

300- or 400-level Departmental elective (3)

Social Work (34 s.h.)

365 Social Work Practice I – Ethics and Interviewing (3)

370 Human Behavior in the Social Environment (3)

380 Social Welfare Policy I (3)

385 Social Work Practice II – Families and Groups (3)

400 Social Work Practicum Preparation (1)

410 Analysis of Social Welfare Policy II (3)

415 Social Work Practice III – Organizations and Communities (3)

475 Social Work Senior Practicum (12)

480 Senior Seminar in Social Work (3)

NOTE: SW 475 is 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 24 s.h. of practicum.

* Course may be used to satisfy certain General Education requirement

SCHOOL SOCIAL WORK LICENSURE REQUIREMENTS

DEPARTMENT OF EDUCATION

(Applicable until September 1, 2001. After September 1, 2001 a BSW and Minnesota Social Work Licensure will suffice.)

Completion of the BSW Social Work Major plus the following:

REQUIRED COURSES (15 S.H.)

Social Work (6 s.h.)

425 Law & Social Work (3)

420 Child Welfare (3)

Special Education (3 s.h.)

400 Education of Exceptional Child/Youth (3)

Education (3 s.h.)

459 Professional Topics & Issues (3)

HHP (3 s.h.)

204 Personal & Community Health (3)

SENIOR PRACTICUM PLACEMENT

Twelve (12) 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

18 S.H.

REQUIRED COURSES (9 S.H.)

* 150 Human Society (3)

* 205 Social Interaction (3)

* 216 Social Problems (3)

ELECTIVES (9 S.H.)

Electives within the department must total 9 s.h. and be selected from 300 level or above in Sociology and/or Social Work.

* Course may be used to satisfy certain General Education requirement

B.A. MINOR - GERONTOLOGY OPTION

27 S.H.

REQUIRED COURSES (18 S.H.)

* 150 Human Society (3)

434 Medical Sociology (3)

435 Family Roles & Relationships (3)

440 Dying and Death (3)

450 Sociology of Aging (3)

385 Field Experience (3)

NOTE: 385 is required for Sociology, Social Work and all other students except Nursing students. This course is not meant as a substitute for SOC 460. Equivalency credit may be granted; see coordinator of Gerontology Minor.

ELECTIVES (9 S.H.)

Recommended electives to be selected at the 300 level or above in consultation with an advisor.

- 340 Social-Cultural Anthropology (3)
 - 350 Population Analysis (3)
 - 412 Sexuality in American Society (3)
 - 421 Urban Sociology (3)
 - 425 Social Change & Social Movements (3)
 - 431 Social Class & Power (3 s.h.)
 - 437 Sociology of Organizations (3)
 - 488 Health and Human Services Organization
- Other electives may be considered. See the coordinator of the Gerontology Minor.

* Course may be used to satisfy certain General Education requirement

Sociology and Social Work

Course Descriptions

All courses in the major, minor, options, concentrations and licenses must be taken on a Grade Only basis except Internships and Field Experiences.

Criminal Justice Course Descriptions

210 - Introduction to Criminal Justice-3 S.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. Grade only. Offered each semester.

314 - Juvenile Delinquency

Quarter Course: 414.

In-depth analysis of juvenile delinquency, its development, control, treatment and prevention. Prerequisites: SOC 150, SOC 210, SOC 315 and/or instructor's permission. Limited to 30 students. Grade only. Offered each semester.

315 - Criminology-3 S.H.

An analysis of the theory and measurement of crime. Prerequisites: SOC 150, SOC 210 and/or instructor's permission. Limited to 30 students. Grade only. Offered each semester.

355 - Corrections-3 S.H.

Quarter Course: 416.

An analysis of the systems and functions of corrections including the areas of administration of programs and security. Limited to 30 students. Prerequisite: SOC 210. Offered each semester. Grade only.

404 - Law Enforcement Communication-3 S.H.

This course is designed to introduce the student to law enforcement communication. The course provides knowledge, skills and practice in the areas of interviewing, interrogation and report writing. Prerequisites: admission to Sociology: Criminal Justice Program and instructor's permission. Limited to 25 students. Grade only. Offered each semester.

405 - Models and Strategies of Intervention-3 S.H.

An in-depth study of therapeutic methodologies and skills used in the correctional services. Special emphasis is on Reality Therapy to assist individual clients and small groups with behavioral and cognitive changes. Prerequisites: SOC 210 and/or instructor's permission. Limited to 20 students. Grade only. Offered each semester.

406 - Probation and Parole-3 S.H.

This course is designed to introduce the criminal justice student to the responsibilities of probation and parole officers. This course provides knowledge of probation and parole services, skill building in supervision of offenders and practical writing skills. Prerequisites: admission to Sociology: Criminal Justice Program and instructor's permission. Limited to 25 students. Grade only. Offered each semester.

407 - Offender Assessment and Management-3 S.H.

Quarter Course: 419.

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 Sociology: Criminal Justice Program and instructor's permission. Limited to 20 students. Grade only. Offered each semester.

417 - Operations and Procedures in Law Enforcement-3 S.H.

Operational and procedural requirements in law enforcement

including community relations, testifying and criminal investigation, the police subculture, use of force, ethics and patrol activities. Prerequisite: SOC 210 and/or instructor's permission. Limited to 30 students. Grade only. Offered each semester.

418 - Criminal Law and Procedure-3 S.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 Program, SOC 210 and/or instructor's permission. Limited to 30 students. Grade only. Offered each semester.

420 - Minnesota Criminal Code and Post Review-3 S.H.

This course deals with an analysis of the Minnesota Criminal Code and review of POST requirements. Limited to students seeking POST certification. Limited to 15 students. Prerequisites: admission to the Sociology Criminal Justice L.E. Track, SOC 315, SOC 418 and/or instructor's permission. Grade only. Offered yearly.

478 - Seminar in Criminal Justice-1-3 S.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: admission to Sociology: Criminal Justice Program and/or instructor's permission. Grade only. Offered yearly.

490 - Correctional Administration-3 S.H.

An analysis of current topics in correctional administration. A survey of theories or management styles will be examined. Prerequisites: admission to Sociology: Criminal Justice Program and instructor's permission. Limited to 20 students. Grade only. Offered every other year.

491 - Crime Prevention and Community Policing-3 S.H.

An analysis of crime prevention and community policing including a proactive response to crime. Examines the principles of planning, research, and evaluation. Prerequisites: admission to Sociology: Criminal Justice Program and/or instructor's permission. Limited to 25 students. Grade only. Offered each semester.

Criminal Justice Field Courses*

385 - Field Experience-1-6 S.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 each semester. P/NC only.

461 - Criminal Justice Internship-1-15 S.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 Program; at least junior standing; and/or instructor's permission. Offered each semester. P/NC only.

* Note all field courses have an additional fee to cover malpractice liability insurance.

Sociology Course Descriptions

150 - Human Society-3 S.H.

An introduction to sociology as a social science concerned with the systematic study of human society; consideration of individuals, groups and relationships. Grade only. Offered every semester.

201 - Scandinavian Culture-3 S.H.

A sociological analysis of the culture and social institutions of modern Scandinavia with emphasis on developments in selected Nordic countries. Grade only. Offered yearly.

205 - Social Interaction-3 S.H.

A study of human interactions and relations among people, how social situations affect behavior, how people acquire the ability to interact as members of society, and the methods used to study human interaction. Recommended prerequisite: SOC 150. Grade only. Offered every semester.

212 - The Family-3 S.H.

Analysis of the family as a group, historical, cultural and institutional aspects including the analysis of group processes. Recommended prerequisite: SOC 150. Grade only. Offered every semester.

216 - Social Problems-3 S.H.

The nature, characteristics and proposed solutions for selected social problems. Recommended prerequisite: SOC 150. Grade only. Offered every semester.

314 - Juvenile Delinquency

Quarter Course: 414G.

In-depth analysis of juvenile delinquency, its development, control, treatment and prevention. Prerequisites: SOC150, SOC 210, SOC 315 and/or instructor's permission. Limited to 30 students. Grade only. Offered twice yearly.

315 - Criminology-3 S.H.

An analysis of the theory and measurement of crime. Prerequisites: SOC 150 and, for Criminal Justice students, SOC 210 or instructor's permission. Limited to 30 students. Grade only. Offered twice yearly.

334 - Sociology of Education-3 S.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: SOC 150. Grade only. Offered every two years.

340 - Social-Cultural Anthropology-3 S.H.

The cross-cultural and comparative examination of different cultures with emphasis on the varieties and ranges of human behavior. Prerequisite: SOC 150. Grade only. Offered yearly.

350 - Population Analysis-3 S.H.

Ways in which demographic factors (births, deaths and migration) explain variations in social structures and processes. Examination of causes and consequences of current population growth at the regional, national and international levels. Prerequisite: SOC 150. Grade only. Offered yearly.

376 - Introduction to Social Research-3 S.H.

An introductory course in the use of social research methods. Basic knowledge and skills are developed in all phases of the social research process. Sections of this course are taught by Sociology, Criminal Justice and Social Work faculty. Prerequisite: SOC 150 and for B.A. Sociology majors, STAT 110 or PSY 231. Limited to 30 students. Grade only. Offered every semester.

377 - Sociological Theory and Methods-3 S.H.

The examination of major schools of sociological theory with consideration of the interrelationship of theory with research methods. Prerequisites: SOC 150, STAT 110 or PSY 231, SOC 376 and admission to the B.A. Sociology Program. Limited to 25 students. Grade only. Offered yearly.

378 - Laboratory in Social Research-3 S.H.

A "hands-on" experience in the collection and interpretation of research data and the preparation of an empirical research report. Prerequisites: SOC150, STAT 110 or PSY 231, SOC 376, SOC 377 and admission to the B.A. Sociology Program. Limited to 25 students. Grade only. Offered yearly.

