



**UNDERGRADUATE CATALOG
2006 - 2008**

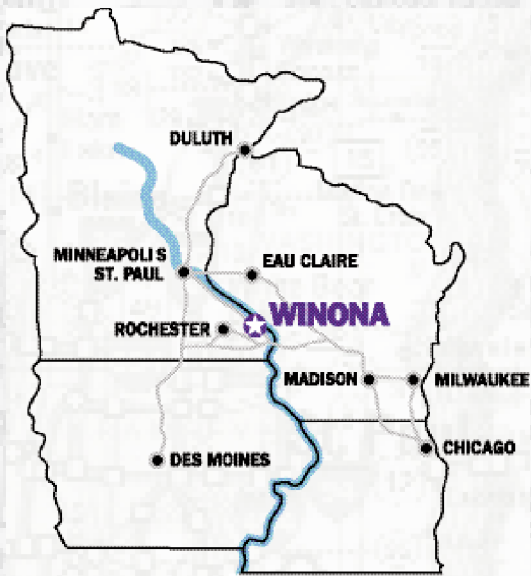
P O BOX 5838 - WINONA, MN 55987-5838

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www.winona.edu

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The University reserves the right to change any provision or requirement at any time.
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The University reserves the right to make changes of an editorial nature to correct or amend the text of this catalog.



From Minneapolis/St. Paul

Take U.S. Hwy. 61 south into Winona. Stay on 61 to Huff Street. Turn left on Huff; then take a right on Sarnia Street. Turn left onto Main Street at four-way stop. Cross the railroad tracks, go one block, turn left on Mark Street. **You are on campus.**

From the west via Interstate 90

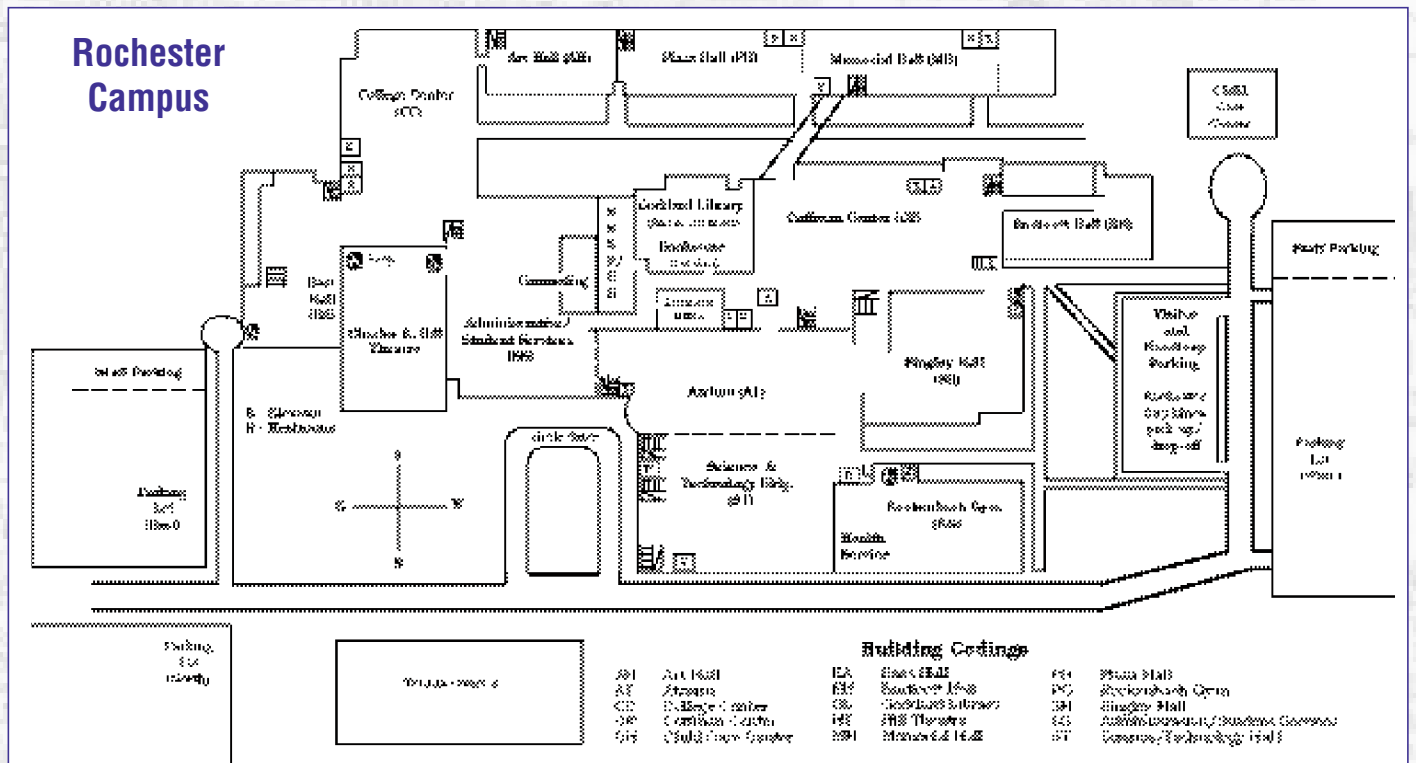
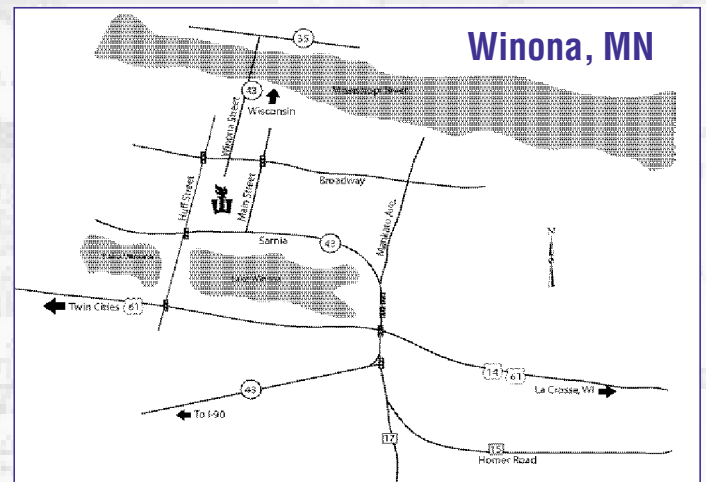
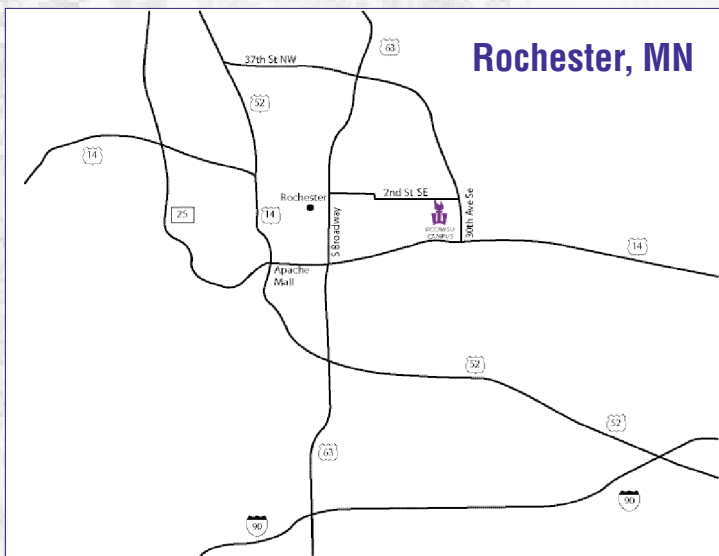
Take I-90 east to the Hwy. 43 North exit (252). Turn left on Hwy. 43, which brings you into Winona. At the stoplight, take a left on Hwy. 17 (Homer Rd.) and go to the stoplights. Turn left on U.S. Hwy. 14/61. Follow 61 to Huff Street. Turn right on Huff; then take a right on Sarnia Street at stoplight. Turn left on Main Street at four-way stop. Cross the railroad tracks, go one block, turn left on Mark Street. **You are on campus.**

From La Crosse, Madison, Milwaukee, Chicago

Take Interstate 90/94 west to La Crosse and into Minnesota. Take the "to Winona" exit on U.S. Hwy. 61 and follow into Winona. Stay on 61 to Huff Street. Turn left on Huff; then take a right on Sarnia Street. Turn left onto Main Street. at four-way stop. Cross the railroad tracks, go one block, turn left on Mark Street. **You are on campus.**

From Rochester, Owatonna, Mankato, and other communities via U.S. Hwy. 14

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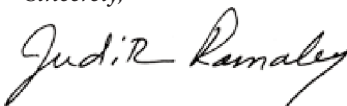
Welcome to Winona State University!

This catalog will help you plan your educational path. You will learn about our history, our mission and our most important aspiration: to be a community of learners dedicated to improving our world. Explore our academic programs and student activities. See what it is like to be a student here and understand the very special sense of place that we enjoy in Winona, along the banks of the Upper Mississippi River, and in Rochester, a thriving and growing Minnesota community.

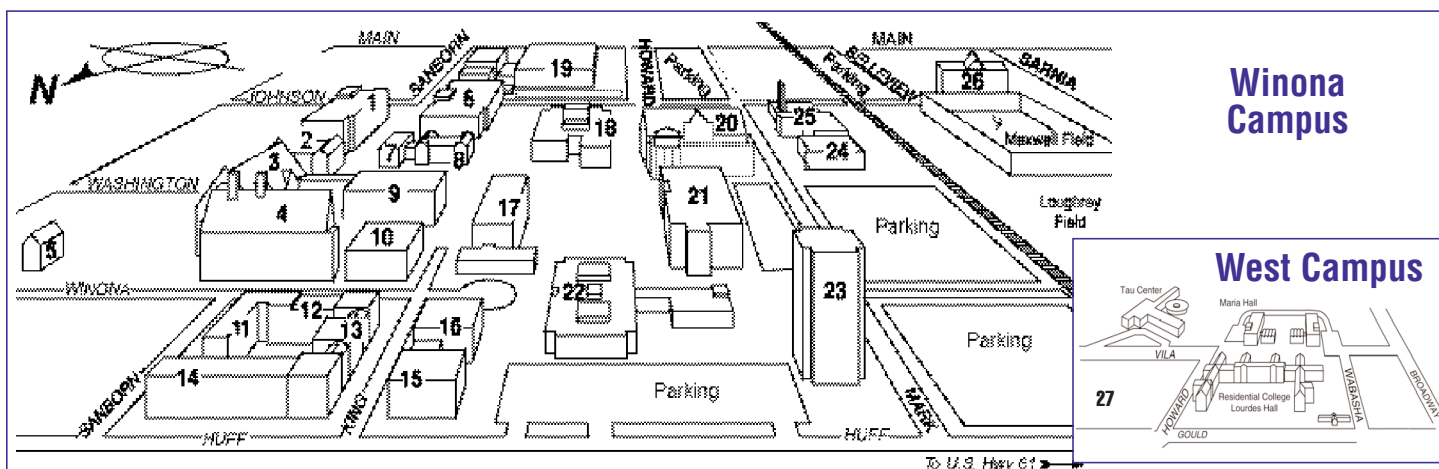
I think that you will be excited by the opportunities here. The University was founded in 1858 with high hopes for the future and a commitment, even then, to prepare students who would make the world a better place. We are serious about how we educate our students and hold ourselves to high standards as scholars and teachers. We also have high expectations for our students. We have made significant investments in our academic programs and student services to enhance your experience and create new ways for you to use what you learn in practical and meaningful ways.

The University emphasizes hands-on, collaborative education and research experiences that will prepare you for life and work in the 21st century. You will learn differently. You will learn in ways that expand your horizons. Most important to all of us, you will learn that you can make a difference in the lives of other people.

Sincerely,



Judith A. Ramaley, President



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| <ol style="list-style-type: none"> 1. Maxwell Hall: Fitness Center, Conference Center, and Children's Center 2. Student Health Services and University Archives 3. Stark Hall: College of Nursing and Health Sciences, College of Science and Engineering, Departments of Nursing and Engineering 4. Science Laboratory Center 5. Alumni House: Emeriti Center 6. Somsen Hall: College of Business and administrative offices. 7. Howell Hall: Student Support Services, television studio, Media Services, Disability Resource Center, and Interpreter Services 8. Phelps Hall: Mass Communication and Psychology 9. Pasteur Hall: Departments of Biology, Chemistry, Physics, and Geoscience 10. Watkins Hall: Departments of Computer Science and Art 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 15. Lucas Hall: Women's residence hall 16. Prentiss Hall: Men's residence hall 17. Gildemeister Hall: College of Education | <ol style="list-style-type: none"> 18. Performing Arts Center: Departments of Music, and Communication Studies, Theatre Arts and Dance 19. Memorial Hall: Departments of Health, Exercise & Rehabilitative Sciences, Physical Education and Recreation 20. Darrell W. Krueger Library 21. Minné Hall: College of Liberal Arts 22. Kryzsko Commons and Student Center 23. Sheehan Hall: Women's residence hall 24. Maintenance Building 25. Heating Plant 26. Maxwell Field at Midwest Wireless Stadium 27. West Campus <ul style="list-style-type: none"> • Lourdes Hall: Co-ed residence hall and Residential College • Maria Hall: Co-ed residence hall • Tau Center: Co-ed residence hall and conferencing facility 27. University Apartments at East Lake (not pictured): Apartment style residence complex located at the corner of Franklin and Sarnia Streets in Winona. |
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- All buildings and parking lots accessible to the handicapped. All buildings except the Alumni House (5) are equipped with elevators. Call (507) 457-5008 to pre-arrange access.

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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 (507) 457-5008.

INTRODUCTION



Winona State University is a comprehensive university that offers academically-inspired students an opportunity to obtain an education in the liberal arts and contemporary professions and to explore the application of knowledge to today's world. The University prepares students to be skilled and competent active citizens with a strong sense of personal responsibility and motivation to contribute to the communities where they live and work.