411 - Sociology of Religion-3 S.H.

Comparative study of religious beliefs, institutions and symbols and their roles in different societies. Prerequisite: SOC 150. Grade only. Offered every three years.

412 - Sexuality in American Society-3 S.H.

An extensive review of recent research in the area with special emphasis on behavioral and cultural aspects of sexuality. Prerequisite: SOC 150. Limit to 25 students. Grade only. Offered yearly.

421 - Urban Sociology-3 S.H.

Growth, structure and function of cities, spatial patterning, neighborhoods and ethnic groups; social life of city dwellers and urban social change at the regional, national and international level. Prerequisite: SOC 150. Grade only. Offered yearly.

423 - Race Relations and Minority Groups-3 S.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. Grade only. Offered every semester.

425 - Social Change and Social Movements-3 S.H.

An examination of the processes through which values, norms, institutions, stratification systems and social relationships are altered over time; the role of social movements in promoting or resisting these changes. Prerequisite: SOC150. Grade only. Offered every three years.

428 - Small Towns and Non-Metro Regions-3 S.H.

The study of the social organization of the non-metropolitan towns

and regions in the U.S. and selected other countries. Prerequisite: SOC 150. Grade only. Offered every three years.

430 - Political Sociology-3 S.H.

The organization of power into political structures and the social dynamics of this process. Prerequisite: SOC 150. Grade only. Offered every three years.

431 - Social Class and Power-3 S.H.

Social classes, their membership and their use of social, economic and political power. Prerequisite: SOC 150. Offered periodically.

434 - Medical Sociology-3 S.H.

Social factors associated with the incidence and treatment of illness and the social organization of medical institutions and distribution of medical services. Prerequisite: SOC 150. Grade only. Offered yearly.

435 - Family Roles and Relationship-3 S.H.

Specific study of family roles, communication patterns, decision-making and interpersonal relationships. Limited to 25 students. Prerequisite: SOC 150 and SOC 212. Grade only. Offered yearly.

437 - Sociology of Organizations-3 S.H.

Analysis of patterns, regularities, design and behavior of organizations in different environments and societies. Prerequisite: SOC 150. Grade only. Offered yearly.

438 - Health in Human Services Organizations-3 S.H.

Analysis of patterns, regularities, design and behavior in organizations providing health and human services. Prerequisite: SOC 150. Grade only. Offered yearly.

440 - Sociology of Dying and Death-3 S.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: SOC 150. Grade only. Offered yearly.

450 - Sociology of Aging-3 S.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: SOC 150. Grade only. Offered yearly.

499 - Senior Seminar in Sociology-3 S.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: SOC 150, STAT 110 or PSY 231, SOC 376, SOC 377, SOC 378, admission to the B.A. Sociology Program and senior standing. Grade only. Offered yearly.

Sociology - field courses*

385 - Field Experience-1-6 S.H.

An introductory field experience designed to acquaint students with professional responsibilities in an organization relevant to sociological practice. SOC 385 and SOC 460, separately or in combination, may be taken for a total of six (6) credits within the B.A. Sociology Major; an additional six (6) credits may be taken and applied as electives toward graduation. Prerequisites: SOC 150, STAT 110 or PSY 231, SOC 376, and admission to the B.A. Sociology Program. P/NC only. Arranged.

460 - Internship-1-15 S.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 SOC 460, separately or in combination, may be taken for a total of six (6) credits within the B.A. Sociology Major; and additional six (6) credits may be taken and applied as electives toward graduation. Prerequisites: SOC 150, STAT 110 or PSY 231, SOC 376, SOC 377, SOC 378 and admission to the B.A. Sociology Program. P/NC only. Arranged.

*Note all field courses have an additional fee to cover malpractice liability insurance.

Sociology Topics and Independent Studies Courses

480 - Variable Topics in Sociology-1-3 S.H.

A seminar course that analyzed selected topics and problems from the sociological perspective (subject to be chosen by instructor and announced before registration.) Prerequisite: 12 credits of Sociology or instructor's permission. Offered on demand. Grade only.

485 - Independent Readings in Sociology-1-3 S.H.

Intended to aid the student who has a special area of interest that goes beyond formal course limits. By arrangement.

487 - Special Projects in Sociology-1-3 S.H.
 For the student interested in pursuing an independent research in Sociology. Grade only. By arrangement.

Social Work Course Descriptions

340 - Introduction to Social Work and Social Welfare-3 S.H.
 Quarter Course: 375.

Introduction to Social Work and Social Welfare looks at the profession of social work and U.S. social welfare policy both historically and in the present. Offered each semester. Grade only.

365 - Social Work Practice I - Ethics and Interviewing-3 S.H.
 Quarter Course: 390.

The first of three practice courses to prepare students as generalist practitioners able to provide services and intervene for change at all systems levels. Values, ethics and interviewing skills with diverse populations stressed. Prerequisite: SW 340, completion of foundation courses or instructor's permission. Limited to 25 students.

Grade only. Offered each semester.

370 - Human Behavior and the Social Environment-3 S.H.
 Quarter Course: 404.

An introduction to systems theory in understanding human behavior. The major focus is the theoretical perspectives of human behavior in the social environment and the relationships of these to social work practice intervention. Prerequisites: SOC 150, BIO 117, PSY 210 and 250, and SW 340 or instructor's permission. Junior class standing minimum. Grade only. Offered each semester.

380 - Social Welfare Policy-3 S.H.

American social welfare policy has shaped the nature of income maintenance, health, education, employment and housing in the U.S. Concepts of equality, adequacy and efficiency, as well as dignity and community, are used to evaluate the nature and structure of social welfare policies. Prerequisite: SW 340. Grade only. Offered each semester.

385 - Social Work Practice II - Families and Groups-3 S.H.
 Quarter Course: 395.

This course is a continuation of Practice I (SOC 365). It looks at generalist practice skills needed in assessment and to affect change utilizing a strengths perspective. Students learn to utilize these skills working with groups, families and individuals of different backgrounds and cultures. Prerequisite: SW 365 and acceptance into the Social Work Program. Grade only. Offered each semester.

410 - Analysis of Social Welfare Policy-3 S.H.

Quarter Course: 402.

The focus of this course is the ideology and content of social welfare policy, the process by which it is developed, its implications for social work practitioners at all levels and methods of affecting change. Prerequisite: SW 380. Grade only. Offered each semester.

415 - Social Work Practice III - Organizations and Communities-3 S.H.

Quarter Course: 401.

This is the final of the practice courses designed to prepare students as generalist practitioners able to provide services to client systems at all levels. The focus of this course is on the evaluation and termination processes of planned change, crisis intervention and macro skills of intervention. Prerequisite: SW 385 and formal acceptance into the Social Work Program. Grade only. Offered each semester.

420 - Child Welfare-3 S.H.

Quarter Course: 454.

This course looks at the problems vulnerable children face, and the skills, policies and programs needed to serve them. Prerequisite: SW 340 or instructor's permission. Grade only.

425 - Law and Social Work-3 S.H.

Quarter Course: 403.

This course is an overview of the law, the legal system, the hearing process and the role of social workers in the legal arena.

Prerequisite: SW 340 or instructor's permission. Grade only.

430 - Aging: Policies and Services-3 S.H.

Quarter Course: 455.

This course covers the problems faced by the elderly, and the policies and programs created to help them. Prerequisite: SW 340 or instructor's permission. Grade only.

440 - Variable Topics in Social Work-1-3 S.H.

Quarter Course: 480.

A seminar course that analyzes topics and problems from the social work perspective (subject to be chosen by instructor and announced before registration). Grade only.

450 - Independent Studies in Social Work-1-3 S.H.

Quarter Course: 485.

Intended to aid the student who has a special area of interest that goes beyond formal course limits. By arrangement. Offered each semester. Grade only.

460 - Special Projects in Social Work-1-3 S.H.

Quarter Course: 487.

For the student interested in pursuing an independent research project in Social Work. By arrangement. Grade only. Offered each semester.

480 - Senior Seminar in Social Work-3 S.H.

Quarter Course: 479.

This course provides the opportunity for students to integrate Social Work theory to the external world by involving students in in-depth discussions of their practicum experiences. Co-requisite: SW 475. Grade only.

Social Work - Field Courses*

350 - Field Experience I-3 S.H.

351 - Field Experience II-3 S.H.

Quarter Course: 385.

These courses provide students with an experience in a human service agency through 120 hours of volunteer service. Students meet regularly to share information about their respective placements. For 350, prerequisite or co-requisite: SW 340; can be taken with SW 365; For 351, prerequisite 350. P/NC only.

400 - Social Work Practicum Preparation-1 S.H.

Quarter Course: 458.

The focus of this class is to facilitate the student's preparation for the practicum experience. It includes the selection of a site and the development of both a sample learning contract and a sample research proposal. Prerequisite: To be taken concurrently with SW 415. P/NC only.

475 - Social Work Senior Practicum- 12 S.H.

Quarter Course: 462.

Field placement in selected social service agencies under professional instruction. Includes the development and completion of a learning contract and a research project. Prerequisite: Satisfactory completion of all coursework required in the social work major. Co-requisite: SW 480. P/NC only.

*Note all field courses have an additional fee to cover malpractice liability insurance.

SPECIAL ACADEMIC PROGRAMS

In addition to baccalaureate and graduate degree programs, WSU offers a variety of short-term programs including one-year non-degree programs, two-year associate degree program and pre-professional sequences in dental hygiene, dentistry, engineering, law, medicine (allopathic and osteopathic), mortuary science, optometry, pharmacy, physician assistant, physical therapy, podiatry, veterinary medicine (See Pre-Professional Sequences for more information). 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 (See the Education Department program descriptions for more information).