Founded in 1858 and located in the beautiful Upper Mississippi River Valley, Winona State University is built on a powerful sense of place and compassion for the human condition. The University offers distinctive graduate and undergraduate programs that reflect the special character of the communities it serves and that contribute to the quality of life in Minnesota and the region through thoughtful research, service, and unique collaborations with the community.

Winona State University prepares leaders for success in the 21st century by fostering the ability to apply knowledge to find solutions to complex and ever-changing problems. Winona State University is a *community of learners dedicated to improving our world.*

HISTORICAL VIEW

Winona State University was founded in 1858 when the first Minnesota State Legislature established normal schools "to prepare teachers for the common schools of the state." The first tax-supported school west of the Mississippi River was established at Winona to train teachers for the new frontier. Citizens of Winona quickly showed their support with donations of more than \$7,000 in money and land.

Classes began in 1860; however, the school closed for nearly three years during the Civil War. It reopened in November 1864 to continue its mission of preparing teachers for the new State of Minnesota. Construction of the school's first building was approved and completed in 1866, and classes were held in Main Hall by 1869.

Phelps Hall opened in 1909 with a kindergarten teaching lab, gymnasium, and library. The State Normal School became Winona Teachers College in 1921 and was authorized to grant the bachelor's degree. In 1926, four students, two men and two women, graduated with the 4-year teaching degree. From the 1920s until World War II, significant curriculum changes enhanced the academic quality of teacher education. New courses were added, and departments emerged to organize a growing institution. Intramural and extramural athletics, social organization, and co-curricular activities grew with the student population.

The boom following World War II saw rapid growth. In 1957, the institution became Winona State College; this new name reflected an expanded mission, which included the addition of Bachelor of Arts, Master of Science in Education, and Associate in Arts degrees. In 1975, the school became Winona State University.

Today, the University is structured into five colleges spread across three campuses in Winona and Rochester. It is a member of the Minnesota State Colleges and Universities system. The original Main campus and the West campus in Winona primarily serve traditional students; the Rochester campus focuses on non-traditional students, graduate programs, and the Institute for Lifelong Education.

Winona State University- Rochester Center

Since 1917, Winona State University has served students in Rochester and the surrounding area. In 1993, the University collaborated with the University of Minnesota and Rochester Community and Technical College to establish the University Center at Rochester (UCR). UCR offers degree programs from the associate through doctoral level. Since its inception, over 5,000 bachelor's and master's students have graduated from UCR programs.

On an annual basis, the WSU-Rochester Center serves 2,000 students. Approximately 40 resident faculty and an additional 20 Winona campus faculty are dedicated to the Rochester Center each academic term. Because of its Rochester location, UCR offers unique opportunities to collaborate with IBM Corporation, Mayo Clinic, and the Rochester School District, offering specialized programs in computer science, healthcare, and education.

WSU CAMPUSES

Three campuses make up Winona State University: the original Main Campus in Winona, the West Campus in Winona, and the Rochester Center in Rochester.

Main Campus

The original Main Campus provides a serene, yet stimulating collegiate environment in the heart of the city of Winona. Tree-lined walkways, fountains, prominent sculpture, and benches invite students and visitors to a learning community in tune with the natural beauty of southeast Minnesota.

The Main Campus provides students ample facilities for educational activities that combine traditional charm with convenience and state-of-the-art technology. All academic buildings are extensively wired for computer access. Most classrooms are equipped with data projection systems and a control station that gives instructors easy access to campus and Internet resources. As one element of the WSU Laptop Program, many classrooms also offer a data and power connection for each student.

In recent years, WSU has aggressively upgraded facilities and added new buildings specifically designed to support its academic initiatives. Recent enhancements include:

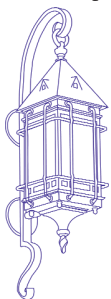
- Science Laboratory Center: Provides 118,000 square feet of space to support the sciences, engineering, nursing and allied health sciences, geographic information systems, and science teaching preparation. (Completed in 2004)
- Pasteur Hall: Extensive renovation to provide state-of-the-art dry laboratory, classroom, and office space to support the sciences. (To be completed Fall 2006)
- Darrell W. Krueger Library: Holds more than 248,000 volumes, nearly 2,000 journals, and over 1 million microfilm documents. It is one of three libraries designated as a "Hi-Tech Gateway" by the American Library Association. (Opened in 1999)
- Kryzsko Commons: Serves as the student center with dining facilities, lounge and recreation areas, and space for student organizations and

meetings. It is currently undergoing an extensive expansion and renovation to increase meeting room space and allow for additional food venues. (To be completed Fall 2006)

- Ten residence halls, including the University Apartments at East Lake, which is a 100-apartment complex. (Completed in 2003)

West Campus

The West Campus is located about one mile from the Main Campus. West Campus is home to the Residential College, which is located in



Lourdes Hall, Maria Hall, and the Tau Center. The Residential College offers a unique living and learning experience with a strong sense of community. Students can take classes, meet with professors, and enjoy cultural experiences on the West Campus while still actively participating in university life on the Main Campus.

The grand Lourdes Hall includes residential, dining, and recreational space. The Tau Center offers 120 completely wired single rooms and conference space with picturesque views of the bluffs and a peaceful setting by Gilmore Creek.

Rochester Center Campus

The Rochester Campus offers modern classrooms and study spaces in the University Center Rochester (UCR) located on the eastern edge of the city of Rochester. Housed in a modern, integrated building with the University of Minnesota and Rochester Community and Technical College, UCR features modern classroom facilities, including several “smart” rooms. State-of-the-art computing capability links UCR students with the Winona campuses and the world.

WSU students have access to the UCR Goddard Library with 57,000 volumes, a computer lab, and a laptop rental center. The College Center includes a cafeteria and snack bar and lounge areas. The UCR also includes a newly constructed fitness and recreation center with indoor courts and a running track.

THE COMMUNITIES

Winona

The city of 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. Once one of the Midwest's wealthiest cities because of its location on the river, Winona enjoys a rich legacy of historic buildings and vintage homes. The Main Campus and the West Campus are located in the heart of the city, giving students convenient access to shopping, recreation, social activities, and community resources. Additional cultural opportunities are available in La Crosse, Wisconsin (30 miles away), Rochester (45 miles away), and Minneapolis-St. Paul (120 miles away).

In addition to WSU, the city of Winona is home to two other institutions of higher education: Saint Mary's University of Minnesota and Minnesota State College-Southeast Technical. WSU cooperates with these institutions, as well as institutions throughout the Minnesota State Colleges and Universities system and the University of Minnesota, to enrich the educational and cultural opportunities for students at all institutions by sharing their programs and resources.

Rochester

WSU-Rochester Center is located on the eastern edge of the city of Rochester. Located in a cosmopolitan city of over 100,000 residents, Rochester is consistently branded as one of “America's most livable cities.” Rochester is home to the world renowned Mayo Clinic and the largest IBM Corporation facility under one roof. The city offers extensive cultural, dining, shopping, recreational, and sports opportunities; it has the second largest airport in Minnesota.

In addition to UCR, several other institutions offer programs in Rochester, including Saint Mary's University, Augsburg College, and the Mayo School of Health Sciences.

ACADEMIC MISSION AND GOALS

Winona State University is an exemplary arts and sciences institution with select professional and graduate programs anchored in a general education core. With an enrollment of approximately 7,600 undergraduate and graduate students, WSU is a mid-sized public university committed to small class sizes and challenging, rigorous academic standards.

Faculty and administration are involved with students, facilitate cooperative and active learning, and provide prompt respect for 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 disciplinary expertise, enabling them to pursue careers or to 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 learning experiences occur outside the classroom. Therefore, the University is committed to building and maintaining a caring community. 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, the University community respects diversity and collaborates to resolve issues that affect all. We celebrate our common successes and our distinctive heritage.

The University is committed to measuring results against self-defined and national standards. Through this ongoing assessment, in which students, faculty, and staff participate, WSU will continuously improve and establish accountability for results. Thus, Winona State University reaffirms its social contract to provide educational benefits to the people of Minnesota, the nation, and the world.

ACADEMIC PROGRAMS

Five distinct colleges comprise the University: College of Business, College of Education, College of Liberal Arts, College of Nursing and Health Sciences, and the College of Science and Engineering. Through these colleges, Winona State University offers seven master's degree programs, 64 undergraduate degree programs, 10 pre-professional programs, and several licensure and specialist degree programs.

All programs are offered by highly qualified faculty in an environment committed to a love of learning and student service. Approximately 400 faculty members dedicate themselves to delivering rigorous academic programs while maintaining “small school closeness.” Classes average 25 to 30 students; the student-faculty ratio is 21:1.

ACCREDITATIONS AND MEMBERSHIPS

Winona State University is accredited by the following organizations:

- Accrediting Board for Engineering (ABET)
- Commission for Accreditation of Allied Health Education Programs
- Commission on Collegiate Nursing Education (CCNE)
- Council of Accreditation of Counseling and Related Educational Programs (CACREP)
- Council on Social Work Education
- Higher Education Commission of the North Central Association of Colleges and Schools (NCA)
- National Association of Schools of Music (NASM)
- National Association of Schools of Theatre (NAST)
- National Council for the Accreditation of Teacher Education (NCATE)

Winona State University is recognized by the following organizations:

- Association for the Advancement of Collegiate Schools of Business (AACSB)
- Association for Childhood Education International (ACEI)
- Council for Exceptional Children (CEC)
- National Association for the Education of Young Children (NAEYC)
- National Council for the Social Studies (NCSS)
- National Council of Teachers of English (NCTE)
- National Council of Teachers of Mathematics (NCTM)

Winona State University programs are approved by:

- American Bar Association (Paralegal Program)
- American Chemical Society
- Minnesota Board of Nursing (Undergraduate Nursing program)
- Minnesota Board of School Administrators
- Minnesota Board of Teaching

DEGREES AND PROGRAMS

Bachelor of Arts Majors

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

Bachelor of Science Majors (Non-Teaching)

Accounting
Biochemistry
Biology
Business Administration
Chemistry
Composite Materials Engineering
Computer Science
Cytotechnology
Exercise and Rehabilitative Science
Finance
Geoscience
Health Promotion
Human Resources Management
Management Information Systems
Marketing
Mathematics
Medical Technology
Music
Nursing
Paralegal
Physics
Public Administration
Recreation, Tourism, and Therapeutic Recreation
Social Work
Sociology: Criminal Justice

Bachelor of Science Majors (Teaching)

Art
Biology Life Science
Business Education
Chemistry
Communication Arts and Literature
Earth Science
Elementary Education with Early Childhood Emphasis
French
German
Health Promotion
K-6 with Middle Level Communication Arts and Literature 5-8
Specialty
K-6 with Middle Level Mathematics 5-8 Specialty
K-6 with Middle Level Science 5-8 Specialty
K-6 with Middle Level Social Studies 5-8 Specialty
Mathematics
Music
Physical Education
Physics
Social Science/History
Spanish
Special Education

Two-Year Undergraduate Associate in Arts

Special Licensure Programs

Developmental/Adapted Physical Education

Pre-Professional Sequences

Pre-Dentistry
Pre-Engineering
Pre-Law
Pre-Medicine
Pre-Optometry
Pre-Pharmacy
Pre-Physical Therapy
Pre-Physician Assistant
Pre-Podiatry
Pre-Veterinary Medicine



ADMISSIONS

Office of Admissions

Somsen Hall, Room 106 (800 DIAL WSU or 507-457-5100)

<http://www.winona.edu>

E-mail: admissions@winona.edu

The Office of Admissions is responsible for recruiting potential students to WSU, evaluating and approving applications for admissions, recommending newly admitted students for scholarship aid, facilitating student transfer to WSU from other post-secondary institutions, evaluating international transcripts for WSU equivalency, and verifying eligibility for veteran's assistance.

CAMPUS VISITS

Anyone interested in WSU is welcome to visit the campus at any time; tours begin in the Office of Admissions. When school is in session, student-conducted tours are available at 9 A.M. and 1 P.M. Monday through Friday. Tours are also offered at 10 A.M. on selected Saturdays from September through January (except holidays). Summer tours also are available. For more information or to request materials, contact the Office of Admissions at the telephone number or web address above or via the U.S. mail at:

Winona State University - Office of Admissions

P. O. Box 5838

Winona, MN 55987-5838

ADMISSION REQUIREMENTS AND PROCEDURES

Students can apply for admission for either semester during the academic year. WSU requires students applying for admission to meet certain entrance requirements. A student's ACT and SAT scores are factored into the admission decision for students who come directly from high school or who do not have a class rank. The ACT is required for registration to assist in placement and advising.

Even if they have not graduated from high school, students can be considered for admission if they have a High School Equivalency Certificate based on successful completion of the GED test, if they achieved an acceptable score on one of the college entrance examinations.

High School Preparation Requirements

To be considered for admissions to WSU, students must have completed the following high school curriculum in grades 9-12:

- 4 years of English (includes composition, literature and speech).
- 3 years of mathematics 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); and computers.

New First-Year Students

Students coming directly from high school may apply as outlined below. Applicants are encouraged to submit all admissions material as early as possible during their senior year. For the past several years, WSU has closed new student admissions for the next fall semester by late January.

1. Complete a WSU Admission Application.
2. Return the completed application to the WSU Office of Admissions with a \$20 non-refundable fee.
3. Request that your official high school transcript be forwarded to the Office of Admissions; the transcript should include high school rank and admission test score.

Alternatively, students coming directly from high school may initiate the application request to WSU when they take their ACT, using ACT-APP. Students who achieve appropriate scores on the ACT and who indicate WSU (2162) as a choice are sent a WSU Admission Application. Prospective students may also obtain information about WSU and/or apply for admissions on the WSU website.

Types of Admission

Depending on their class rank, ACT/SAT scores, and high school curriculum, students are awarded either distinctive or university admission status at WSU.

- **Distinctive Admission:** Students are admitted with distinction if they rank in the upper 15 percent of their high school graduating class and have an ACT score of 26 or above or an SAT score of 1100 or above and have completed the 16 units of high school preparation requirements. Students admitted with distinction attend an orientation and registration program during the late spring preceding their first year at Winona State University.
- **University Admission:** Students are admitted with university admission status if they have an ACT score of 21 or above or an SAT score of 1000 or above and have completed the 16 units of high school preparation requirements. Students who score an 18, 19, or 20 composite on the ACT must also be ranked in the top 50% of their graduating class. Students admitted with university admission status attend an orientation and registration program during the mid-summer preceding their first year at Winona State University.

Post-Secondary Enrollment Options Program

Students who have completed the 10th grade may be considered as applicants if they are currently enrolled in high school and have demonstrated an unusually high ability and/or achievement and are recommended by a high school counselor or principal. To be eligible, high school juniors must be in the top 15 percent of their class or have an ACT of 26 or higher; seniors must be in the top 25 percent of their class or have an ACT of 25 or higher.

Placement Tests for New Students

All new students must take the English and mathematics placement exams before enrolling in an English composition or mathematics course. Transfer students who have credit for college-level English and/or mathematics are exempt from this requirement. Placement tests are offered regularly before all registration periods. Information about specific dates, times, and locations of exams is available at the Advising and Retention Center (Phelps Hall, Room 129; 507-457-5600) and at www.winona.edu/advising.

TRANSFER STUDENTS Preparing for Transfer to WSU

Minnesota's technical colleges, community colleges, and universities are working to make transfer easier. Students can help by planning ahead, asking questions, and using pathways created by transfer agreements. Students who are enrolled in a college or university should first discuss their plans with a campus transfer specialist on their own campus. Whether currently enrolled in school or not, a student considering transfer to WSU should:

1. Contact the WSU Office of Admissions and consult the Minnesota Transfer website at www.mntransfer.org. The student should ask for the following materials and information:
 - Transfer brochure and application.
 - Information about admission 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).
2. After reviewing the materials, make an appointment to visit with a transfer counselor specialist at Winona State University. Be sure to ask about course transfer and admission criteria.

Applying to WSU for Transfer Admission

1. Students should submit a transfer application and \$20 application fee as early as they can before the deadline, which is one month prior to the semester in which the student expects 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. WSU does not make an admission decision until all the required documents are on file.
3. An evaluation of credits that will transfer will be enclosed with the acceptance letter. The degree audit tells students which courses transferred and which courses did not transfer.
4. Students who have questions about the evaluation degree audit should contact the Office of Admissions and ask to speak with a transfer specialist. Many concerns can be eliminated if students understand why decisions were made. Students can appeal if they are not satisfied with the evaluation.

WSU Admission Requirements for Transfer Students

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:

- Students are admitted if they have completed 24 transferable academic semester hours and have a cumulative 2.40 GPA for all colleges attended.
- Students may be considered for admission to WSU if they have completed 24 transferable academic semester hours and have a cumulative GPA of 2.20 to 2.39 for all colleges attended. Students who meet these criteria must visit the campus and interview with a transfer specialist.
- Students with fewer than 24 transferable credits must meet the admission criteria for first-year students, including high school preparation requirements, class rank, and admissions test scores.
- Students receive credit for courses taken at accredited institutions in which the grades A, B, C, D, P, or the equivalents were attained.
- Students also may be considered for admission by special appeal if they are transfer students who do not meet the above requirements because of special and unique circumstances. See information about the appeals process on page 7.

Transfer students should be 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 WSU Office of Admissions. Students are subject to suspension if they fail to comply with the transcript requirement and are inadvertently admitted to WSU.

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, a student must take 64 semester credits from a four-year institution. If students have a total of 64 semester credits earned at a community college, any credits exceeding those 64 semester credits are not counted toward the 128 credits required for a WSU baccalaureate degree. Transferred credits should have at least a "D" grade to transfer.

Technical College Students

WSU will accept a 16-credit general elective package of technical courses offered by institutions with appropriate regional accreditation. General education courses will be accepted on a course-by-course basis above the 16-credit maximum for technical courses. Students should see a transfer specialist for more information, particularly if they are interested in transferring credits from technical colleges.

Students are considered transfer students if they are entering WSU from a technical college. To apply, students must request that their official high school and technical college transcripts as well as the appropriate admission test scores be forwarded to WSU's Office of Admissions. Some departments may offer transfer credit for technical classes that apply to a program of study. Students can obtain a special form to facilitate the process.

Some departments have higher standards for admission into their majors, and students may need to file special applications for those majors. Students should consult departmental sections of this catalog and contact academic departments for more detailed information.

Rights as a Transfer Student

Students have the right to:

- A clear, understandable statement of an institution's transfer policy.
- A credit review and an explanation of why credits were or were not accepted.
- A review of their eligibility for financial aid or scholarships.
- A copy of the formal appeals process. Usually the appeals procedure consists of:
 - a. Students submit a completed appeals form. Students are encouraged to attach supplemental information such as a syllabus, a course description, or a reading list.
 - b. A department or committee reviews the appeals form.
 - c. Students receive notification, in writing, of the committee's decision.
 - d. Students then have the option of appealing the decision to the Vice President for Academic Affairs (Somsen Hall, Room 211).

University Studies and the Minnesota Transfer Curriculum

The Minnesota Transfer Curriculum is a cooperative transfer program in which all the public colleges and universities in Minnesota participate. If a new transfer student's former school certifies that he or she has

completed all ten areas of emphasis of the Minnesota Transfer Curriculum, he or she is deemed to have satisfied the general education requirements of her or his new school. The ten areas of emphasis are written and oral communication; critical thinking; natural sciences; mathematics/symbolic systems; history and the social/behavioral sciences; humanities—the arts, literature and philosophy; human diversity; global perspective; ethical and civic responsibility; and people and the environment. Information about the Minnesota Transfer Curriculum is available online at www.mntransfer.org.

If the former school of the student transferring into Winona State University certifies that she or he has completed some, though not necessarily all, of the ten areas of emphasis of the Minnesota Transfer Curriculum, the student will be deemed to have satisfied WSU University Studies.

WSU's physical development and wellness basic skill category has no corresponding Minnesota Transfer Curriculum area of emphasis. Students transferring to Winona State University will not be deemed to have completed this requirement unless the schools from which they transfer certify completion of the entire Minnesota Transfer Curriculum.

INTERNATIONAL STUDENTS

Director of International Services
Kryzsko Commons, Room 130 (507-457-5303)
intrec@winona.edu

Prospective international students who will hold F-1 visa status are welcome to apply to Winona State University. Applicants should request the necessary application information from the Office of International Services (address shown above). Students who are not U. S. citizens must satisfy all WSU application procedures as follows:

1. Submit a completed WSU International Admissions Application with fee. The Office of Admissions encourages students who are non-U.S. citizens to complete the application process three months before the first day of class for the semester in which studies are to begin. Submitting application material early allows the application to be processed correctly and lets University officials more effectively plan the required orientation programs for international students.
2. Include official, certified academic credentials, verifying the completion of previous educational studies; this document(s) must include official mark sheets from all schools attended.
3. Request that the TOEFL score be forwarded to the WSU Office of International Services (The TOEFL score must meet the minimum of 173 on the computerized version or 500 on the paper version for undergraduate students. A score of 575 is required for graduate students.)
4. Include a financial support statement that presents proof of financial responsibility for the full course of study. WSU provides specific financial support forms for this purpose.

International students should be aware of the following information regarding admission to the University:

- Failure to supply official mark sheets/certified true copies from all schools previously attended is considered fraud and grounds for canceling admission or enrollment to the University.
- The financial support statement submitted during the admission process is scrutinized carefully because very little financial aid is available to students who are not U.S. citizens. Upon enrollment at the University, all financial obligations, including tuition, fees, room and board, laptop program and health insurance must be paid by the due date.
- In most cases, immigration regulations prohibit students, from applying for or accepting employment outside the campus community.
- WSU cannot assume responsibility for emergency situations, which may arise while international students are attending the University.
- WSU requires international students to have health insurance; in most instances, this insurance must be purchased through the University.
- The University also requires all F-1 visa holders to complete an on-campus English placement exam unless the student is transferring to WSU with English composition credits, which are accepted by the University. The English test, administered during orientation week, determines the appropriate English placement.
- Cross-cultural scholarships are available to many students. Based on the TOEFL score, Presidential Honor Scholarships are available to students who come to the University as freshman with no transfer credits. To request additional information, contact International Services.

International students must report to the Office of International Services upon arrival on campus. International students are also required to be enrolled for a minimum of one academic year prior to being given permission for transfer to another institution.

Returning Students

WSU students who have not attended the University for one semester or more (summer excluded) are classified as returning students. Returning students must complete the Intent to Return form, which is available in the Registrar's Office (Somsen Hall, Room 114). The Registrar's Office then evaluates the student's record for possible re-admission.

Students are considered to be returning transfer students if they have attended another college or university (summer excluded) since they last attended WSU and they intend to take further coursework at WSU. Official transcripts are required for all college/university attendance. Returning transfer students must complete the WSU Application for Transfer and Returning Transfer Admission, which is available in the Office of Admissions. The Office of Admissions evaluates the transcripts for possible re-admission.

Returning students who have been academically suspended should refer to page 26 for guidelines concerning re-admission under the University's suspension policy. Under some circumstances, a returning student may petition to have a portion of the student's prior WSU transcript set aside and the GPA recalculated. See page 26 concerning the academic pardon policy.

Undergraduate Special Students

Students are classified as undergraduate special students if they are taking undergraduate courses for enrichment, general interest, transfer to another school, or if they have no intention of earning a degree at WSU. Applicants must (1) file an Undergraduate Special Enrollment form; (2) submit a \$20 non-refundable application fee (if they have not attended WSU and paid the fee previously); (3) submit transcripts of previous college work or a Statement of Good Standing for those students who want to transfer credits to their "home" university or college. Admissions decisions are based on the same standards established for students coming directly from high school and for transfer students.

Post-Baccalaureate Students

Students are classified as post-baccalaureate students if they have a baccalaureate degree and are taking additional undergraduate courses to satisfy a second major, minor, or certificate. Applicants must submit the following to the Office of Admissions:

- A Post-Baccalaureate Application
- A \$20 non-refundable application fee (unless they have attended WSU and paid the fee previously)
- Transcripts of previous college work and proof of baccalaureate degree

NON-MATRICULATED UNDERGRADUATE STUDENTS

Outreach and Continuing Education Department
Somsen Hall, Room 109 (507-457-5080)

The Non-Matriculated Undergraduate Student Program lets adults who are not seeking a degree take undergraduate classes on campus without going through the formal admission procedure. To participate in the program, the applicant 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 Outreach and Continuing Education Department office for more information.

APPEALS PROCESS

First-year applicants coming directly from high school who do not meet the admission requirements because of special and unique circumstances may be considered for admission by special appeal. If



unusual circumstances exist, the student should first complete the regular application process. Then, if the student is denied admission to the University, he or she should write a letter of appeal to the Director of Admissions. This letter should outline the unique circumstance and should be supported by appropriate documentation and two letters of recommendation.

VETERANS ASSISTANCE

Veterans Assistance Office
Somsen Hall, Room 106 (507-457-5109)

WSU is approved by the State Approving Agency for Veterans Training. Students should present their eligibility certificates to the Veterans Assistance Office when they enroll.

Policies and Procedures

1. Students' application for veterans' benefits can be submitted through the county Veterans Service Office or through WSU. Along with the application, students must submit 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 forms to the Veterans Office (after they have been admitted to the University). Enrollment for full-time students is usually 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 have an interruption in their course of training.
6. Veterans with Dependents: The Veterans Administration (VA) 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 Veterans Services Officer can help expedite this procedure.
7. Re-enrollment: Students can re-enroll without a new Certificate of Eligibility. They must notify the WSU 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 veterans. Contact the WSU Veterans Assistance 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 AARTS or SMARTS transcript 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.

ADVANCED PLACEMENT

Office of Admissions
Somsen Hall, Room 106 (507-457-5100)
E-mail: admissions@winona.edu

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

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

Counseling Center
Gildemeister Hall, Room 132 (507-457-5330)
P O Box 5838, Winona, MN 55987

CLEP is a national examination program operated by the College Entrance Examination Board. It is designed to measure college-level achievement and factual knowledge acquired through non-traditional methods of study. Tests are administered at designated testing centers. Academic departments make the decision about participation in CLEP.

Students may be granted advanced standing by successfully completing CLEP offerings. Examinations may be taken in the following areas:

CLEP EXAMINATION

General Examinations:

English composition
Social sciences and history
Natural science
Humanities
Mathematics

WSU CREDIT FOR

English (ENG) 111
Social Science credits in University Studies
Natural Science credits in University Studies
Humanities credits in University Studies
Mathematics (MATH) 100

Subject Examinations:

Introductory sociology	Sociology (SOC) 150
Introductory psychology	Psychology (PSY) 210
American government	Political Science (POLS) 120
Principles of microeconomics	Economics (ECON) 201
Principles of macroeconomics	Economics (ECON) 202
College algebra/trigonometry	Mathematics (MATH) 120

For more information about the CLEP process and testing sites, contact the Counseling Center.

CORRESPONDENCE COURSES

WSU does not offer correspondence courses. The University accepts correspondence courses from accredited colleges and universities.

PROOF OF IMMUNIZATION

Minnesota Law (M.S. 135A.14) requires that all students enrolled in public or private post-secondary school in Minnesota be immunized against diphtheria, tetanus, measles, mumps and rubella—allowing only for certain specified exemptions. See “Student Health Service” on page 33 for more information about the requirements related to immunizations and medical history.

TUITION AND FEES

Office of Student Accounts
Somsen Hall, Room 104 (507-457-5075)

TUITION

For the fall and spring semesters, undergraduate tuition for full-time students (12-18 credits) on the Winona campus and the Outreach and Continuing Education department is billed at a flat rate. Tuition for full-time students who are Wisconsin residents is also billed at a flat rate. Tuition for classes on the Rochester campus is billed on a per-credit basis (except for Wisconsin residents). All summer session courses and graduate courses are charged on a per-credit basis. To view current tuition and fees, go to www.winona.edu/billing.

ESTIMATED FEES

Note: All fees are subject to change.

Application Fee: A non-refundable fee of \$20 is required with any application for admission. Students who have previously been admitted to WSU and paid the application fee are not subject to this fee when they return to WSU.