GENERAL ASSOCIATE IN ARTS CURRICULUM

64 S.H.

All candidates for the general Associate in Arts must complete the following:

I. Basic Skills (12 S.H.)

- A. Written Communications (4 S.H.)
English 111
- B. Oral Communications (0-3 S.H.)
CMST 191 or satisfactory completion of a special examination offered once a semester by prior arrangement.
- C. Mathematics (0-3 S.H.)
Mathematics 100
Successful completion of any MATH or MATH/STAT course except MATH 050, STAT 115 or STAT 255.
MATH 050 is an additional requirement for students with a low mathematics placement score.
- D. Physical Education Activities (2 S.H.)
HPER 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 118, 120, 122, 123, 127, 199.

II. Humanities (6 S.H. minimum - 2 departments)

III. Natural Sciences (6 S.H. minimum; one lab course required - 2 departments)

IV. Social Sciences (6 S.H. minimum - 2 departments)

V. Different Culture (6 S.H. minimum - 2 departments)

In addition to the general education requirements, you must select electives to complete the 64 credits required for the degree. You must complete a minimum of 16 SH at Winona State University to earn an Associate in Arts Degree.

B.A. MAJOR - PROFESSIONAL STUDIES: AVIATION MAINTENANCE MANAGEMENT OPTION

128-139 S.H. (No Minor Required)

(For students who have completed the Aviation Maintenance Program at Red Wing/Winona Technical College)

Pasteur Hall, Room 114D, (507) 457-5264
Dr. George Bolon, Advisor

This option is to prepare students to manage systems and technicians within the aviation maintenance industry. Graduates with this option will meet the needs of air carrier, the federal government, corporate aviation and commercial aviation. IT IS OPEN ONLY to students who have completed the Aviation Maintenance Program at Red Wing/Winona Technical College. Others may be admitted by petition. Only 40 credits will transfer from the technical college applicable toward this option.

There are five aspects to this degree program: (1) General Education; (2) Management Core; (3) Advanced Aviation Courses; (4) Computer Understanding and Application; and (5) Upper-Division Electives.

1. General Education (48 S.H.)

Basic Skills (9 S.H.)

Humanities (6 S.H.)

Natural Science (7 S.H.)

MATH 140 Applied Calculus (3)

PHYS 201 General Physics I (4)

Social Science (6 S.H.)

PSY 210 General Psychology (3)

ECON 201 Principles of Microeconomics (3)

Different Culture (6 S.H.)

Allied Studies (3 S.H.)

MGMT 317 Management of Human Resources (3)

POM 334 Production and Operations Management (3)

DIS 362 Management Information Systems (3)

Marketing (3 s.h.)

3. Aviation (12 S.H.)

200 Fundamentals of Aviation (4)

383 Air Traffic Control (3)

387 Flight Safety (3)

388 Legal and Legislative Aspects

4. Computer Application (6 S.H.)

CS 130 Introduction to BASIC Computing (3) OR

DIS 312 Business Computer Programming (3)

Any Computer Science elective and/or

DIS 202 Microcomputers in Business (3)

5. Upper-Division Electives (15 S.H.)

These electives must be approved by AWS faculty advisor

6. Technical College Transfer (40 S.H.)

ADDITIONAL REQUIREMENTS FOR CERTIFICATION (11 S.H.):

PHYS 202 General Physics II (4)

STAT 210 Statistics (3) OR

DIS 220 Business Statistics (3)

CHEM 212 Principles of Chemistry I (4)

2. Business Administration (18 S.H.)

DIS 220 Business Statistics (3)

BUSA 301 Business Law (3)

MGMT 315 Principles of Management (3) OR

FAA Airway Science Certification Program

146-162 S.H. (FAA Airway Science Certification pending)

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.

WSU 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. Students in these curriculums will, upon meeting respective major department degree requirements, receive a B.S. in Computer Science with a Physics/Airway Science/Aviation Minor or a B.S. in Business Administration with a Physics/Airway Science/Aviation Minor. With the noted additional other required courses, their transcripts will indicate that they have fulfilled the Airway Science curriculum.

AIRWAY SCIENCE OPTIONS

FAA Airway Science Curriculum requirements are subject to change by the Federal Aviation Administration. Therefore, this catalog may not show the latest requirements. See the Airway Science faculty advisor for more information.

COMPUTER SCIENCE OPTION

Degree program: 128 S.H.; Certification: 146 S.H.

GENERAL EDUCATION

(45 S.H.)

Basic Skills (9 S.H.)

English (4 s.h.)

111 College Reading and Writing (4)

Communication (3 s.h.)

191 Fundamentals of Speech (3)

Physical Education (2 s.h.)

Humanities (6 S.H. - 2 departments)

History (3 s.h.)

122 Western Civilization 1815 to Present (3)

Electives from the approved general education courses from one department other than History

Natural Science (15 S.H. - 2 departments)

Geoscience (3 s.h.)

115 Meteorology (3)

Mathematics (12 s.h.)

125 Calculus I (4)

126 Calculus II (4)

210 Discrete Math (4)

Social Science (6 S.H. - 2 departments)

Economics (3 s.h.)

201 Principles of Microeconomics (3)

Psychology (3 s.h.)

210 General Psychology (3)

Different Culture (6 S.H. - 2 departments)

Allied Studies (3 S.H.)

Accounting (3 s.h.)

211 Financial Accounting (3)

MANAGEMENT (12 S.H.)

Business Administration (12 s.h.)

DIS 220 Business Statistics (3)

BUSA 301 Business Law I (3)

MGMT 315 Principles of Management (3) OR

MGMT 325 Organization of Dynamics (3)

POM 334 Production and Operations Management (3)

COMPUTER SCIENCE (58 S.H.)

Computer Science (50 s.h.)

150 Overview of Computer Science (3)

155 Introduction to Computer Science Tools (1)

234 Algorithms and Problem Solving (4)

250 Algorithms and Data Structures (4)

312 Microcomputer Organization (3)

341 Advanced Data Structure (4)

351 Introduction to Assembler and Architecture (3)

376 Operating Systems (3)

410 Software Engineering (3)

412 Networking/Telecommunications (3) OR

415 Principles of Program Language (3)

417 Object Oriented Design and Development (3)

420 Computer Architecture (3)

425 Numerical Analysis (4)

435 Theory of Computation (3)

450 Compilers (3)

466 Topics: General Computing Applications (3) OR

485 Database System Design (3)

Physics (2 s.h.)

322 Computer Organization (2)

Computer Science Electives (6 s.h.)

301 Discrete Structures for Computer Science (3)

385 Applied Database Management Systems (3)

413 Advanced Networking (3)

430 Computer Graphics (3)

445 Artificial Intelligence (3)

465 Topics: Computing Theory (1-3)

476 Distributed System: Concepts and Designs (3)

AVIATION (12 S.H.)

Physics (12 s.h.)

200 Fundamentals of Aviation (4)

383 Air Traffic Control (3)

387 Flight Safety (3)

388 Legal and Legislative Aspects (2)

OTHER REQUIREMENTS BEYOND DEGREE FOR FAA AIRWAY SCIENCE CERTIFICATION

18 s.h.

Business Administration (3 s.h.)

MGMT 317 Management of Human Resources (3)

Chemistry (4 s.h.)

212 General Inorganic Chemistry (4)

Geography (3 s.h.)

212 Physical Geography (3)

Physics (8 s.h.)

201 General Physics I (4)

202 General Physics II (4)

MANAGEMENT OPTION

Degree Requirement: 128 S.H. Certification: 162 S.H.

GENERAL EDUCATION AND STUDIES

(47 S.H.)

Basic Skills (9 S.H.)

English (4 s.h.)

111 College Reading and Writing (4)

Communication (3 s.h.)

191 Fundamentals of Speech (3)

Physical Education (2 s.h.)

Humanities (6 S.H.)

History (3 s.h.)

122 Western Civilization 1815 to Present (3)

Electives from the approved general education courses from one department other than History

Natural Science (11 S.H.)

Mathematics/Statistics (3 s.h.)

MATH 140 Applied Calculus (3)

Physics (8 s.h.)

201 General Physics I (4)

202 General Physics II (4)

Social Science (12 S.H.)

Economics (6 s.h.)

201 Principles of Microeconomics (3)

202 Principles of Macroeconomics (3)

Political Science (3 s.h.)

103 Introduction to Politics (3)

Psychology (3 s.h.)

210 General Psychology (3)

Different Culture (6 S.H.)

Allied Studies (3 S.H.)

Accounting (3 s.h.)

211 Financial Accounting (3)

MANAGEMENT (60 S.H.)

Business Administration (36 s.h.)

DIS 202 Microcomputers in Business (3)

DIS 220 Business Statistics (3)

BUSA 301 Business Law I (3)

BUSA 311 Business Law II (3)

MGMT 315 Principles of Management (3) OR

MGMT 325 Organization of Dynamics (3)

MGMT 317 Management of Human Resources (3)

DIS 320 Intermediate Business Statistics (3)

POM 334 Production and Operations Management (3)

MGMT 340 Management Science (3)

DIS 362 Management Information Systems (3)

POM 434 Quality and Productivity Management (3) OR

MGMT 435 Managing for Quality (3) OR

MGMT 445 Quality Improvement Methods (3)

MGMT 495 Strategic Management (3)

Accounting (3 s.h.)
212 Managerial Accounting (3)
Finance (3 s.h.)
360 Corporate Finance (3)
Marketing (3 s.h.)
315 Principles of Marketing (3)
Business Administration Electives (15 s.h.)

OPTION A:

MIS course (3)
Management course (3)
International Business/Management (3) OR
An international course from Accounting, Business
Administration, Economics and Finance or
Marketing (3)

Any course from the Department of Business Administration (3)
Any course from the Department of Business Administration,
Accounting, Economics and Finance or Marketing (3)

OPTION B:

A minor or second major from the Department of Accounting,
Business Administration, Finance and Economics or Marketing,
which includes a minimum of 15 s.h. of non-duplicative courses.

COMPUTER SCIENCE (3 S.H.)

Computer Science (3 s.h.)
210 Computers in Society (3)

AVIATION (18 s.h.)

Physics (18 s.h.)
200 Fundamentals of Aviation (4)
381 Corporate Operations (2)
382 Airline Operations (2)
383 Air Traffic Control (3)
384 Airport Operations (2)
387 Flight Safety (3)
388 Legal and Legislative Aspects (2)

OTHER REQUIREMENTS BEYOND DEGREE FOR FAA AIRWAY SCIENCE CERTIFICATION

31 S.H.

Chemistry (4 s.h.)

212 General Inorganic Chemistry (4)

Communication Studies (9 s.h.)

387 Interpersonal Communications (3)
466 Organization Communication (3)
485 Senior Seminar in Communications (3)

Geography (3 s.h.)

212 Physical Geography (3)

Geosciences (3 s.h.)

115 Meteorology (3)

Mathematics (6 s.h.)

See advisor for specific recommendations

Psychology (3 s.h.)

305 Theories of Personality (3)

Sociology (3 s.h.)

150 Human Society (3)

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-1-12 S.H.

Specific details regarding the course are contained in internship program statements from the departments using it. There is a limit of 12 internship credits per semester and 16 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 16 credits, a maximum of 21 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 3 S.H. of work related to courses may be taken for grade with approval of department and area dean.

UNIVERSITY HONORS PROGRAM

Phelps Hall, Room 231, (507) 457-5435
Kristi Lane (Director)

The Honors Program provides students with a liberal education tailored to the abilities and interests of talented students. It is a program to which students with high potential can apply as an entering first-year student, transfer student or an enrolled student. The Honors Program offers courses with a multidisciplinary focus within the framework of humanities, natural sciences and social sciences. The program keeps class sizes small in order to facilitate learning by participation, discussion and integration of knowledge from multiple sources. The program represents a community of faculty and students seeking to develop the potential of Honors students. Successful completion of the Honors Program gives graduates enhanced prospects for successful career placement and graduate school admission.

Admissions Entering First Year

Incoming students who are Distinctive Admits meet qualifications for the Honors Program.

Enrolled Students

Enrolled students can apply for admission to the program if they have a college GPA of 3.25 or above.

Transfer Students

Transfer students can apply for admission if they meet the GPA criteria for enrolled students.

Recognition

Graduating students who complete the program with an overall GPA of 3.75 or above graduate from the University "Summo Cum Honore" instead of "Summa Cum Laude." Students completing the program with a GPA of 3.5 to 3.74 graduate "Magno Cum Honore" instead of "Magna Cum Laude." Students with a GPA between 3.25 and 3.49 graduate "Cum Laude." The title of the Senior Thesis is placed on the transcript.

Course Descriptions

Students can substitute 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 an Honors course if they have either a 3.25 GPA or the instructor's permission. These students are expected to meet course standards.

Core Courses

Core courses are variable-content courses, and a course number (201, 202, 203) can be repeated for credit provided 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 1-3 credit hours.

REQUIREMENTS (21 S.H. minimum)

Students should complete 4 of the following 6 courses listed as core courses and as special seminars. Students also must complete two "H" courses or two Departmental Honors courses and the senior project. Students formally accepted for admission to the University Honors Program are expected to complete at least one of these courses in each of their first two years.

Complete 4 of the following 6 courses:

CORE COURSES

- 201 Thought & Culture
- 202 Classics in Social Thought
- 203 Great Ideas in the History of Science & Mathematics

SPECIAL SEMINARS

- 251 Seminar in Humanities
- 252 Seminar in Social Thought
- 253 Seminar in the History of Science & Mathematics

Complete 2 of the following courses:

"H" COURSES (3-6 S.H.)

Students should take designated "H" courses and "H" contract courses to extend an interest into a field related to their own or intensify an interest within their own field. "H" courses may include those designated by individual departments as well as the contract courses.

Complete the SENIOR PROJECT (3 S.H.)

The Senior Project requires the student to complete at least one independent study course or the Honors Capstone course (450). The senior project must include a written paper and an oral presentation. More information about the Senior Project is available in the Honors Office.

University Honors Program Course Descriptions

201 - Thought and Culture-1-3 s.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: Violence: Films, Plays, Media; Thought & Culture: Dilemmas of Identity in Contemporary Life. Grade only.

202 - Classics in Social Thought-1-3 s.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: Ancient Myth and Mod Belief; Primates and Politics. Grade only.

203 - Great Ideas in the History of Science and Mathematics-1-3 s.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: Drama and Cosmologies. Grade only.

251, 252, 253 - Special Seminars-1-3 s.h.

Special seminars concentrate on specialized topics within one of three areas. These seminars emphasize student initiative and presentation. The topics are specialized in that their range is narrower than topics in the core courses. A high degree of technical expertise is not required. One seminar offered each year on a rotating basis. Recent offerings include Time: History & Measures; The Western: America's Myth; Media and Social Response; Writing the Honors Thesis. Prerequisite: Admission into the program or instructor's permission. Grade only.

450 - Honors Capstone-3 s.h.

Students will develop proposals and complete a research project on a selected topic; or significantly expand an existing piece of work; or, develop an applied project, exhibition, or performance. All projects require a written paper and an oral presentation. Students who need additional time to complete the project will receive an "I". Prerequisites: Honors Program student, completion of one core Honors course (201, 202, 203, 251, 252, 253), junior/senior status. Permission of instructor required. Grade only. Offered yearly.

SPECIAL EDUCATION

Gildemeister Hall, Room 221

Frank Rocco (Chairperson), Barbara Boseker, Carol Long, Lyelle Palmer, Jan Pickart (507/457-5535), email: jpickart@VAX2.winona.msus.edu

Faculty

Barbara Boseker, Professor; B.S., University of Wisconsin-Milwaukee; M.A., Ph.D., University of Wisconsin-Madison; 1995-

Carol A. Long, Associate Professor, B.S., M.A., Ph.D., University of Missouri-Columbia, 1993-

Lyelle Palmer, Professor, B.M., M.M., Southern Methodist University; Ph.D., University of North Texas; 1977-

Frank Rocco, Professor, B.S., Clarion College; M.Ed., Boston College; Ph.D., Michigan State University; 1972-

NOTE: Programs listed below were still in the process of approval by the WSU Faculty Committees and the Minnesota Board of Teaching as this catalog went to press. Final/approved program listings are available from the special Education Department.

SPECIAL EDUCATION

Two undergraduate and one graduate program leading to full K-12 licensure by the State of Minnesota are offered at WSU. They are:

- Learning Disabilities K-12 licensure (99 S.H.)
- Developmental Disabilities, (Mild/Moderate/Severe/Profound) K-12 Licensure (110 S.H.)
- Emotional Behavioral Disorders (Graduate Level Only) This licensure is offered in cooperation with the University of Minnesota and requires the WSU/Learning Disabilities licensure as prerequisite. Please refer to the SPED section of the WSU Graduate Catalog.

PROGRAM REQUIREMENTS

B.S. IN EDUCATION LEARNING DISABILITIES K-12 LICENSURE

GENERAL EDUCATION (See University Catalog)

I BASIC SKILLS (12 S.H.)

- ENG 111 Written Composition (4)
- CMST 191 Oral Communication (3)
- MATH 100 or higher Mathematics (3)
- Physical Education Activity (2) (in one area)

GENERAL EDUCATION (22 S.H.)

Three courses (9 s.h.) required in one area plus one course (3 s.h.) required in each of the other areas. All courses must be General Education courses. (See University Catalog)

II HUMANITIES (3)

III NATURAL SCIENCE (lab required) (4)

IV SOCIAL SCIENCE - Psychology 210 (3)

V DIFFERENT CULTURE - SPED 200 (3)

VI ALLIED STUDIES - HHP 204 (3)

PROFESSIONAL EDUCATION SEQUENCE (20 S.H.)

- EDUC 305 Human Development and Learning (4)
- EDUC 308 Human Relations (3)
- EDUC 312 Instructional Planning and Assessment (3)

- EDUC 429 Secondary Reading (4) OR
- SPED 429 Sec. Multisensory Reading Instruction (3)
- EDUC 449 Middle School Philosophy (3)
- EDUC 459 Professional Educator (3)

SPECIALTY COURSES (18 S.H.)

- EDUC 328 Reading Methods I (3)
- EDUC 329 Reading Methods II (3) OR
- SPED 329 Developmental/Multisensory Rdg. Instr. (3)
- EDUC 334 Math Methods (3) OR
- SPED 334 Direct Instruction Math (3)
- SPED 425 Inclusion in Regular Classrooms (3)

LICENSURE COURSES

LEARNING DISABILITIES (33 S.H.)

- SPED 405 Behavioral Management (3)
- SPED 420 Administrative Procedures (3)
- SPED 430 Characteristics of Students w/Disabil. (3)

SPED 410 Intro to Assessment/Methods (3)

SPED 411 Practicum A (3)

SPED 445 Assessment/Methods LD (3)

SPED 446 Practicum B (15)

PROGRAM REQUIREMENTS

B.S. IN EDUCATION

DEVELOPMENTAL DISABILITIES

K-12 LICENSURE

GENERAL EDUCATION (See University Catalog)

I BASIC SKILLS (12 S.H.)

- ENG 111 Written Composition (4)
- CMST 191 Oral Communication (3)
- MATH 100 or higher Mathematics (3)
- Physical Education Activity (2) (in one area)

GENERAL EDUCATION (22 S.H.)