Athletics Fee: The athletics fee is assessed to all students attending classes through the Winona and Rochester campuses. A committee consisting of members of the student senate and university administration determines the rates and the distribution of funds.

Course Fees: Course fees are assessed to all students attending courses that have additional course fees indicated in the class schedule. Rates are determined by the department chairperson and approved by the dean and the Vice President for Academic Affairs. Departments use course fees to pay for costs not normally incurred in everyday instruction (e.g., greens fees for a golfing course or a transportation fee for courses with a field trip component).

Health Service Fee: The health service fee is assessed to all students attending classes through the Winona campuses. A committee consisting of members of the student senate and university administration determines the rates and the distribution of funds.

Incidental Fees: Several small fees arise from non-course related matters such as health service, credit by examination fees, ID card replacement fees, parking permits, and library fines.

Insurance: Health insurance is available to all full-time students. Further details are available in the Counseling Center (Gildemeister Hall, Room 132).

Laptop Program Fee: Effective Fall 2004, all full-time students, including transfer students, are required to participate in the Laptop Program regardless of the number of completed credits. (Students are considered to be full-time if they are enrolled in 12 semester hours or more.)

Students are required to continue in the program until they graduate or leave WSU. Part-time students are not required to participate in the laptop program; however, they can pay the laptop fee and receive a laptop computer. Please consult with the Office of Admissions or the Office of Student Accounts for current information. Complete information on the laptop program is available at <http://www.winona.edu/tsc/programlaptop.htm>.

Late Payment Fee: Payment in full for all tuition, fees, and residence hall charges must be paid by the payment due date published in the current class schedule (at www.winona.edu/class_schedule). Any payment accepted after the payment due date will be assessed a late fee. Students are expected to pay all accounts to the University when they are due. Failure to receive a fee statement does not release the student from payment obligations. The University is authorized to withhold the issuance of diplomas and official transcripts of credits and to deny students further registration until all money due the University has been paid.

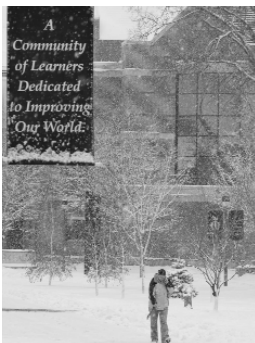
MSUSA Fee: The MSUSA fee is assessed to all students attending classes for college credit. The rates are determined by the Minnesota State University Student Association (MNUSA) and the state board office. Funds are used by the Minnesota State University Student Association.

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.

Student Life Fee: The student life fee is assessed to all students attending classes through the Winona and Rochester campuses. A committee consisting of members of the student senate and university administration determines the rates and the distribution of funds. Areas receiving funds include the student senate, university clubs, and the *Winonan*.

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.

Union Facility Fee: The union facility fee is assessed to all students attending classes through the Winona campuses. 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.



REFUND POLICY

If a student's course schedule is reduced for the convenience of the University, the tuition shall be adjusted without penalty. Students who drop classes must inform the Registrar's Office using the official drop procedures (see page 16).

A student who withdraws from the University should obtain an Application for Refund form from the Registrar's Office (Somsen Hall, Room 114). See page 27 for other considerations and implications of withdrawing from the University. Students who withdraw from the University or who drop one or more credits will receive a tuition refund according to the refund schedule that follows; refunds on activity fees will be calculated on the same basis as tuition.

Refunds are not given for textbooks and materials. Used books may be sold at the University Bookstore during the last week of each term.

WSU TUITION REFUND SCHEDULES

TERMS AT LEAST 10 WEEKS IN LENGTH:

Withdrawal Day	Withdrawing	Credit Drops
Up to and including 5th 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 OF 3 TO 10 WEEKS IN LENGTH:

Withdrawal 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 FEWER THAN 3 WEEKS IN LENGTH:

Withdrawal 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

	Withdrawing	Credit drops
Prior to session beginning	100%	100%
After session has begun	None	None

ESTIMATED TEXTBOOKS

Textbooks costs range between \$300 and \$450 per term. Books can be purchased at the WSU Bookstore or other locations.

ESTIMATED ROOM AND BOARD

Payments for residence hall services and meal services are made each semester. Current information about the cost of room and board can be found at www.winona.edu/billing. For general information, see "Housing and Dining" on page 14.

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. Students can get information about regulations and criteria that determine their residence status from the Office of Admissions (Somsen Hall, Room 106).

If a student is initially classified as a non-resident but believes that he/she has achieved residency, the student can request a change of status by filing a State of Residence form with the Office of Admissions.

Wisconsin, North Dakota, and South Dakota Tuition Reciprocity

Undergraduate or graduate students who live in Wisconsin, North Dakota, or South Dakota can submit the Student Application for Resident Fee Status form, which provides them with a tuition rate similar to what their home state charges. All high schools in Wisconsin, North Dakota, and South Dakota have the necessary form; the form is also available in the WSU Office of Admissions. Approval is granted for one year and is effective as long as the student is enrolled each semester (summer sessions are excluded). Students must re-apply for reciprocity tuition if they leave WSU for more than one academic year.

Midwest Student Exchange Program: Kansas, Michigan, Missouri, and Nebraska

For students who are residents of Kansas, Michigan, Missouri, or Nebraska, the tuition rate is 150% of the resident rate. The rate represents a typical savings of over \$2,000 per year for undergraduate students.

UNDERGRADUATE STUDENTS: ESTIMATED TOTAL MIIMUM EXPENSES

All amounts shown are estimates and are subject to change at any time. Actual rates are published on the WSU website at: www.winona.edu/billing/FeeInformation.htm

	2006-2007 Resident Per Semester	2006-2007 Non-Resident Per Semester	2007-2008 Resident Per Semester	2007-2008 Non-Resident Per Semester
Tuition (16 semester hours)	\$ 2,590.00	\$ 4,665.00	\$ 2,720.00	\$ 4,900.00
Laptop Program	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00
Fees	\$ 385.00	\$ 385.00	\$ 405.00	\$ 405.00
Residence Halls-Board & Room	\$ 2,870.00	\$ 2,870.00	\$ 3,010.00	\$ 3,010.00
Estimated Total	\$6,345.00	\$8,420.00	\$6,635.00	\$8,815.00

FINANCIAL AID

Student Financial Aid Office
Somsen Hall, Room 108 (507-457-5090)

The Student Financial Aid Office can provide students advice and counsel about their long- and short-term plans for financing their education. Students who are entering WSU for the first time or who are transferring to WSU may contact the Director of Financial Aid for information about loans, scholarships, grants, and part-time employment. (See page 8 for general information about tuition, fees, and other financial information. To view current tuition and fees, go to www.winona.edu/billing.)

In general, financial aid administered by the University is awarded after applicants meet eligibility criteria and establish need. A student 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. Awards are usually made for one academic year and are disbursed at the beginning of each semester.

STUDENTS' RIGHTS AND RESPONSIBILITIES

Students have the right to know:

- The cost of attendance.
- The refund policy for students who withdraw.
- What financial assistance is available from federal, state, and institutional sources.
- Procedures and deadlines for submitting applications for financial aid.
- How financial aid recipients are selected.
- How financial aid eligibility is determined, including all resources the Financial Aid Office considers available to the student.
- How and when funds will be disbursed.
- An explanation of each type of award received.
- For any student loan received: the interest rate, total amount to be repaid, when repayment begins, the length of the repayment period, and the cancellation or deferment provision of the loan.
- For any work study job: a description of the job, the hours to be worked, the rate of pay, and how and when they will be paid.
- The criteria used to determine satisfactory academic progress for financial aid purposes.

Students are responsible for:

- Reading directions thoroughly, completing all application forms accurately, and complying with any deadlines.
- Providing any supplemental information or documentation required by the Financial Aid Office or other agency, if applicable.
- Reading, understanding, and keeping copies of any forms they are required to sign.
- Repaying any student loans they receive.
- Attending entrance and exit interviews as required if they receive student loans.
- Notifying the Financial Aid Office of any changes in enrollment or financial status (including any scholarships or grants received from outside sources). Students who have loans must report changes of address and enrollment status to the lender.
- Satisfactorily performing the work agreed upon in a work study job.
- Knowing and complying with all requirements for continuation of financial aid, including satisfactory academic progress requirements.

APPLICATION PROCEDURE

To initiate the process, students should complete a Free Application for Federal Student Aid (FAFSA) on the web at www.fafsa.ed.gov, using information from their completed tax return. Paper FAFSA forms are available from any high school counselor or from the WSU Student Financial Aid Office. The WSU FAFSA code is 002394.

Awards to new students are made as soon as possible after the student is admitted to the University; awards to continuing students are made at the end of each academic year (in May). Certain programs have limited funding; others are entitlement programs and have funds available throughout the year.

WSU-Rochester Center

WSU students attending the University Center Rochester should submit the FAFSA on the web (www.fafsa.ed.gov), or they should complete a paper form, listing Winona State University (FAFSA code 002394) as the receiving school. A financial aid advisor is available to meet with students on the Rochester campus weekly on Wednesdays.

SATISFACTORY PROGRESS FOR FINANCIAL AID RECIPIENTS

Federal and State regulations require that all financial aid recipients maintain satisfactory progress. The intent of this requirement is to encourage all aid recipients to advance steadily toward the completion of their degree. The minimum standards required to receive financial aid apply to all academic work at Winona State University, whether financial aid was received at the time or not. Satisfactory progress is evaluated following each semester, including the summer term.

MINIMUM STANDARDS OF SATISFACTORY ACADEMIC PROGRESS FOR FINANCIAL AID RECIPIENTS

Note: This standard became effective fall semester 2005.

I. QUALITATIVE MEASURE

Students are required to maintain a minimum financial aid Satisfactory Academic Progress Grade Point Average (SAP GPA). WSU and consortium agreement credits are used to compute the SAP GPA. Please refer to Section VIII below for a description of consortium agreement credits.

A student with the following number of WSU attempted credits at the end of a semester must have at least the minimum listed SAP GPA:

1 - 15 WSU attempted credits:	1.75 minimum SAP GPA
16 or more WSU attempted credits:	2.00 minimum SAP GPA
1+ graduate credit:	3.00 minimum SAP GPA

II. QUANTITATIVE MEASURE

A. Required Completion Percentage

A student with the following number of WSU attempted credits at the end of a semester must have at least the minimum listed Required Completion Percentage. To measure a student's completion percentage:

1. Combine WSU earned credits and consortium credits to obtain cumulative earned credits.
2. Combine WSU attempted credits and consortium attempted credits to obtain cumulative attempted credits.
3. Divide the cumulative earned credits by the cumulative attempted credits to obtain the completion percentage.

Earned Credits	Required Completion Percentage
1 - 14 WSU attempted credits	57%
15 - 29 WSU attempted credits	60%
30 - 44 WSU attempted credits	63%
45 + WSU attempted credits	67%

B. Maximum Time Frame

Students may not exceed the maximum number of attempted credits listed below and continue to receive financial aid:

- Undergraduate Student: May not exceed 192 attempted credits.
- Post Baccalaureate (second degree) Student: May not exceed 64 attempted credits.
- Graduate Student: May not exceed 45 attempted credits. Contact the Financial Aid Office for programs with degree requirements exceeding 30 credits.

III. Evaluation Period

Financial aid Satisfactory Academic Progress is evaluated at the end of each semester, including the summer term.

IV. Failure to Meet Standards:

At the end of each semester, including summer term, all students are reviewed for financial aid Satisfactory Academic Progress (SAP). Financial aid SAP suspension holds are placed on academic records for all students not meeting the standards.

Note: Students with special circumstances, which have caused the record to read as it does, may appeal the suspension. For details, see Section VI, "Appeals."

V. Notification

- Fall Semester Review: At the end of fall semester, a notice of suspension is sent to students who have filed the FAFSA for the current academic year and have a financial aid SAP hold.
- Spring Semester Review: At the end of spring semester, a notice of suspension is sent to students who have filed the FAFSA for either the current or next academic year and have a financial aid SAP hold.
- Summer Term Review: At the end of summer term, a notice of suspension is sent to students who have the FAFSA for the next academic year and have a financial aid SAP hold.

If the FAFSA has not yet been received for a student with a financial aid SAP hold, no notice of suspension is sent. When the FAFSA is received for a student with a financial aid SAP hold, the suspension notice is sent. In all cases, the suspension is effective immediately. No further processing of the student's aid application takes place. Any costs already incurred are the responsibility of the student, and arrangements must be made with Accounts Receivable.

VI. Appeals

Students who have experienced a special circumstance may submit written reviews to the Financial Aid Satisfactory Progress Review Committee to have their situation reviewed for possible reinstatement of aid. To submit a review, the student must submit the following documentation to the Financial Aid Office:

1. Satisfactory Progress Review Form (received with the notice of suspension).
2. Letter from the student explaining why he or she has fallen below standards and why aid should be reinstated.
3. Third-party letter documenting the student's special circumstances.

VII. Reinstatement

Students are able to request reinstatement of aid for future semesters/terms once deficiencies have been made up and the record once again meets the minimum standards of financial aid Satisfactory Academic Progress. Students should contact the Financial Aid Office for instructions regarding the procedures to be followed. Aid cannot be reinstated for a semester in which the student is academically ineligible.