Three courses (9 s.h.) required in one area plus one course (3 s.h.) required in each of the other areas. All courses must be General Education courses. (See University Catalog)

II. HUMANITIES (3)

III. NATURAL SCIENCE (lab required) (4)

IV. SOCIAL SCIENCE - Psychology 210 (3)

V. DIFFERENT CULTURE (3)

VI. ALLIED STUDIES - HHP 204 (3)

PROFESSIONAL EDUCATION SEQUENCE (20 S.H.)

- EDUC 305 Human Development and Learning (4)
- EDUC 308 Human Relations (3)
- EDUC 312 Instructional Planning and Assessment (3)
- EDUC 429 Secondary Reading (4) OR
- SPED 429 Sec. Multisensory Reading Instruction (3)
- EDUC 449 Middle School Philosophy (3)
- EDUC 459 Professional Educator (3)

SPECIALTY COURSES (15 S.H.)

- EDUC 328 Reading Methods I (3)
- EDUC 329 Reading Methods II (3) OR
- SPED 329 Developmental/Multisensory Rdg. Instr. (3)
- EDUC 334 Math Methods (3) OR
- SPED 334 Direct Instruction Math (3)
- SPED 425 Inclusion in the Regular Classroom (3)

LICENSURE COURSES

DEVELOPMENTAL DISABILITIES (44 S.H.)

- SPED 405 Behavioral Management (3)
- SPED 420 Administrative Procedures (3)
- SPED 430 Characteristics of Students w/Disabil. (3)
- SPED 410 Intro to Assessment/Methods (3)
- SPED 411 Practicum A (3)
- SPED 440 Assessment/Methods DD (3)
- SPED 441 Practicum B (15)
- SPED 407 Management/Severe DD (3)
- SPED 408 Functional Skills Development (3)
- SPED 409 Medical Aspects (2)
- SPED 431 Language/Sensory Stimulation (3)

DOUBLE MAJOR WITH OTHER TEACHING LICENSURES

The WSU SPED Department guarantees that students may major in SPED and complete one licensure within four years. In addition, the SPED Programs (LD and DD licensures) are designed so students may receive both licensures within the 128 credits required for graduation.

Students wishing to double major in SPED and a second teaching licensure (Elementary Education, Math Education, English Education, Music Education, Science Education, etc.) may do so but will be required to spend additional time at the University. This may be accomplished through the efficient use of summer classes and/or additional semesters as needed. See a SPED advisor for direction.

REQUIREMENTS FOR MAJORING IN SPECIAL EDUCATION (LD, DD)

NOTE: It is of critical importance that applicants to the program see a SPED advisor immediately upon making the decision to major in SPED. This is true for double majors as well. The SPED programs have courses which can be taken during each college year. The General Education courses are NOT taken first followed by the courses in the major. Both are taken together. Again, it is imperative that students see a SPED advisor immediately.

REQUIREMENTS FOR APPLICATION AS A SPED MAJOR

1. 2.75 GPA for at least 30 consecutive credits
2. B or better in English 111 and CMST 191
3. Completion of the Reading, Math, and Writing sections of the PreProfessional Skills Test (PPST) before application to the program. (It is suggested that the test be taken during the first semester Freshman year or before entering college.)
4. Attend an Education Department Handbook Meeting and complete an Application to Teacher Education
5. Complete a SPED Department application form
6. Maintain a GPA of 2.75 as a requirement of Student Teaching

Course Descriptions

400 - Education of the Exceptional Child- 3 S.H.

An overview of information to assist human service professionals in understanding the educational, vocational and other transitional needs of individuals in preschool through post-school who are speech impaired, learning disabled, emotionally disturbed, behaviorally disordered, deaf, blind, mentally disabled, physically disabled, health impaired or gifted. IDEA, ADA and SEC 504 as well as parent participation are stressed. Grade only.

405 - Student Management Systems-3 S.H.

Quarter Course: 405.

A study of management systems used in modern preschool through high school education settings with emphasis upon preventive, proactive techniques. The course has a video laboratory component of four hours per week wherein students are given guided practice in the use of each technique learned. Both regulated and unregulated management systems for regular education and special education students are taught. Enrollees may choose to obtain certification from the National Crisis Prevention Institute as a result of course completion. Offered twice yearly.

407 - Management of Severe DD- 3 S.H.

Management of extremely challenging behavior problems (e.g., self-stimulation, self-injurious behavior, ritualistic behavior, severe attention deficits, etc.). Included are less severe behaviors which inhibit acquisition, maintenance, and generalization of newly learned skills. Offered yearly. Grade only. Prerequisites: SPED 500, 505, 520.

408 - Functional Skills Development - 3 S.H.

Methods and materials utilized in teaching functional skills to persons with severe handicaps. Motor-physical mobility, self-help/care, independent living, self-sufficiency, pre-employment, and daily learning skills are emphasized. Objective is to develop skills that may be used in self-care and assistive care environments. Offered yearly. Grade only. Prerequisites: SPED 500, 505, 520.

409 - Medical Aspects - 2 S.H.

Emphasis is placed upon acquiring knowledge in the medical aspects of severe disability which assist the teacher in communicating with

the medical profession and other caregivers in a multidisciplinary setting. The learning of first-response techniques that increase the safety of all students/clients is also emphasized. Offered yearly. Grade only. Prerequisites: SPED 500, 520, and a certificate or course in First Aid.

410 - Introduction to Assessment/Methods-3 S.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: SPED 400, SPED 405, EDUC 334 or MATH 110, EDUC 328 and EDUC 306. Concurrent enrollment in SPED 411 or SPED 531.

411 - Practicum A-3 S.H.

Practical application and guided practice in effective teaching procedures for students with disabilities. Involves placement in a special education classroom or inclusive setting daily for three to four hours. Prerequisites: admission to the Special Education Program; SPED 400, SPED 405, SPED 410 and EDUC 301; concurrent enrollment in SPED 410; advance application, Departmental permission to enroll.

420 - Special Education Administrative Procedures-3 S.H.

An overview of special education delivery models including finances, legislation, philosophic considerations, least restrictive approaches, parent involvement and due process safeguards. Local, state and federal rules and regulations are studied as are federal legislation including: IDEA, ADA and Section 504. Prerequisite: SPED 400. Offered twice yearly.

425 - Inclusion in Regular Classrooms-3 S.H.

Procedures for modification of the regular classroom curriculum and instruction to meet the individual needs of students with disabilities. Special attention to professional collaboration with regular educators. Prerequisites: SPED 400 and SPED 411 or EDUC 302. Offered yearly.

430 - Characteristics of Students with Disabilities-3 S.H.

This course is designed to provide the student with an understanding of the characteristics of students who are mentally retarded, learning disabled, or emotionally/behaviorally disturbed. Implications for planning instruction and issues related to field of Special Education are identified. Prerequisites: SPED 400, SPED 405 and SPED 420.

431 - Language/Sensory Stimulation - 3 S.H.

Methods and procedures for the stimulation, development, and augmentation of communication skills among the severely disabled. Included are alternative communication methods such as basic signing and technological augmentation, etc. that will assist the severely disabled in participating in less restrictive environments and their own care. Offered yearly. Grade only. Prerequisites: SPED 500, 505, 520, 507, 508.

440 - Assessment/Methods for Students with Mental Retardation-3 S.H.

Knowledge and skills for professional entry-level assessment and program development/adaptation for students with mild to moderate mental impairment including transition and paraprofessional supervision. Prerequisite: concurrent enrollment in SPED 441.

445 - Assessment/Methods for Students with Learning Disabilities-3 S.H.

Advanced skills and understanding of academic, processing and behavioral assessments, curriculum and instruction for planning the least restrictive educational programs for students with learning disabilities. Prerequisites: concurrent enrollment in SPED 446 or SPED 555. Offered twice yearly.

441 - Practicum B Developmental Disabilities-15 S.H.

Demonstration of competencies by the student teacher in professional entry-level knowledge and skills in assessment and program development/adaptation for students with developmental disabilities in day long, supervised school settings. Student teaching experience is full-time for a full semester.

446 - Practicum B Learning Disabilities-15 S.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 day long, supervised school settings. Student Teaching experience is full-time for a full semester. Students are strongly recommended to see their advisor before enrolling.

490 - Seminar Workshop-1-3 S.H.

499 - Individual Study-1-3 S.H.

THEATRE AND DANCE

Performing Arts Center, Room 215, (507) 457-5230
Bratt (Chairperson), Cohenour, Fusillo, Lewis

Faculty

David Bratt, Professor; B.A., Calvin College; M.A., University of Iowa; Ph.D., University of California-Santa Barbara; 1976 -
Gretchen Cohenour, Professor; B.A., Rockford College; M.F.A., University of Wisconsin-Madison; 1989-
Vivian Fusillo, Professor; B.A., Marymount College; M.A., Stephen F. Austin State University; 1968 -
E.M. Lewis IV, Assistant Professor; B.F.A., Marietta College; M.F.A., University of Massachusetts-Amherst; 1997 -

The Department of Theatre and Dance offers the B.A. major in Theatre and minors in Theatre and Dance (in cooperation with the Physical Education and Recreation Department).

The liberal arts Theatre Major offers cognitive, creative and practical classes which integrate 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. The Dance Minor provides an opportunity for students in any discipline to use the dance experience to enhance body/mind integration and to gain access to creative potential through the art of movement.

Theatre majors take coursework in acting, directing, theatre history, design and technical production, and then demonstrate their artistic ability by presenting Senior Capstone Production work as a performer, designer, or director. In addition, students may arrange to do independent study with a faculty member or gain hands-on experience in the professional world through an internship.

Students interested in theatre and dance have ample opportunity to practice their craft under the guidance of experienced faculty. In a recent year, the department's four major productions and two studio recitals gave 150 students the chance to fill nearly 300 performance, design and crew roles.

Department alumni have successfully built careers for themselves in fields ranging from professional theatre through high school and college teaching to marketing analysis, county court management and ownership of small businesses. Recent alumni report average career satisfaction ranging between 3.0 and 3.8 on a 4.0 scale.

Pass/No Credit Courses

Courses taken to count in a major or minor sponsored or co-sponsored by the THAD Department must be taken for a letter grade unless offered P/NC only.

090-THAD Showcase and Lab/Production Crew Requirements

THAD major and minor students enrolled in a course eligible for that major or minor are required to enroll concurrently in THAD 090-THAD Showcase for 0 credits, unless excused by the department chairperson. THAD 090 meets once a week during the semester.

THAD major and minor students enrolled in a course eligible for that major or minor are also required to complete a specified number of hours of work on a Main Season production crew during the semester. All students cast in a Main Season production have the same responsibility. Some THAD courses carry additional production responsibilities: see Course Descriptions for details.

THAD Majors and Minors

1. Theatre majors may minor in Dance but may not minor in Theatre.
2. New students who intend to major in Theatre or minor in Dance are strongly encouraged to consult with THAD Department faculty member before registering for courses in their first semester. Failure to do so may delay their graduation as much as a year. Continuing Theatre majors are required to confer with their departmental advisor before registering for classes each semester.
3. Students majoring in Theatre normally will be required to complete THAD 291 six (6) times with a grade of "P." Theatre minors will normally do so twice. Students who believe they should be excused from some or all of this requirement must petition the Department faculty for an exemption. This petition must be filed in the semester during which the student first declares the major or minor.

Transfer Students

1. Theatre majors and minors transferring to WSU with an AA degree will be exempted from 50% of the THAD 291 requirements listed above.
2. In order to graduate with a Theatre Major from WSU, a transfer student must normally complete at least 15 credits of WSU Theatre and Dance Department coursework numbered 300 or above.

Additional Graduation Requirements

1. A grade of "C" or better must be earned in each course taken for the Theatre Major.
2. A GPA of 2.5 must be earned in courses taken for a Theatre Major.

B.A. MAJOR - THEATRE

44 S.H. (Minor Required)

Prerequisite: Students are strongly recommended to take ENG 111 and CMST 191 in the first year and are required to complete these courses with a grade of "C" or better before enrolling in 300-level THAD courses. History 121 is required prior to enrollment in THAD 210 or 310.

REQUIRED COURSES (41 S.H.)

- 090 Showcase (0; enrollment with a grade of "P" required each semester any other major course is taken)
- 107 Introduction to Tech Theatre (2)
- 119 Play Reading (3)
- 131 Performance I (3)
- 207 Design Communication (3)
- 210 Theatre History/Dramatic Literature I (3)
- 231 Performance II (3)
- 291 Rehearsal & Performance (1; 6 s.h. required)
- 307 Design II (3)
- 310 Theatre History/Dramatic Literature II (3)
- 321 Play Directing (3)
- 331 Performance III (3)
- 395 Topics (1-3; 2 s.h. required)
- 490 Capstone Production Project (3)
- 495 Theatre Senior Seminar (1)

ADDITIONAL REQUIREMENTS (3 S.H.)

- * HIST 121 Western Civilization, 1500-1815 (3)
- * Course may be used to satisfy certain General Education requirement

B.A. MINOR - THEATRE

19 S.H.

Prerequisite: Students are strongly recommended to take ENG 111 and CMST 191 in the first year and are required to complete these courses with a grade of "C" or better before enrolling in 300-level THAD courses. HIST 121 also is strongly recommended prior to enrollment in THAD 210 or THAD 310.

REQUIRED COURSES (16 S.H.)

- 090 Showcase (0; enrollment with a grade of "P" required each semester any other minor course is taken)
- 107 Introduction to Tech Theatre (2)
- * 119 Play Reading (3)
- * 131 Performance I (3)
- 201 Play Production (3) OR
- 207 Design Communication (3) OR
- 231 Performance II (3)
- * 210 Theatre History/Dramatic Literature I (3) OR
- * 310 Theatre History/Dramatic Literature II (3)
- 291 Rehearsal & Performance (1; 2 s.h. required)

ELECTIVES (3 S.H.)

3 s.h. from 300 or 400 level THAD courses for which prerequisites have been met.

- * Course may be used to satisfy certain General Education requirement

B.A. MINOR - DANCE

(THAD/PER Co-op)
26 S.H.

REQUIRED COURSES (21 S.H.)

Theory (13 s.h.)

- * BIOL 211 Anatomy & Physiology I (4)
- * THAD 115 Dance Appreciation (3)
- * THAD 131 Performance I (3)
- THAD 322 Dance Composition (3)

Enrollment in THAD 090-THAD Showcase (0 s.h.) with a grade of P is required each semester any other THAD dance course is

taken. At least one of these enrollments must be in the senior year, when the student will assemble the required portfolio (see "Portfolio Requirement" section).

Technique (8 s.h.)

Must include at least 5 s.h. in either Ballet or Modern Dance from the following list. Each technique class may be repeated once for credit.

PER

- * 127 Ballet I (1)
- 227 Ballet II (2)
- 327 Ballet III (2)
- 427 Ballet IV (2)
- * 116 Modern Dance I (1)
- 216 Modern Dance II (2)
- 316 Modern Dance III (2)
- 416 Modern Dance IV (2)
- * 118 Jazz Dance I (1)
- 228 Jazz Dance II (2)

ELECTIVES (5 S.H.)

HHP

- * 205 Nutrition for Lifetime Wellness (3)
- 291 Prevention/Care of Athletic Injuries (2)
- 370 Kinesiology/Biomechanics (4)

THAD

- 107 Introduction to Technical Theatre (2)
- * 141 Oral Interpretation (3)
- 231 Performance II (3)
- 331 Performance III (3)
- 137 Dance Repertory I (2)
- 237 Dance Repertory II (2)
- 337 Dance Repertory III (2)
- 437 Dance Repertory IV (2)
- Each Dance Repertory class may be repeated once for a total of 4 s.h.

PER

- * 112 Folk/Square Dance (1)
- * 120 Ballroom Dance (1)
- 121 Introduction to Movement/Music (1)
- * 136 Tap Dance (1)
- * 137 Fencing (1)
- * 199 Lifetime Fitness (2)
- 201 Teaching Dance (2)

In addition, advanced level PER dance technique courses may be used as electives if not taken to fulfill requirements in the Required/Technique category.

MUSIC

- * 114 World Music (3)

Portfolio Requirement

Upon declaring a dance minor, make a "portfolio appointment" with Prof. Gretchen Cohenour, PAC 212, 457-5665. Dance minors document their development while at WSU by maintaining chronological videotapes of their work and other supporting written and visual materials, organized in portfolio form. The completed portfolio is submitted for faculty review by May 1 in the year of graduation.

Theatre and Dance Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the major and minors must be taken on a Grade Only basis except THAD Showcase, Internships, and Practicums. The P/NC option is available to non-majors unless otherwise noted.

090 - THAD Showcase-0 S.H.

Once-weekly sessions present creative work in theatre and dance courses, critiques of productions, discussions of professional, educational and employment issues. Repeatable: Grade of P in 8 enrollments normally required of Theatre majors; 4 of theatre minors and dance minors. Offered each semester. P/NC only.

100 - Theatre Activities-1 S.H.

Quarter Course: 001.

Active participation in a major theatre or dance production as performer or in box office, scenic studio or costume studio. Course may

be repeated to 6 s.h.; maximum of 3 credits may be taken for general education. Offered each semester.

107 - Introduction to Technical Theatre-2 S.H.

Quarter Course: 007, 008, and 009.

Study of non-performance aspects of theatre for theatre and teaching majors and minors. Course contains production crew requirement; concurrent registration in THAD 090 required unless excused by the Department. In addition, THAD majors and minors must concurrently enroll in 291; all other students must concurrently enroll in 100. Offered yearly. Grade only.

111 - What is Theatre-3 S.H.

Designed for the general student who wishes to become familiar with theatre. Students will explore the question, "What is theatre?" through class lectures and discussion, individual and group projects, production attendance, and play readings. Students will be expected to attend theatre productions outside normal class time. Offered each semester.

115 - Dance Appreciation-3 S.H.

Analysis and appreciation of theatrical dance styles, 20th century trends and diverse world cultures through historical and theoretical roots. Emphasis on kinesthetic involvement as a basis for response to the dance experience via film, video and movement. Concurrent registration in THAD 090 required of dance minors unless excused by the Department. Offered each semester.

119 - Play Reading-3 S.H.

Study and applications of analytical methods to modern theatrical styles; introduction to relationships between designers, directors and performers, and to research methods and library resources in theatre. Concurrent registration in THAD 090 required of theatre majors and minors unless excused by the Department. Offered yearly.

131 - Performance I For Everyone-3 S.H.

Quarter Course: 231.

Integration of vocal, physical and mental components of performance through solo and group improvisational and collaborative work. Concurrent registration in THAD 090 required of THAD majors and minors unless excused by the department. Offered yearly. P/NC option.

137 - Dance Repertory I-1-2 S.H.

May be taken by students preparing for public performance of new or previously-created dance which is choreographed by faculty or guest artists; or by student choreographers preparing dance for public performance under direct faculty supervision. Prerequisite: instructor's permission. May be repeated once. Concurrent registration in THAD 090 required of dance minors unless excused by the department. Offered each semester. Grade only.

141 - Oral Interpretation-3 S.H.

Quarter Course: 131.

Study of prose, poetry and drama through performance. Brings to life the printed symbol. Offered yearly.

205 - Make Up for the Performer

In-depth study of design and execution of traditional and non-traditional theatrical make up for the performer. Each student must purchase a personal theatrical make up kit to instructor's specifications. Concurrent registration in THAD 090 required of all majors and minors. Offered yearly. Grade only.

207 - Design Communication-3 S.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, free-hand sketching and rendering. Concurrent registration in THAD 090 required unless excused by the Department. Prerequisites: THAD 107 and THAD 119. Offered yearly. Grade only.