VIII. Additional Elements

- **Treatment of Grades:** For purposes of monitoring the financial aid SAP standard, WSU courses in which students receive the following grades are considered to be credits attempted: A, B, C, D, F, W (withdrawal), P (pass), NC (no-credit), I (incomplete), IP (in-progress), Z (no grade reported), HA (Honors) and HB (Honors). WSU courses for which the student receives grades of A, B, C, D, P, HA and HB are counted as satisfactorily completed for purposes of monitoring the financial aid Satisfactory Academic Progress standard.
- **Academic Pardon:** Credits for which students have been granted academic pardon are included in the calculation of the cumulative GPA, completion percentage, and maximum time frame for purposes of monitoring the financial aid Satisfactory Academic Progress standard.
- **Audited Courses:** Audited courses do not count as credits attempted or credits earned and are not funded.
- **Consortium Credits:** Credits for which financial aid is received under a consortium agreement are recorded in the student data system to be included in cumulative GPA, completion percentage, and maximum time-frame calculations as transfer credits.
- **Remedial Credits:** Classes in this category are considered attempted for purposes of monitoring the financial aid Satisfactory Academic Progress standard.
- **Repeated Courses:** When a student repeats a course, only the last grade received and credits earned are counted in the GPA and as earned credits for this standard. However, the credits are considered to be attempted each time the course is taken.
- **Transfer Credits:** Transfer credits accepted by WSU are not counted as credits attempted for calculation of cumulative completion percentage, and grades associated with these credits are not used in calculating cumulative GPA. Transfer credits accepted by WSU apply toward the maximum time frame calculation.
- **Withdrawal:** If a student withdraws from the University before financial aid disbursement, the student does not receive any aid since no progress has been made toward a degree. The student must pay expenses from his or her own funds. Standard University refund policies and procedures are followed when a student withdraws from the University for any reason during the term after student aid has

been disbursed. Withdrawal credits are considered credits attempted for purposes of monitoring the financial aid Satisfactory Academic Progress standard.



GRANTS

Federal Pell Grant: A federal grant program available to undergraduate students on the basis of financial need. The Pell Grant processor notifies students of their eligibility by sending them the Student Aid Report (SAR).

Minnesota State Grant Program: Available to qualified Minnesota residents on the basis of financial need. Students must apply within two weeks of the beginning of a term in order to be considered for that term. Students can get information about eligibility criteria and application procedures from any high school counselor or from the Financial Aid Office.

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

Post-Secondary Child Care Program: The State of Minnesota provides funding for child care to students who meet certain income guidelines, who are Minnesota residents, and who are not receiving MFIP (Minnesota Family Investment Program). Contact the Financial Aid Office for more information.

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

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

LOANS

The loans listed below require repayment of the principal after a student leaves the University. In contrast to most commercial loans, some of the loans below are interest-free while the student is enrolled; others have interest accrual.

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 the student is enrolled on at least a half-time basis and during a six-month grace period. The interest is variable, capped at 8.25%.

Unsubsidized Federal Stafford Loan: The terms and conditions are the same as those for Federal Stafford Loan, except that the borrower is responsible for interest that accrues while attending school. This loan program is available for students who do not qualify for a fully subsidized Stafford loan. Independent students may be eligible for higher loan limits.

Federal Perkins Loan: A need-based loan at 5% interest. Repayment and interest do not begin until after the student leaves school, and the loan may be partially canceled if the graduate obtains employment in certain areas according to the terms in the promissory note.

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. Students are eligible for SELF loans regardless of family income; however, the student 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.

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%.

Short-Term Loans: These loans are available to students for emergency expenses. For applications and more information, students should contact the Financial Aid Office.

SCHOLARSHIPS

See page 13 for information about scholarships awarded by the Financial Aid Office.

EMPLOYMENT

Students can work up to 20 hours each week and earn a portion of their college expenses under the Federal Work Study Program, a program in which students can participate if they demonstrate financial need. The program pays minimum wage or more; students are paid twice a month. Most of the Federal Work Study Program jobs are located on campus; however, students can work for approved off-campus, nonprofit organizations or agencies. Eligibility for work study does not guarantee

employment. Although WSU tries to maximize the number of work study opportunities each year, there are typically more eligible students than available jobs.

Students who are Minnesota residents can participate in the State Work Study Program. Students must demonstrate financial need to be eligible for the program. Students are paid minimum wage or more and, like the federal program, they can work on- or off-campus. Work Study Program earnings are taxable. However, the earnings are not included in the total income when filing the FAFSA for future years.

Students who do not qualify for work study may still be able to find employment on campus in student help positions. These positions are not based upon the results of the financial aid application and are not considered student financial aid. A listing of available work study and student help jobs is available on the WSU website under "Students - Employment for Students."

SCHOLARSHIPS



WSU Foundation Annual Scholarship Awards Brunch – Benefactors and Recipients

Scholarship Administration Office
Somsen Hall, Room 210 (507-457-5198)
www.winona.edu ("Alumni & Friends"; "Scholarship Information")

In an effort to help students make progress toward their goals, Winona State University offers hundreds of scholarships. Students in almost all academic disciplines benefit from scholarship funds that come from a variety of sources, both on and off campus.

Some scholarships are open to all students. Many have eligibility criteria based on major field of study, academic standing, financial need, affiliation with a particular organization, or other criteria established by the individual scholarship fund donors. The general categories of scholarships available through Winona State University are described in this section.

To assist students in finding and applying for scholarships for which they are eligible, the Scholarship Administration Office maintains a website with more information and a searchable database. Visit the WSU home page (www.winona.edu) and follow the "Alumni & Friends" link to "Scholarship Information."

WSU ACADEMIC SCHOLARSHIPS

The Office of Admissions (Somsen Hall, Room 106) can provide students with information about first-year and transfer academic scholarships. Funds for these scholarships come from Winona State University and the Winona State University Foundation.

Outstanding Academic Honors Awards: This \$3,500 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 consecutive semesters for a total of \$14,000 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. Students are encouraged to apply for admission early. Recipients are required to live on-campus during their first two years unless they live with a parent or guardian. First-priority awards are made in early November.

WSU Foundation Board Scholarships: The WSU Foundation annually awards scholarships of \$4,000 to six 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. Candidates are determined from a review of essays submitted to the WSU Foundation Board. The scholarship is renewable the first 8 consecutive semesters for a total of \$16,000 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 the student is accepted at WSU; therefore, students are encouraged to apply for admission early. Recipients are required to live on-campus during their first two years unless they live with a parent or guardian.

President's Honor Scholarships: The President's Honor Scholarships are awarded to first-year students coming to WSU directly from high school in the following categories:

- \$2,500 - Top 5% of graduating class and ACT 28 or SAT 1240
- \$1,500 - Top 10% of graduating class and ACT 27 or SAT 1210
- \$1,000 - Top 15% of graduating class and ACT 26 or SAT 1170

The scholarships are available for the first 8 consecutive 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. President's Honor Scholarship recipients are required to live on-campus during their first two years unless they live 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 are eligible if they are in the top 20% of their graduating class with a minimum ACT of 21 or if they have an ACT composite of 24 and are in the top half of class. The awards are based upon the date the student is accepted at WSU. Students are encouraged to apply to WSU early.

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 scale. Application forms are available in the WSU Office of Admissions.

RESIDENT TUITION SCHOLARSHIPS

The Resident Tuition Scholarship (RTS) awards resident tuition rates to new, non-resident, non-reciprocity first-year students. Based on the difference in the cost of resident and non-resident tuition, this scholarship is valued at \$4,500 annually. The Resident Tuition Scholarship is renewable the first 8 consecutive semesters if the student maintains a cumulative GPA of 3.00 while attending WSU continuously as a full-time student and completing at least 12 credits per semester.

An RTS is automatically awarded to new students who meet the criteria above and who rank in the top 15% of their graduating class or have an ACT of 25 or an SAT total of 1100. Students are encouraged to apply to WSU early.

TALENT SCHOLARSHIPS (FINE ARTS AND ATHLETICS)

Students may apply for fine art scholarships if they are talented in art, music, speech, or theater by contacting the chairperson of the appropriate WSU department. Students are encouraged to apply to WSU early. Students who are interested in intercollegiate sports should contact the appropriate head coach to be considered for athletic scholarships.

SCHOLARSHIPS AWARDED BY WSU DEPARTMENTS

Most WSU academic departments select recipients of WSU Foundation scholarships in their major fields with awards of \$100 to \$2,000. Students in good academic standing and majoring in the specific departments may apply for these scholarships. The application process begins early in spring semester. A listing and searchable database of all academic department scholarships is available on the WSU website. From the main WSU home page (www.winona.edu) follow the "Alumni and Friends" link to "Scholarship Information." Students should contact the designated departments for information about application procedures and deadlines.

For more information regarding WSU Foundation scholarships, including application dates and specific requirements, contact the Scholarship Administration Office, Somsen Hall, Room 210 (507-457-5198).

ALUMNI SOCIETY SCHOLARSHIPS

WSU Alumni Relations Office
Somsen Hall, Room 206 (507-457-5027)

The WSU Alumni Society awards six \$1,000 scholarships to new, not previously registered students who are relatives of alumni. The applicant must be a child, a grandchild, a sibling, or a ward of a WSU graduate, and the applicant must be endorsed by a high school counselor or a community leader. Applications are available in the WSU Alumni Office. Applications must be submitted by March 1.

CULTURAL DIVERSITY SCHOLARSHIPS

Cultural Diversity Office
Kryzsko Commons, Room 122 (507-457-5595)

The WSU Cultural Diversity Office coordinates scholarships, incentive grants, internships, and summer opportunity employment programs for historically under-represented students.

Cultural Diversity Academic Honors Scholarship: This \$2,000 award is available to incoming first-year students with a composite score of 24 or above on the ACT or a 3.00 high school GPA and ranking in the 50th percentile of their graduating class. The scholarship is renewable for three years based upon maintaining a 3.00 GPA each semester. Applicants must submit one letter of recommendation from a high school teacher or counselor along with a typed autobiographical essay. Students who receive the Cultural Diversity Academic Scholarship are required to participate in the newly developed mentor program, which begins Fall 2006. (See note below for changes effective Fall 2007.)

Cultural Diversity (Alliss) Scholarship/Grant: Scholarships/grants of \$350-\$1,100 are awarded to students admitted to WSU based on financial need and academic potential. Students must maintain a 2.75 GPA to remain eligible for the scholarship/grant as well as Federal Financial Aid. Applicants must complete a Free Application for Federal Student Aid (FAFSA) form. (See note below for changes effective Fall 2007.)

Note: Effective Fall 2007, scholarship requirements will be modified to align with innovations at WSU as well as MNSCU's definition of "underrepresented populations."

MnSCU defines underrepresented populations as "those who have been under-prepared for or traditionally under-represented or under-served in higher education, including students of color, first generation college students, students for whom English is a second language, and low income students."

SCHOLARSHIPS AWARDED BY THE FINANCIAL AID OFFICE

The Financial Aid Office selects recipients for the scholarships listed below. Awards are based upon financial need and other criteria as determined by the scholarship donor. To apply for these scholarships, students must complete the FAFSA (Free Application for Federal Student Aid) form, which is available through the Financial Aid Office (page 10). Scholarship amounts vary.

Charles and Ellora Alliss Foundation Scholarship
Etta Hudson Howell Scholarship
Ethel Gage Jessen Scholarship
Arthur & Liola (Zeller) Mattson Scholarship
Ella Tucker Scholarship
Winona County Bicentennial Scholarship

OTHER SOURCES OF SCHOLARSHIPS

In addition to scholarships from WSU and the WSU Foundation, a number of organizations offer scholarships to their members, employees, and relatives. Each year, WSU students receive thousands of dollars in scholarships from businesses, government agencies, civic groups, professional organizations, fraternities and sororities, foundations, religious groups, education associations, and military/veterans organizations. Directories of these scholarship sources are available from a public library, high school guidance counselor, or financial aid office.

HOUSING AND DINING

Department of Housing and Residence Life
Kryzsko Commons, Room 130 (507-457-5305)
Website: www.winona.edu/housing
Email: reslife@winona.edu

HOUSING

The Department of Housing and Residence Life provides a comprehensive variety of residential opportunities to WSU students with an equal focus on the following areas: student learning, outstanding service, leadership development, and facilitation of a positive sense of community and connection to WSU. The University does not offer a residential experience at WSU-Rochester Center. See page 37 for information about housing as it relates to the Rochester campus.

ON-CAMPUS HOUSING

WSU offers more than a place to sleep and study. WSU offers a total living and learning environment that supports our academic mission and promotes leadership and community development. Students enjoy a quality residential experience filled with activities and programs that extend learning beyond the classroom to include (1) recreational and social pastimes with friends from across the country and around the world and (2) abundant opportunities to expand their intellectual horizons and hone their leadership skills.

At WSU, we believe that living on campus should be a special and rewarding part of the student's education. The Housing and Residence Life staff members devote their time to providing resources, services, and programs that ensure a stimulating and supportive atmosphere for every resident.

Throughout the school year, every residence hall sponsors high-quality programs that complement classroom learning and encourage leadership and citizenship. The programs—many of which are organized by hall residents—touch on different areas, such as diversity, career development, intellectual and creative enrichment, community service, and other issues important to students.

A full-time hall director resides in each residence hall; the majority of our hall directors hold Master's degrees in fields related to College Student Development. Hall directors provide supervision and leadership, working with a team of upper-division resident assistants (RAs) to create a comfortable, secure, and supportive environment for all students.

Residence Hall Council and Resident Assistants

In each hall, a Residence Hall Council offers opportunities for students to develop a variety of leadership and management skills. Comprised of students elected to various posts by their fellow residents, the council is responsible for organizing the hall's educational and social activities and for encouraging students to take ownership of their hall. Council members attend regional and national conferences devoted to student leadership, and they host leadership conferences on campus. First-year students are strongly encouraged to get involved with their hall council; new students may also find their leadership niche by running for one of the six Freshman Senator posts in the WSU Student Senate.

A well-trained and responsive team of RAs plays a key leadership role in the daily life of each hall. Selected through a rigorous application process, these upper-division students serve as peer advisors and counselors for residents, organize educational activities, and encourage participation in hall and campus activities.

Residence Halls

Nine residence halls allow WSU to house approximately 1,800 students (plus leased space in a traditional residence hall for an additional 200 students on the West Campus). See the campus maps for names and locations of residence halls. For a description of each hall and the different options, students should request a copy of the Residence Life Viewbook or visit the Residence Life website.

While the specific housing options vary within each hall, students can expect to find the following in every WSU residence hall:

- A room fully furnished and wired for laptop computers, local telephone service, and hook-up for cable TV.
- A laser printer at the hall reception desk for students' use.
- Areas conducive to group study.
- Fitness facilities—aerobic equipment and weights, TV lounges with big screens and lots of comfortable furniture, kitchen facilities for preparing a snack or light meal, vending machines for those times

when hunger strikes at odd hours, laundry rooms, and sports equipment and games to borrow.

- A secure environment. Campus security monitors the halls throughout the day and conducts “check-ins” for everyone after 11 P.M. Residence hall staff and campus security work diligently to make the halls safe.

University Apartments at East Lake

University Apartments at East Lake is located at the corner of Franklin and Sarnia Streets. The complex consists of 100 apartment units, housing a total of 360 students. Most of the apartments are 4-bedroom/2-bath units that accommodate 4 students; some are 2-bedroom/2-bath units that accommodate 4 students, and a few are 1-bedroom/1-bath units that accommodate 2 students. All the apartments are fully furnished (including washer and dryer); the housing fee includes all utilities except long distance telephone service.

Applying for Housing

Students must first apply for admission to Winona State University. WSU is an early application school, and on-campus space is allocated based on the date of the student's application. Therefore, it is important for applicants to return the housing application as early as possible. The application process is as easy as 1-2-3:

1. Apply for admission to WSU early in the senior year of high school. The housing application/contract will be sent to you following your letter of acceptance from WSU.
2. Promptly return the completed housing application/contract. It is recommended that you return the application as early as possible, but not later than February 1 to guarantee a space in the residence halls. **Note:** Residence hall space is allocated by the date WSU receives your completed housing application/contract.
3. Submit a \$175.00 payment (which includes a \$25 application fee) on or before February 1 to confirm your space on campus. **Note:** \$150.00 of your advance payment is refundable if the Housing Office receives your written refund request on or before May 1. The \$25.00 application fee is not refundable.

Payment for Housing and Dining Services

Payment for residence hall and meal services is made on a semester basis. See page 9 for an estimated total of the minimum expenses for undergraduate students. View current room and board rates at www.winona.edu/billing.

OFF-CAMPUS HOUSING

The Office of Housing and Residence Life provides an Off-Campus Referral Service (Kryzsko Commons, Room 130), which consists of listings provided by the landlords of apartments and other rental options. The information is available at the office from 8 A.M. to 4 P.M. each business day.

WSU makes no representation as to the kind, quality, or quantity of facilities available that are listed by the landlords. The University also does not control any changes to the information; cost and availability are subject to change by the landlords. WSU assumes no liability arising from relationships between students and landlords as a result of these listings. All questions should be addressed to the landlords.

The University does not own nor does it operate married housing facilities. To apply for subsidized housing, students should contact the Housing and Redevelopment Authority of Winona, 165 E. 4th St., Winona, MN. 55987.

CAMPUS DINING

Campus dining at WSU is an exciting and nutritious experience. WSU has two dining halls on campus, the Jack Kane Dining Center, located in Kryzsko Commons, and the Lourdes Dining Hall, located on the West Campus. Built in 1994, the Jack Kane Dining Center follows a riverboat theme, providing an atmosphere that complements fine dining. The area hosts an upper-level mezzanine as well as a lower-level with a private dining area. The newly renovated Lourdes Dining Hall, located on the main floor of Lourdes Hall, provides additional convenience for the students living on the West Campus. (See page 37 for information about dining options for the Rochester campus.)

Students on the meal plan can use their meal cards in either dining location. In addition to the two dining halls, students have the option of eating in the Kryzsko Commons Food Court (known as the Smaug) or the Lourdes Hall Snack Shop.

Meal Plan advantages include:

- All you care to eat: Unlimited portions available on all items except premium entrees.
- Grab & Go Lunches and Dinners: Available for students with work or class schedules that conflict with meal times.
- Under-the-Weather Trays: If students are ill and need to have a meal brought to them, they can arrange this service through the Residence Life Staff.

WSU offers a choice of three meal plans: 19, 14, or 10 meals per week. At designated times, meals may be "transferred" at the "Smaug." In addition, each meal plan includes \$105.00 in credit (Kryzsko Kash) to

make purchases in the "Smaug" or dining halls. Changes to decrease the number of meals in your meal plan can only be made during the week of final examinations or during the first week of classes each semester. You may increase the number of meals in your meal plan at any time.

The Food Service Committee, comprised of students, provides input and suggestions to enhance WSU's campus dining experience.

EMPLOYMENT OPPORTUNITIES

Campus dining also provides employment opportunities; it is one of the largest student employers on campus. Students who are interested in on-campus employment should contact the Campus Dining Office.

**REGISTRATION AND ACADEMIC RECORDS**

Registrar's Office
Somsen Hall, Room 114 (507-457-5030; fax: 507-457-5578)
www.winona.edu/registrar

The Registrar's Office is responsible for maintaining and safeguarding records of student academic performance; monitoring compliance with academic requirements; facilitating the scheduling of classes; managing the process of enrolling in University courses and programs; providing official transcripts and other documents to verify student achievement; maintaining an accurate catalog of all academic offerings; facilitating the transfer of student records between WSU and other institutions; and verifying compliance with federal and state regulations and with the expectations of agencies with which WSU or its students have obligations.

REGISTRATION

WSU offers classes in two 15-week semesters and a 10-week summer term, which consists of two 5-week sessions. Continuing students register for fall and summer classes during April of the previous academic year, and for spring classes during November. New students typically register for classes during June of the summer before their first fall semester. All course registration is performed electronically on the WSU website. Prior to registering for on-campus (Winona) classes, new and returning students must satisfy the admissions requirements and be officially enrolled in WSU. All Winona campus undergraduate students must also contact their advisor each term to receive their registration access code. See page 5 for an explanation of the admissions policies and procedures for new and returning students. When new students' applications have been approved and processed, WSU sends each student a Warrior ID number and a PIN number.

ADVISING

Each semester, WSU schedules an Advising Period (see Academic Calendar). During this period, students who are enrolling in on-campus (Winona) classes must meet with their advisors (see page 28). In addition to providing academic advising, the advisor gives the student an access code that the student must use, together with the Warrior ID number and the PIN number, to initiate the WSU Web Registration procedure. The access code is good only for creating or modifying a class schedule for the next semester. (Students on the Rochester campus and those registering for extension classes are not required to have an access code.)

Students may go to www.winona.edu/registration.html for up-to-date reports that assist in their academic planning. From this web address, students may view and print their current academic transcript; they can also get a copy of their Degree Audit Report from the Degree Auditing

Reporting System (DARS). The DARS report is designed to help students select courses and build their academic schedule by displaying their progress at any point in their career. It shows how courses taken at WSU or transferred from other schools apply to the student's degree, and what courses are still needed to meet all requirements. With DARS, students can anticipate and resolve any problem areas and can work with their advisor to get the best academic and career counseling.

WEB REGISTRATION

The order of registration for continuing students is determined by the number of academic credits they have completed. Students with the greatest number of credits register first. All instructions for registering, including the schedule of registration "windows" during which students may register, are posted in the class schedule (www.winona.edu/class_schedule). The Registrar strongly advises students to print a copy of their updated schedule any time they use the Web Registration system to add or delete courses, and to maintain a personal folder of all records of academic progress. (See page 28 for more information on academic advising.)

Students should keep the paper copy of their schedule until grades are reported at the end of the semester. If there is any problem with a student's registration or bill, the student will be asked for the printed schedule.

EXTENSION CLASSES

Students can enroll in Extension classes without being formally admitted to the University or without filing an Intent to Return form. To register in an extension class, the student may go to the WSU website and follow the Web Registration instructions. Web Registration requires the student to enter his/her Warrior ID number and PIN number. Students who have not received these numbers can contact the Outreach and Continuing Education Department (OCED) in Somsen Hall, Room 109 (507-457-5080) for assistance. Students who are unable to register on the website may register by submitting an Extension Class Registration form to the OCED office.

ATTENDANCE POLICY

Students are required to attend the first meeting of all classes in which they are registered. See page 24 for more details on the class attendance policy. If a student wishes to withdraw from a class, the student is responsible for formally dropping the class.

CHANGES IN CLASS SCHEDULE**Change the Grading Method for a Class**

At the time of registration, students must indicate whether they are taking a course for letter grade, audit, or pass/no credit if the course

permits these grading options. If students wish to modify their choice of grade type, they must request the change by the published drop/add deadline. Audited courses cannot be used to satisfy graduation, certification, or licensure requirements. To request a change, students should go to the WSU website and follow the directions under Web Registration.

Add a Class

For the first three instructional days of the semester, students may add a class using the Web Registration process. After the third instructional day of the semester (or after the first class meeting for evening classes), students must obtain the permission of the instructor for each class to be added.

To register for a closed/full class or for a course that requires the instructor's permission, students must either submit a signed Class Permit form (also called a "blue card") to the Registrar's Office or have their instructor submit an override online.

Arranged Classes

An "arranged class" is a course that is listed in the WSU Catalog, but not scheduled to be offered during a particular semester. Such a course may be made available at the discretion of the faculty member, department chairperson, and academic dean. To apply for an arranged class, students must be fully matriculated with an established GPA at WSU of 2.00 or higher. They should request an application from the Registrar's Office and obtain approvals from the academic dean and academic department. When the arranged class has been added to the University's course schedule, the student must then register for it in the usual fashion.

Independent Study or Internships

To apply for an independent study course or an internship, a student must be fully matriculated with an established GPA at WSU of 2.00 or higher. The student should consult the academic department for information about any additional GPA requirements for internships. A special application form, available from the Registrar's Office, must be submitted to the appropriate academic dean according to announced deadlines (see Academic Calendar). Because an independent study or an internship is an academic course, the student must register for it after the special application form has been approved—either by using the Web Registration procedure or by submitting an application to the appropriate office (Registrar's Office, Somsen Hall, Room 114 or the University Center Rochester). See page 24 for further information about independent study and internships.

Drop a Class

To drop a class, students should follow the instructions under Web Registration on the WSU website. All drop requests must be submitted by the published drop/add deadline (see Academic Calendar). If a student stops participating in classes without formally withdrawing, a failing grade will be recorded. Students should understand the impact that dropping a class can have on their business office account, their academic progress and eligibility for financial aid. See page 26 for more information about dropping classes.

ACADEMIC RECORDS

Student Privacy Policies

WSU complies with the Federal Family Educational Rights and Privacy Act (FERPA) and the Minnesota Government Data Practices Act. Based on these two acts, students are afforded certain rights with regard to their education records. Specifically, students have the right to:

1. Inspect and review their education records within 45 days of the date that the University receives the student's request for access.
2. Request correction of records the student believes to be inaccurate, misleading, or in violation of his/her privacy rights.
3. Withdraw consent to disclosure of "directory information" as defined in the following policy statement:

Pursuant to the Minnesota Government Data Practices Act, Minnesota Statue 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:

- Name; Classification
- Permanent Address; Permanent Telephone Number
- Enrollment Status (Full-Time or Part-Time)
- Local Address/ Residence Status; Local Telephone Number
- Date of WSU Graduation

- Date and Place of Birth
- Major and Minor Fields of Study and Licensure Programs
- Participation in Officially Recognized Activities and Sports
- Weight and Height (of Athletic Team Members)
- Dates of Attendance
- Degrees and Awards Received
- Most Recent Previous Educational Institution Attended

The University may disclose any of these items without prior written consent, unless notified in writing to the contrary. 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.



Student Right to Know Act

Institutional Research

Maxwell Hall, Room 205 (507-457-5004)

In compliance with the federal Student Right to Know Act, WSU tracks the rates at which full-time students complete bachelor's degrees from the University, within a specified period of time. This information is available on request from the Office of Institutional Research.

Name or Address Change

Students should notify the Registrar as soon as possible concerning any change of name or address to ensure that WSU's academic records are accurate and that mail is forwarded properly. Students may submit name and address changes via the WSU website, or they may request the necessary forms from the Registrar's Office. Students who are candidates for graduation should also make the same name or address changes on the Application for Graduation. The Registrar's staff does not automatically update that form.

Final Grades

At the end of the semester, final grades are available to students on the WSU website. To view grades, students access the Web Registration procedure and click on "Check Term Grades." Grades are available as soon as they are entered in the database. The student's current cumulative GPA also appears on the screen; however, it is not updated each time a grade is entered; rather, it is updated nightly.

Transcripts of Credit and Copies of Student Records

Upon the student's signed, written request, the Registrar's Office will issue either an unofficial transcript or an official transcript (i.e., embossed with the University seal and a copy of the Registrar's signature). In general, students and advisors use unofficial transcripts on campus. Official transcripts are sent to other educational institutions, businesses, and other organizations. Although transcripts are currently issued free of charge, release of official transcripts may be withheld if there is an outstanding debt to the University.

Transcripts may be requested in person at the Registrar's Office, by United States Postal Service mail, or by fax. Official transcripts are processed within two to three business days. Unofficial transcripts may be requested at the Registrar's Office for pick-up the next day. When a transcript is given directly to the student, it is stamped "Issued to

Student”; students must show WSU ID to pick up transcripts. WSU reserves the right to refuse students access to inspect the following kinds of records:

- Financial statements of the student's parents
- Letters and statements of recommendation for which the student has waived his or her right of access, or which have been maintained by WSU prior to January 1, 1975
- Records connected with an application to attend WSU or a component unit of WSU if that application is denied
- Records that are excluded from the FERPA definition of education records
- Records that are determined by the University to include confidential data, in accordance with the Minnesota Government Data Practices Act.

Winona State University reserves the right to deny transcripts or copies of records not required to be made available by the Family Educational Rights and Privacy Act of 1974, as amended, if the student has an unpaid financial obligation to the University or if there is an unresolved disciplinary action pending against the student.

Credit Transfers from WSU

Universities and other colleges accept academic courses, undergraduate and graduate, completed at WSU when those courses are applicable to a curriculum the student chooses and when the courses meet prescribed scholastic standards. See pages 5 and 7 for further information about credit transfer as a new or returning WSU student.

Application for Graduation

The requirements for graduation with Associate in Arts and baccalaureate degrees are listed on page 22. Candidates for graduation should review the requirements specified for their major/minor, and submit an Application for Graduation to the Registrar's Office at least two semesters before they expect to graduate. Students are not permitted to participate in commencement unless they have completed all degree requirements.