209 - Stage Management-I S.H.

Study and practice of the functions of a stage manager. Prerequisites: THAD 201 or THAD 207 and THAD 131. Offered by arrangement.

210 - Theatre History and Dramatic Literature I-3 S.H.

Quarter Course: 210 and 211.

Survey of the works of major Western playwrights through 1800, their cultural contexts and staging practices. No prerequisite for general education students. Prerequisites for THAD majors/minors: THAD 119, HIST 121. Additional assignments required. Concurrent registration in THAD 090 required of majors and minors unless excused by the Department. Offered yearly.

231 - Performance II-3 S.H.

Theories and practice of acting in realistic styles. Concurrent registration in THAD 090 required unless excused by the Department. Prerequisites: THAD 119 and THAD 131. Offered yearly. Grade only.

237 - Dance Repertory II-1-2 S.H.

Continuation of THAD 137. Prerequisite: THAD 137. May be repeated once. Concurrent registration in THAD 090 required unless excused by the Department. Offered each semester. Grade only.

239 - Creative Dramatics for Children-2 S.H.

Study and application of techniques which enable teachers and group leaders to guide others to imagine, enact and reflect upon human experiences through dramatic activity. Offered yearly.

290 - Creativity Across the Curriculum-2 S.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.

291 - Rehearsal and Performance-1 S.H.

Quarter Course: 100, 200, 300.

Responsible work as performer, crew head or running crew on the creation of theatrical productions for public presentation. Theatre majors must normally repeat to 6 s.h.; Theatre minors to 2 s.h. Concurrent registration in THAD 090 required unless excused by the Department. Offered each semester. Grade only.

307 - Design II-3 S.H.

Quarter Course: 307 and 308.

Study of the process for creating scenery and costume designs for the stage, including research, conceptualization, and creation of the pieces necessary to communicate a design to a director. Concurrent registration in THAD 090 required unless excused by the Department. Prerequisite: THAD 107, THAD 207, or instructor's approval. Offered alternate years.

309 - Design II Lighting and Sound-3 S.H.

Study of the process of creating lighting and sound designs for the stage including research, conceptualization, and creation. Concurrent registration in THAD 090 required of majors and minors unless excused by the Department. Prerequisite: THAD 107. Open to majors and minors or with instructor approval. Offered alternate years.

310 - Theatre History and Dramatic Literature II-3 S.H.

Quarter Course: 210 and 212.

Survey of the works of major Western playwrights 1800-1970, their cultural contexts and staging practices. No prerequisite for general education students. Prerequisites for THAD majors/minors: THAD 119, HIST 121. Additional assignments required. Concurrent registration in THAD 090 required of majors and minors unless excused by the Department. Offered yearly.

321 - Play Directing-3 S.H.

Study and application of processes affecting play selection, casting and rehearsals. Prerequisites: THAD 210, THAD 231, THAD 307 and THAD 310. Open to declared Theatre majors and minors only. Concurrent registration in THAD 090 required unless excused by the Department. Offered yearly. Grade only.

322 - Dance Composition-3 S.H.

Compositional theory, methods and conceptual approaches to traditional and non-literal choreography. Explores relationships between form, content, technique and projection of the dance image. Concurrent registration in THAD 090 required unless excused by the Department. Prerequisites: THAD 115 and THAD 131 or instructor's permission. Offered alternate years. Grade only.

331 - Performance III-3 S.H.

Theories and practice of acting in non-realistic styles. Concurrent registration in THAD 090 required unless excused by the Department. Prerequisite: THAD 231. Open to declared Theatre or Teaching majors and minors only. Offered yearly. Grade only.

337 - Dance Repertory III-1-2 S.H.

Continuation of THAD 237. Prerequisite: THAD 237. May be repeated once. Concurrent registration in THAD 090 required unless excused by the Department. Offered each semester. Grade only.

395 - Topics in Theatre-1-3 S.H.

Study of a specific topic in dramatic theory/literature/history, performance or theatrical design/stagecraft. Topics and course credits vary. May be repeated as topics change. Course may contain produc-

tion crew requirement. Concurrent registration in THAD 090 required unless excused by the Department. Prerequisite: junior standing. Open to declared majors and minors only. Offered yearly.

399 - Internship-1-16 S.H.

Supervised work experience designed by student, advisor and employer. Prerequisites: faculty advisor's permission and a minimum overall GPA of 2.5. Open to declared Theatre and Dance majors and minors only. Offered by arrangement. P/NC only.

437 - Dance Repertory IV-1-2 S.H.

Continuation of THAD 337. Prerequisite: THAD 337. May be repeated once. Concurrent registration in THAD 090 required unless excused by the Department. Offered each semester. Grade only.

490 - Capstone Production Project-3 S.H.

Quarter Course: 405, 425 and 435.

Full responsibility for work as a designer or performer on a Main Season theatre production or as a director in the Studio Season.

Concurrent registration in THAD 090 required unless excused by the Department. Prerequisites: THAD 307, THAD 321 and THAD 331. Open to declared Theatre majors and minors only. Offered yearly. Grade only.

495 - Theatre Senior Seminar-1 S.H.

Review, editing, organization and submission of theatre major portfolio. Prerequisites: senior standing and satisfactory completion of 35 s.h. of theatre major curriculum. Concurrent registration in THAD 090 required unless excused by the Department. Offered yearly. Grade only.

499 - Independent Studies in THAD-1-8 S.H.

Offers the advanced student an opportunity to study independently in an area of special interest. May be repeated to a total of 8 s.h. Prerequisite: instructor's permission. Offered by arrangement. Grade only.

WOMEN'S STUDIES

Minne Hall 134, (507) 457-5460

Tamara Berg, Director

Women's Studies at WSU is a multidisciplinary program that looks at the lives and experiences of women through many different disciplines - History, Art, Psychology, Economics, Literature, Sociology and Public Health, among others. Women's Studies students explore the ways in which gender shapes women's and men's identities and experiences in national global cultures. They also consider how cultural differences affect women's lives within multicultural societies.

The Women's Studies Program is committed to integrating classroom and community. Women's 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 and events that promote understanding and awareness of women's perspectives and gender-related issues among WSU students, faculty and staff. The program centralizes information relevant to Women's Studies opportunities at WSU and provides students, faculty and staff convenient access to and use of that information.

The program focuses on five major objectives:

- Promoting understanding of gender issues on campus and in the wider community
- Supporting gender-related social change activities on campus and in the wider community.
- Guidance and leadership in the process of integrating gender issues into the WSU curriculum
- Centralization of information about existing opportunities for exploring and addressing gender issues
- Coordination and administration of Women's Studies course offerings

The Women's Studies Program functions for and with all segments of WSU including Adult, Continuing Education and Extension; the Rochester campus; and the larger Winona community. The program operates in the two following areas:

1) Academic Opportunities

The program offers a Women's Studies minor composed of 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.

2) 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.

The Women's Studies minor provides students the opportunity to develop a clearer understanding of the lives and experiences of women, and the impact of gender differences on social development and experience. Women's Studies students explore the ways in which gender shapes women's and men's experiences in different global cultures and consider how cultural differences affect women's lives within multicultural societies. The Women's Studies minor also develops among students an understanding of feminism both as a body of theory and an approach to social change. Through a combination of interdisciplinary Women's Studies courses, courses in other departments, and a field experience, the Women's Studies minor prepares students to assume roles as active citizens in addressing issues shaping women's lives. Each student is required to complete a portfolio that represents and explains her/his growth and development as a Women's Studies minor.

B.A. MINOR - WOMEN'S STUDIES

23-25 S.H.

CORE COURSES (14 S.H.)

- 148 Introduction to Women's Studies (3)
- 220 Power, Privilege, and Gender (3)
- 348 Topics in Women's Studies (3)
- 420 Field Experience (3)
- 448 Senior Seminar (2)

CORE DISCIPLINARY COURSES (6-8 S.H.)

NOTE: Students take 6-8 s.h. from the following list of courses:

- AIS 350 Quality of Worklife (3)
- ART 252 Survey of Women Artists (3)
- HIST 320 Women in U.S. History (4)

- * NURS 260 Women's Health Issues (3)
- POL 450 Feminist Political Theory (3)
- * PSY 275 Intro to Psychology of Women (3-4)
- PSY 424 Women & Mental Health (3)
- WS 348 Topics in Women's Studies (1-3)

ELECTIVES (3 S.H.)

Students take 3 s.h. of courses designated as Women's Studies electives. Electives may be chosen from courses listed above that are not used to fulfill Core Disciplinary Course requirements and from a list of courses approved for Women's Studies elective credit. See the Women's Studies Program Director for an updated list.

- * Course may be used to satisfy certain General Education requirement

Women's Studies Course Descriptions

Courses offered on a Pass/No Credit Only or Grade Only basis are so designated. All courses in the minor must be taken on a Grade Only basis except internships and practicums. The P/NC option is available to non-majors unless otherwise noted.

148 - Introduction to Women's Studies-3 S.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 in various social groups, cultures and areas of the globe, and explores gender as a socially constructed category of human experience. It introduces students to feminism, both as a body of theory and as an approach to social change.

220 - Power, Privilege, and Gender

Explores the social construction of differences that lead to power and privilege in modern society. Issues of race, class, and sex and gender are considered. Offered at least once a year.

320 - Independent Readings-1-3 S.H.

This course allows students to pursue a project or topic of their own design with supervision and evaluation by instructor. Instructor's written permission is required.

348 - Topics in Women's Studies-3 S.H.

In-depth study of topics of current interest in the field of Women's Studies. Offered as needed.

373 - Feminist Theory/Process-3 S.H.

This course seeks to understand the creation and perpetuation of gender inequalities and their relation to other systems of inequality. This course seeks a broad understanding of the historical development of various strands of Western feminist thought and the range of interpretive possibilities such thought has opened up. Interdisciplinary readings investigate how feminist theory and process have affected our lives and our understanding of literature, philosophy, political science, law, science, film, history, sociology and medicine. Offered at least once a year. Prerequisites: WS 120, 220 or instructor's permission.

420 - Field Experience-3-6 S.H.

Quarter Course: 473.

The Field Experience gives students an opportunity to explore gender-related issues and the gender dimension of social issues through experiences outside the classroom; integrate practical experience with feminist analyses developed in Women's Studies courses; and develop the skills and knowledge necessary to act effectively as citizens of their communities.

448 - Senior Seminar-2 S.H.

As the capstone for the Women's Studies minor, this class requires students to review and assess their work in Women's Studies and the relationship between the minor and their major. Prerequisites: WS 148, WS 348, WS 420 and Women's Studies Minor status OR instructor's permission.

FACULTY

- Becky Abdel-Magid*, Professor, Engineering; B.S., University of Khartoum; M.S., Ph.D., University of Wisconsin-Madison; 1990 -
- Cecil Adams Jr.*, Cultural Diversity, Advisor; B.S., Southern Oregon State College; 1992 -
- Brian Aldrich*, Professor, Sociology; A.B., Lewis and Clark College; M.S., Ph.D., University of Wisconsin-Madison; 1976 -
- M.Shelly Allen*, Director, Interactive Television; B.A., Central State University; M.E.d., University of Arkansas; 1988 -
- Carol Anderson*, Dean, College of Education; B.S., M.S., University of Minnesota-Twin Cities; Ph.D., Utah State University; 1987 -
- Dawn Anderson*, Associate Professor, Health & Human Performance; B.A., University of Minnesota-Morris; M.S., Iowa State University; Ph.D., Ball State University, Muncie (IN); 1992 -
- Jeffrey Anderson*, Professor, Mathematics & Statistics; B.A., University of Minnesota, Morris; Ph.D., Iowa State University; 1992 -
- Phillip Appicelli*, Assistant Professor, Health and Human Performance; B.A., College of St. Scholastica; M.A., Ph.D., Kent State University; 1998 -
- James Armstrong*, Assistant Professor, English; B.A., Northwestern University; M.F.A., Western Michigan University; Ph.D., Boston University; 1999 -
- Theresa Arrick-Kruger*, Director, Human Resources, Affirmative Action, Sexual Harrassment Officer; B.S., Fort Wright College; J.D., St. Mary's University (Texas); M.B.A., Winona State University; 1988 -
- Marzie Astani*, Professor, Business Administration; B.A., Tehran University; M.S., Ph.D., Iowa State University of Science and Technology; M.B.A., Central Michigan University; 1987 -
- Susan Ballard*, Associate Professor, Nursing; B.S.N., University of Illinois; M.S.N., University of Minnesota-Twin Cities; Ph.D., University of Saint Thomas; 1984 -
- Mark Bambenek*, Intramural Director; B.S., M.S., University of Wisconsin-La Crosse; 1988 -
- Sara Barbor*, Professor, Management; B.A., Earlham College; M.A., Ball State University; M.B.A., Ph.D., University of Kansas; 1988 -
- Licinia Barrueco*, Resident Hall Director; B.S., Plymouth State College; 1997 -
- Kimberly M. Bates*, Assistant Professor, Biology; B.S., University of Massachusetts-Amherst; M.S., Ph.D., University of Missouri-Columbia; 1997 -
- Dennis Battaglini*, Professor, Physics; B.S.Ed., California State University of Pennsylvania; M.A.T., Ph.D., Michigan State University; 1986 -
- Judith Bautch*, Associate Professor, Nursing; B.S., University of Wisconsin-Madison; M.N., University of Washington; Ph.D., University of Wisconsin-Madison; 1997 -
- Richard Bazillion*, Dean, Library and Information Services; A.B., Boston University; M.A., Harvard University; Ph.D., University of Wisconsin - Madison; 1995 -
- Sandra Bennett*, Professor, English; B.A., Brigham-Young University; M.A., Ph.D., University of Utah; 1976 -
- Sandra Benning*, Assistant Registrar; B.S., Winona State University; 1985 -
- Charles Bentley*, Advisor/Coordinator, Adult, Continuing Education and Extension; B.A., Macalester College; M.S., Winona State University; 1968 -
- Steven Berg*, Professor; Biology; B.S., Pacific Lutheran University; Ph.D., Purdue University; 1986 -
- J. Lawrence Bergin*, Professor, Accounting; B.S., M.B.A., Northeastern University; 1981 -
- Joell W. Bjorke*, Professor, Business Administration; B.S., St. Cloud State University; J.D., William Mitchell College of Law; Ph.D., University of Western Ontario; 1981 -
- Norma Blankenfeld*, Associate Professor, Nursing; B.S.N., M.S., University of Minnesota; 1980 -
- Danning Bloom*, Professor, Physics; B.A., Illinois Wesleyan University; Ph.D., University of Colorado; 1976 -
- Kim Blum*, Senior Women's Administrator, Athletics; B.S., M.S., University of Wisconsin - La Crosse; 1997 -
- Carol Joyce Blumberg*, Professor, Mathematics & Statistics; A.B., A.M., University of Michigan; M.S., Ph.D., Michigan State University; 1987 -
- George Bolon*, Professor, Physics; B.S., M.S., Oregon State University; Ph.D., University of Utah; 1968 -
- Cynthia Bork*, Assistant Professor, Nursing; B.S.N., College of St. Theresa; M.S., Winona State University; 1993 -
- Gaylia Borrer*, Associate Professor, Counselor Education; B.S., Davis & Elkins College; M.S., West Virginia University; Ph.D., University of Iowa; 1989 -
- Barbara Boseker*, Professor, Special Education; B.S., M.A., Ph.D., University of Wisconsin-Madison; 1995 -
- Matthew Bosworth*, Assistant Professor, Political Science; BA Johns Hopkins University; M.A., Ph.D., University of Wisconsin-Madison; 1997 -
- James W. Bovinet*, Professor, Marketing; B.S. Drake University; M.B.A., D.B.A., Southern Illinois University-Carbondale; 1990 -
- Richard Bowman*, Professor, Education; B.S. Ed., M.S. Ed., Ohio University, Athens; Ph.D., University of Toledo (OH); 1995 -
- Emmanuel Brako*, Professor, Biology; B.S., Tuskegee University; M.S., Ph.D., Louisiana State University and A & M College; B.V.M., University of Nairobi; 1989 -
- David Bratt*, Professor, Theatre & Dance; B.A., Calvin College; M.A., University of Iowa; Ph.D., University of California-Santa Barbara; 1976 -
- Brian Briggs*, Associate Professor, Accounting; B.S., University of Connecticut; M.S., Northeastern University; March, 1979 -
- James Bromeland*, Associate Professor, Political Science; B.A., M.S., Mankato State University; 1971 -
- Ervin G. Bublitz*, Professor, Sociology; B.A., St. Mary's College (Minnesota); B.S., M.S., Winona State University; Ph.D., University of Utah; 1970 -
- Gary Bunce*, Professor, Computer Science/ Mathematics & Statistics; B.S., North Dakota State University; M.A., Ph.D., University of New Mexico; 1971 -
- John E. Burdick*, Professor, Social Work; B.A., Allegheny College; M.S.W., State University of New York-Buffalo; 1984 -
- Elizabeth Burke*, Professor, Social Work; B.A., St. Norbert College; M.A., St. Mary's College of Minnesota; 1979 -
- Marianna Byman*, Assistant Professor, History; B.A., Baylor University; M.S., Winona State University; D.A., University of North Dakota-Grand Forks; 1988 -
- Seymour Byman*, Professor, History; B.A., University of Illinois; M.A., Roosevelt University; Ph.D., Northwestern University; 1970 -
- John Campbell*, Assistant Professor; History; B.A., Wesleyan University; M.A., Ph.D., University of Minnesota-Twin Cities; 1996 -
- Jane Carducci*, Professor, English; B.A., Colorado College, Colorado Springs; M.A., Ph.D., University of Nevada; 1992 -
- Pauline Christensen*, Professor; Director of Graduate Studies; Adult, Continuing Education & Extension B.S., Iowa State University of Science and Technology; M.S., Winona State University; Ph.D., University of Minnesota-Twin Cities; 1973 -
- Gloria Chuang*, Assistant Professor, Music; B.M., M.M., Julliard School; D.M.A., University of Michigan; 1997 -
- Gerald W. Cichanowski*, Professor, Computer Science; B.A., Winona State University; M.S., University of Minnesota; Ph.D., Michigan State University; 1983 -
- Robert Clay*, Associate Professor, Education; B.S., Bemidji State University; M.A., University of Northern Colorado; Ph.D., Colorado State University; 1990 -
- Gretchen Cobenour*, Professor, Theatre & Dance; B.A., Rockford College; M.F.A., University of Wisconsin-Madison; 1989 -
- Susan Collie*, Assistant Professor, Communication Studies; B.S., M.S., Illinois State University; 1989 -
- John W. Collins*, Associate Professor, Social Work; B.A., Tarkio College; M.S., University of Minnesota; Ph.D., Saint Louis University; 1993 -
- Bruce Kent Cowgill*, Professor, English; B.S., Midland College; M.A., Ph.D., University of Nebraska; 1970 -
- Karen Csajko*, Assistant Professor, Political Science; M.A., Portland State University; Ph.D., University of California-Berkeley; 1996 -
- Helen Dachelet*, Assistant Professor, Sociology; B.A. in Psychology, Winona State University; B.S. in Paralegal, Winona State University; M.S. in Community Counseling, Winona State University; Psy.D., University of St. Thomas; 1996 -
- Darrin Dahl*, Residence Hall Director; B.S., University of Minnesota - Twin Cities; 1992 -
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