Applications are processed in the order in which they are returned to the Registrar's Office; students should allow a four-week minimum for application processing and notification. Three weeks before graduation, a list of candidates is posted on the Registrar's Office's bulletin board. Candidates should review the list to confirm that they have been approved for graduation. Students must notify the Registrar immediately if their names do not appear on the list even though they are candidates for graduation.

Candidates are expected to attend commencement; they should notify the Registrar's Office if they will be unable to participate in commencement. A candidate who does not attend commencement but who has completed all degree requirements will, nevertheless, be considered to have graduated.

Graduation for any particular semester is final 30 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.



ACADEMIC POLICIES & UNIVERSITY REQUIREMENTS

Office of the Vice President for Academic Affairs
Somsen Hall, Room 211 (507-457-5010)
www.winona.edu/academics.html

The Office of Academic Affairs oversees all academic matters for the University, which include maintaining the curriculum and making it available to students, assuring the quality of instruction, administering the academic policies and requirements of the University, managing enrollment, and maintaining a stimulating learning environment.

Policy Changes: Administrative and committee actions may change policies that affect students at any time. Students are responsible for complying with changes as they are reported either in the student newspaper (the *Winonan*) or in announcements posted on the Registrar's Office bulletin board (Somsen Hall, Room 114) or on the University's website (www.winona.edu).

UNIVERSITY REQUIREMENTS

Students progress toward an associate (2-year) or a baccalaureate (4-year) degree by completing courses that satisfy University Studies requirements. Students in baccalaureate programs must also satisfy the requirements of an academic major and may take required courses in a minor, or related field. Students also commonly take elective courses for personal interest or enrichment that do not satisfy requirements in any of these three areas but that, nevertheless, are applied toward the total number of course credits required for graduation.

However, excessive accumulation of elective courses can delay graduation. Some academic choices lead unavoidably to that end. For example, a student who changes academic goals by transferring from another school or by changing majors may accumulate courses that can only be counted as electives. If a student changes from one curriculum to another within the University, the student must meet requirements of the newly chosen curriculum even though the total number of credits earned exceeds the total minimum for graduation.

On the other hand, some courses may apply to both teacher licensure and a university requirement or may satisfy more than one university requirement simultaneously. Careful academic planning, with the help of an advisor (page 28), can take advantage of such overlaps to satisfy multiple goals within the time span required for an undergraduate degree.

Required for A.A.	Required for B.A. or B.S.	
46 Credits	46 Credits	Developmental Courses
		University Studies, including:
		Basic Skills — 12 credits
		Arts and Sciences Core — 22 credits
		Unity and Diversity — 12 Credits
	12 Credits	Flag Requirements — 12 credits
	47 Credits Minimum	Major
		Minor
18 Credits	Variable	Electives
64 Credits	128 Credits	TOTAL CREDITS

Non-Degree Credit

A small number of courses cannot be used to satisfy university requirements or applied toward graduation. These include:

- Developmental courses (course numbers below the 100-level). Developmental courses such as English 099 and Math 050 meet a student's educational needs, but carry only non-degree credit that counts toward financial aid and athletic eligibility but does not count toward graduation requirements. The grade received in a developmental course is not used in computing the term or cumulative GPA.
- Audited courses (page 24).
- Vocational courses (not available at WSU but sometimes taken at another school).
- Courses taken for continuing education credit (CEU) (page 29).
- Courses in which the student has received a failing grade. (Some departments require a grade of "C" or better in courses applied toward the major.)

UNIVERSITY STUDIES PROGRAM (USP)

The University Studies Program (46 semester hours) provides a broad base of skills and knowledge to equip students for informed, responsible citizenship in a changing world. It, thereby, distinguishes a college degree from a technical or occupational training program certificate. The program provides opportunities for students to evaluate their cultural and social inheritance critically, to think scientifically in both the natural and social spheres, to think beyond the boundaries of their own culture, and to understand the expressive arts. It also enhances reasoning, analytic, and communication skills that students will need to perform well in a wide range of occupations and postgraduate programs. Finally, the program provides the opportunity for students to explore how an understanding of the connections among these diverse bodies of skill and knowledge enhance their ability to live well and ethically in the contemporary world. Page 19 provides an overview of the University Studies subject areas and semester-hour requirements. Page 20 lists the courses approved for University Studies credit at the time this catalog was published.

All students, including transfer students, must complete the University Studies requirements in order to graduate from WSU:

- Transfer students who have satisfied specific goals of the Minnesota Transfer Curriculum, as identified in the Admissions section of this catalog (page 6), will be considered to have satisfied the equivalent components of the University Studies Program.
- Transfer students who have received an Associate in Arts degree from a community or technical college have automatically satisfied the Basic Skills, Arts and Sciences Core, and Unity and Diversity components of University Studies but must, nevertheless, complete the University Studies Program Flag requirements at WSU.
- Transfer students who have received an A.S. or A.A.S. degree from a community college or university can usually anticipate that they will meet the WSU University Studies requirements once they have

completed 40 or more semester credits. Those 40 hours must include humanities, the natural sciences and social sciences (as defined by WSU) and course work equivalent to the courses required in the basic skills.

Note: The list of approved University Studies courses is continually updated as additional or new courses are approved for various levels of the University Studies Program. The most up-to-date list of courses is available at www.winona.edu/registrar/. Students are expected to check all course descriptions carefully to determine prerequisites.

Credit Transfers from WSU

The Minnesota Transfer Curriculum is a cooperative transfer program in which all public colleges and universities in Minnesota participate. If Winona State University certifies that a student transferring to another participating college or university has satisfied all ten areas of emphasis of the Minnesota Transfer Curriculum, then the other school will give the student credit for fully satisfying their general education requirements. The ten areas of emphasis are written and oral communication; critical thinking; natural sciences; mathematics/symbolic systems; history and the social/behavioral sciences; the humanities—arts, literature, and philosophy; human diversity; global perspective; ethical and civic responsibility; and people and the environment. Additional information about the Minnesota Transfer Curriculum is available at www.mntransfer.org.

WSU's general education requirements comprise three areas within the University Studies requirements described on page 19 of this catalog: (1) four Basic Skills: College Reading and Writing, Oral Communication, Mathematics, and Physical Development and Wellness; (2) four Arts and Sciences Core requirements: Humanities, Natural Science, Social Science, and Fine and Performing Arts; and (3) four Unity and Diversity requirements: Critical Analysis, Science and Social Policy, Global or Multicultural Perspectives, and Contemporary Citizenship or Democratic Institutions. A current list of courses that meet these requirements can be viewed online at www.winona.edu/registrar/.

If a student, transferring from WSU to another school that participates in the Minnesota Transfer Curriculum (MNTC), has completed some but not all the University Studies Program requirements, then he or she will be certified as having completed those areas of emphasis indicated by the table below. (**Note:** For students whose initial enrollment is Fall 2006 or later, introductory or beginning world language courses do not count toward any of the MNTC goals although such courses typically fulfill Humanities requirements in the University Studies Program.)

Successful completion of University Studies Program flagged requirements will not result in certification of completion of MNTC areas of emphasis. Students transferring to a college or university outside Minnesota or to a Minnesota institution that does not participate in the Minnesota Transfer Curriculum may have their transcripts evaluated on a course-by-course basis.

Satisfied Winona State's requirements in University Studies areas of:

College Reading and Writing and Oral Communications (Basic Skills)
Mathematics (Basic Skills)
Physical Development and Wellness (Basic Skills)
Humanities and Fine and Performing Arts (Arts and Sciences Core)
Natural Science (Arts and Sciences Core)
Social Science (Arts and Sciences Core)
Critical Analysis (Unity and Diversity)
Science and Social Policy (Unity and Diversity)
Multicultural Perspectives (Unity and Diversity)
Global Perspectives (Unity and Diversity)
Contemporary Citizenship or Democratic Institutions (Unity and Diversity)

Certified as having completed Minnesota Transfer Curriculum (MNTC) areas of:

Written and Oral Communication (MNTC Goal 1)
Mathematics/Symbolic Systems (MNTC Goal 4)
Does not satisfy any MNTC area
The Humanities—the Arts, Literature, and Philosophy (MNTC Goal 6)
Natural Sciences (MNTC Goal 3)
History and the Social and Behavioral Sciences (MNTC Goal 5)
Critical Thinking (MNTC Goal 2)
People and the Environment (MNTC Goal 10)
Human Diversity (MNTC Goal 7)
Global Perspective (MNTC Goal 8)
Ethical and Civic Responsibility (MNTC Goal 9)



Using University Studies Courses to Meet Graduation Requirements

1. Students may use University Studies courses toward meeting the requirements in any minor requiring the course.
2. Students may use Basic Skills courses to satisfy both University Studies and major requirements.
3. Students may use courses in the Arts and Sciences Core to meet both University Studies and major/option requirements only if they are Additional Requirements courses.

An **Additional Requirements** course is an Arts and Sciences Core course that is required in the major/option but offered outside the major/option department. In this catalog, additional requirements are noted in the major/option program descriptions with an asterisk (*). Grades and credit hours earned in additional requirement courses are not calculated into the student's major GPA.

4. Students may use Unity and Diversity courses to satisfy both University Studies and major requirements.
5. Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. All Flag courses require the relevant Basic Skills course(s) as prerequisites (e.g., the "College Reading and Writing" Basic Skill course is a prerequisite for Writing Flag courses), although departments and programs may require additional prerequisites for Flag courses.

Overview of University Studies Components

Note: When using the online registration systems, students may use Search Codes to identify courses that satisfy each of the requirements below.

BASIC SKILLS (12 S.H.)

College Reading and Writing (ENG 111; 4 S.H.): Increase students' critical reading, thinking, and writing skills. Help students develop a mature writing style; establish foundation for the reading/writing done in later college courses. Students should take ENG 111 during the first year of college. (Search Code 10)

Communication Studies (CMST 191; 3 S.H.): Develop skill in expressing ideas effectively and interacting with others in dyadic and group contexts. Students should take CMST 191 during their first two years of college. (Search Code 11)

Mathematics (3 S.H.): Develop an appreciation of the uses and usefulness of mathematical models of our world as applied in a variety of specific contexts. Should be taken during the first year, but no later than the student's third semester. (Search Code 12)

Physical Development and Wellness (2 S.H.): Provide knowledge and practical skills in lifetime physical activity, health awareness, and wellness. Courses complement and enhance students' educational foundation by learning how to live a healthy lifestyle. (Search Code 13)

ARTS AND SCIENCES CORE (22 S.H.)

Humanities (6 S.H.): Provide a framework for understanding the nature and scope of human experience. Courses explore the search for meaning and value in human life by examining its expression in cultural forms and texts, literature, and the arts. (Search Code 14)

Natural Science (7 S.H.): Provide students the tools to understand and apply the methods by which scientific inquiry increases our understanding of the natural world. One laboratory course is required. (Search Code 15)

Social Science (6 S.H.): Help students to understand and explain the economic, political, psychological, and sociological perspectives regarding human behavior. (Search Code 16)

Fine and Performing Arts (3 S.H.): Offer opportunities for creative expression. Courses develop basic skills and aesthetic awareness in tandem with a fundamental understanding of artistic traditions and contemporary expressions. (Search Code 17)

UNITY AND DIVERSITY (12 S.H.)

Critical Analysis (3 S.H.): Develop critical thinking or analytic problem-solving skills, including the ability to identify sound arguments and distinguish them from fallacious ones. (Search Code 18)

Science and Social Policy (3 S.H.): Promote students' understanding of the interrelated concerns of society and the sciences. Courses integrate issues related to one of the sciences with the social and government policy decisions that stem from these issues. (Search Code 19)

GLOBAL OR MULTICULTURAL PERSPECTIVES (3 S.H.):

Global Perspectives: Improve students' understanding of the growing inter-relatedness of nations, people, and the environment. -OR- **Multicultural Perspectives:** Develop students' understanding of diversity within and among societies. (Search Code 20)

CONTEMPORARY CITIZENSHIP OR DEMOCRATIC INSTITUTIONS (3 S.H.):

Contemporary Citizenship: Provide students with the ability to participate as effective citizens in a democratic, multicultural, and global society. -OR-

Democratic Institutions: Help students understand basic concepts of social justice, the common good, and the legitimate scope of government in a democratic and pluralistic society. (Search Code 21)

FLAG REQUIREMENTS (12 S.H.)

Oral Flag (3 S.H.): Complete the process of providing WSU graduates with the knowledge and experience required to become highly competent communicators by the time they graduate. (Search Code 22)

Writing Flag (6 S.H.): Reinforce the outcomes specified for the basic skills area of writing. Courses emphasize writing as essential to academic learning and intellectual development. (Search Code 23)

Mathematics/Statistics or Critical Analysis Flag (3 S.H.):

• **Mathematics/Statistics:** Provide students with significant practice in applying prerequisite mathematics or statistical knowledge. -OR-

• **Critical Analysis:** Provide students with significant practice in rigorous argument comparable to what a student is expected to receive in a mathematics/statistics flag course. (Search Code 24)

APPROVED USP COURSES

Note: The list of approved University Studies courses is continually updated as additional or new courses are approved for various levels of the University Studies Program. The most up-to-date list of courses is available at www.winona.edu/registrar/. Students are expected to check all course descriptions carefully to determine prerequisites.

BASIC SKILLS (12 S. H.)

COLLEGE READING & WRITING (4) - MNTC Goal 1-

- ENG 111 College Reading and Writing (4)
- ENG 112 Research Writing (1) (must be combined with transfer credit)

ORAL COMMUNICATION (3)

- CMST 191 Introduction to Public Speaking (3)

MATHEMATICS AND STATISTICS (3) -MNTC Goal 4-

- 100 Survey of Math (3)
- 110 Finite Mathematics (MATH) (3)
- 120 Precalculus (3)
- 130 Matrix Algebra (3)
- 140 Applied Calculus (3)
- 150 Modeling Using Precalculus and Statistics (3)
- 155 Calculus Based Modeling (3)
- 160 Calculus I (4)
- 165 Calculus II (4)
- 110 Fundamentals of Statistics (STAT) (3)
- 210 Statistics (STAT) (3)

PHYSICAL DEVELOPMENT AND WELLNESS (2)

Health, Exercise and Rehabilitative Sciences (HERS)

- 204 Personal and Community Health (3)
- 205 Nutrition for Lifetime Wellness (3)

Physical Education and Recreation (PER)

- Activities (1 S.H. each):** 100, 101, 102, 103, 104, 112, 120, 122, 123, 134, 135, 137, 139, 140, 141, 142, 144
- 199 Lifetime Fitness (2)
 - 214 Standard First Aid and CPR (2)
 - 239 Outdoor Pursuits (3)

ARTS & SCIENCES CORE (22 S.H.)

HUMANITIES (6 S.H.)

Note: For students whose initial enrollment is Fall 2006 or later, introductory or beginning world language courses do not count toward any of the Minnesota Transfer Curriculum goals. Introductory language courses include: ARAB 101, 102; CHIN 101, 102; ENG 106; FREN 101, 102; GERM 101, 102; JPN 101, 102; and SPAN 101, 102.

Arabic (ARAB)

- 101 Arabic for Beginners (4)
- 102 Introduction to Arabic Grammar and Literature (4)

Art -MNTC Goal 6-

- 109 Introduction to Art (3)
- 221 Art History I (3)
- 222 Art History II (3)
- 224 American Art (3)

Chinese (CHIN)

- 101 Beginning Chinese I (4)
- 102 Beginning Chinese II (4)

Communication Studies (CMST) -MNTC Goal 5-

- 283 Introduction to Rhetorical Studies (3)
- 289 Gender and Communication (3)

English (ENG) -MNTC Goal 6-

- 106 ESL: Academic Reading & Writing I (3) (**Exception:** ENG 106 does not count toward MNTC goals. See Note above.)
- 120 Introduction to Literature (3)
- 240 Young Adult Literature (3)

Foreign Languages (FREN, GERM, SPAN)

- 101 Elementary French I (4)
- 102 Elementary French II (4)
- 101 Elementary German I (4)
- 102 Elementary German II (4)
- 101 Elementary Spanish I (4)
- 102 Elementary Spanish II (4)

History (HIST) -MNTC Goal 5-

- 120 Western Civilization to 1500 (3)
- 121 Western Civilization 1500-1815 (3)
- 122 Western Civilization 1815-Present (3)
- 150 United States History to 1865 (3)
- 151 United States History Since 1865 (3)
- 214 The Mississippi River in U. S. History (3)

Humanities (HUM) -MNTC Goal 6-

- 140 Approaches to Film (3)

Japanese (JPN)

- 101 Beginning Japanese I (4)
- 102 Beginning Japanese II (4)

Music (MUS) -MNTC Goal 6-

- 109 Introduction to Music (3)
- 113 Women in Music (3)

- 122 History of Rock Music (3)
- Philosophy (PHIL) -MNTC Goal 6-**
- 120 Introductory Philosophy (3)
- 201 Classical Philosophy (3)
- 230 Moral Theory (3)
- 240 Philosophy of Science (3)
- 260 Problems in Philosophy (3)
- 270 Philosophy of Religion (3)
- 280 Philosophy of Art (3)
- 301 Early Modern Philosophy (3)
- 302 Contemporary Philosophy (3)

NATURAL SCIENCES (7 S.H.)

Biology (BIOL) -MNTC Goal 3-

- 117 Human Biology (3)
- 118 General Biology (4)
- 201 Human Anatomy (4)
- 203 Natural History (4)
- 211 Anatomy and Physiology I (4)
- 212 Anatomy and Physiology II (4)
- 241 Basics of Life (4)
- 242 Organismal Diversity (4)

Chemistry (CHEM) -MNTC Goal 3-

- 100 Chemistry Appreciation (3)
- 106 Chemistry in Our World (3)
- 107 Chemistry in Our World with Lab (4)
- 108 Introductory General Chemistry (4)
- 208 General, Organic, and Biochemistry I (4)
- 209 General, Organic, and Biochemistry II (4)
- 210 Chemistry for Health Sciences (5)
- 212 Principles of Chemistry I (4)
- 213 Principles of Chemistry II (4)

Geoscience (GEOS) -MNTC Goal 3-

- 100 Minnesota's Rocks and Waters (3)
- 104 Catastrophes and Extinctions (3)
- 105 Astronomy with Laboratory (4)
- 106 Astronomy (3)
- 110 Oceanography with Laboratory (4)
- 111 Oceanography (3)
- 115 Meteorology with Lab (4)
- 116 Meteorology (3)
- 120 Dynamic Earth with Lab (4)
- 121 Dynamic Earth (3)
- 130 Earth and Life Through Time (4)

Physics (PHYS) -MNTC Goal 3-

- 115 Conceptual Physics (4)
- 200 Fundamentals of Aviation (3)
- 201 General Physics I (4)
- 202 General Physics II (4)
- 221 University Physics I (4)
- 222 University Physics II (4)

Science Education (SCIE) -MNTC Goal 3-

- 201 Investigative Science I: Earth the Water Planet (4)
- 401 Investigative Science II (4)

SOCIAL SCIENCE (6 S.H.)

Communication Studies (CMST) -MNTC Goal 5-

- 282 Introduction to Communication Studies (3)
- 287 Conflict and Communication (3)

Economics (ECON) -MNTC Goal 5-

- 201 Principles of Microeconomics (3)
- 202 Principles of Macroeconomics (3)

Education (EDUC) -MNTC Goal 5-

- 303 Human Development and Learning: Elementary Education with Early Childhood Emphasis (4)
- 304 Human Development and Learning: Middle Level and K-12 (4)
- 305 Human Development and Learning: Secondary (4)

Geography (GEOG) -MNTC Goal 5-

- 110 World Regional Geography (3)
- 212 Physical Geography (3)
- 213 Cultural Geography (3)

Political Science (POLS) -MNTC Goal 5-

- 120 Introduction to American Politics (3)
- 130 Introduction to International Relations (3)
- 150 Introduction to Political Theory (3)
- 201 Politics and Violence (3)
- 221 State and Local Government (3)

Psychology (PSY) -MNTC Goal 5-

- 210 General Psychology (3)
- 250 Developmental Psychology (3)
- 325 Social Psychology (3)

Sociology (SOC) -MNTC Goal 5-

- 150 Introduction to Sociology (3)
- 205 Social Interaction (3)
- 212 The Family (3)
- 216 Social Problems (3)

Special Education (SPED) -MNTC Goal 5-

- 400 Education of Exceptional Children/Youth (3)

Women's and Gender Studies (WS) -MNTC Goal 5-

- 148 Introduction to Women's & Gender Studies (3)

FINE AND PERFORMING ARTS (3 S.H.)**Art (ART) -MNTC Goal 6-**

- 110 Experiencing Art (3)
- 114 2-D Design (3)
- 115 3-D Design (3)
- 118 Drawing I (3)
- 120 Introduction to Ceramics (3)
- 128 Introduction to Sculpture (3)
- 130 Introduction to Printmaking (3)

English (ENG) -MNTC Goal 6-

- 222 Introduction to Creative Writing (3)

Mass Communication (MCOM) -MNTC Goal 6-

- 115 Photography Appreciation (3)

Music (MUS) -MNTC Goal 6-

- 110 History of American Jazz (3)
- 111 Film Music: Art behind the Scenes (3)
- 120 Introduction to Music Theory (3)
- 141 World Music Ensemble (1)
- 143 Women's Chorus (1)
- 233 Piano Ensemble (1)
- 239 Jazz Combo (1)
- 240 Percussion Ensemble (1)
- 241 Symphonic Wind Ensemble (1)
- 242 Orchestra (1)
- 243 Concert Choir (1)
- 244 Jazz Ensemble (1)
- 247 Woodwind Ensemble (1)
- 320 Music for Elementary Teachers (3)
- 324 Recreational Music (2)

Theatre and Dance (THAD) -MNTC Goal 6-

- 111 Theatre Appreciation (3)
- 115 Dance Appreciation (3)
- 131 Performance I for Everyone (3)
- 141 Oral Interpretation (3)
- 151 Tap Dance I (1)
- 153 Jazz Dance I (1)
- 155 Modern Dance I (1)
- 157 Ballet I (1)
- 205 Make Up for the Performer (1)
- 253 Jazz Dance II (2)
- 255 Modern Dance II (2)
- 257 Ballet II (2)

UNITY AND DIVERSITY (12 S. H.)**CRITICAL ANALYSIS (3 S.H.)****Chemistry (CHEM) -MNTC Goal 2-**

- 190 Forensic Chemistry (4)
- 425 Analytical Chemistry I (4)

Child Advocacy Studies (CAST) -MNTC Goal 2-

- 301 Perspectives on Child Maltreatment & Child Advocacy (3)

Communication Studies (CMST) -MNTC Goal 2-

- 375 Argumentation and Advocacy (3)

Computer Science (CS) -MNTC Goal 2-

- 130 Introduction to BASIC Programming (3)
- 116 Web Technology (3)
- 150 Overview of Computer Science (3)
- 234 Algorithms and Problem Solving I (4)

Economics (ECON) -MNTC Goal 2-

- 302 Intermediate Microeconomics (3)

English (ENG) -MNTC Goal 2-

- 210 Advanced Expository Writing (3)

Finance (FIN) -MNTC Goal 2-

- 360 Corporate Finance (3)

Geoscience (GEOS) -MNTC Goal 2-

- 240 Watershed Science (4)

Health, Exercise and Rehabilitative Sciences (HERS) -MNTC Goal 2-

- 326 Educational Topics/Issues (2)
- 433 Senior Health Seminar (1)
- 491 Therapeutic Treatment and Rehabilitation of Athletic Injuries (3)

History (HIST) -MNTC Goal 2-

- 298 Historical Research Methods and Historiography (3)

Mathematics (MATH) -MNTC Goal 2-

- 210 Foundations of Mathematics (4)
- 315 Chaos Theory (3)

Mathematics Education (MTED) -MNTC Goal 2-

- 201 Technology-Based Geometry and Other Essential Mathematics for Elementary Teachers (4)

Music (MUS) -MNTC Goal 2-

- 203 Theory III (4)

Nursing (NURS) -MNTC Goal 2-

- 392 Cardiovascular Risk Prevention (3)

Philosophy (PHIL) -MNTC Goal 2-

- 110 Critical Thinking (3)
- 210 Inductive Reasoning (3)
- 250 Symbolic Logic (3)

Physics (PHYS) -MNTC Goal 2-

- 223 University Physics III (4)

Psychology (PSY) -MNTC Goal 2-

- 308 Experimental Psychology (3)

Residential College (RESC) -MNTC Goal 2-

- 150 Insights and Implications (3)

Statistics (STAT) -MNTC Goal 2-

- 303 Introduction to Engineering Statistics (3)
- 305 Biometry (3)
- 310 Intermediate Statistics (3)
- 321 Industrial Design of Experiments I (3)

Theatre and Dance (THAD) -MNTC Goal 2-

- 119 Play Reading (3)

Women's and Gender Studies (WS) -MNTC Goal 2-

- 373 Feminist Theory/Process (3)

SCIENCE AND SOCIAL POLICY (3 S.H.)**Biology (BIOL) -MNTC Goal 10-**

- 104 Environment, Society, and Conservation (3)
- 109 Microbes and Society (3)
- 269 Human Reproduction (3)
- 490 Issues in Biology (3)

Chemistry (CHEM) -MNTC Goal 10-

- 320 Environmental Chemistry (4)

Computer Science (CS) -MNTC Goal 10-

- 210 Computers in a Global Society (3)

Economics (ECON) -MNTC Goal 10-

- 315 Environmental and Natural Resource Economics (3)
- 450 Health Economics (3)

Engineering (ENGR) -MNTC Goal 10-

- 102 Introduction to Engineering (2)
- 390 Composites Manufacturing (3)
- 480 Design Project II (3)

Geoscience (GEOS) -MNTC Goal 10-

- 102 Resources of the Earth (3)
- 103 Natural Disasters (3)
- 108 Geology of the Mississippi River (3)
- 325 Environmental Geoscience (3)

Philosophy (PHIL) -MNTC Goal 10-

- 330 Biomedical Ethics (3)

Physics (PHYS) -MNTC Goal 10-

- 140 Energy (3)

Political Science (POLS) -MNTC Goal 10-

- 340 Environmental Policy (3)

Psychology (PSY) -MNTC Goal 10-

- 298 Health Psychology (3)
- 330 Psychology and the Law (3)
- 360 Personnel Psychology (3)

GLOBAL PERSPECTIVES OR MULTICULTURAL PERSPECTIVES (3 S.H.)**GLOBAL PERSPECTIVES****Economics (ECON) -MNTC Goal 8-**

- 404 International Economics (3)
- 415 International Economic Development (3)
- 430 Asian Economies in Transition (3)

Finance (FIN) -MNTC Goal 8-

- 440 International Finance (3)

Global Studies (GS) -MNTC Goal 8-

- 200 Introduction to Global Studies (3)
- 205 Global Cultural Encounters (3)
- 210 Introduction to North America (3)
- 250 Introduction to Asia (3)
- 255 Peoples and Culture of South and Southeast Asia (3)
- 300 Contemporary China (3)

History (HIST) -MNTC Goal 8-

- 123 East Asian Civilization (3)
- 165 Latin American History (3)
- 170 African Civilization (3)

Political Science (POLS) -MNTC Goal 8-

- 205 The United Nations in World Affairs (3)

Residential College (RESC) -MNTC Goal 8-

- 232 Interdisciplinary Approach to an Overview of Latin America and the Caribbean (3)
- 233 Interdisciplinary Approach to Latin American and Caribbean Immigrants in U.S. Society (3)
- 234 Interdisciplinary Approach to Gender and Latin American Society through 20th Century Literature (3)
- 235 Interdisciplinary Approach to Women and Social Justice Issues in Latin America (3)

Social Work (SOCW)

- 445 Globalization of Social Welfare (3)

MULTICULTURAL PERSPECTIVES**Business Education (BUED) -MNTC Goal 7-**

- 350 Quality of Work Life (3)

Chinese (CHIN)

- 201 Advanced Beginning Chinese I (4)
- 202 Advanced Beginning Chinese II (4)

Communication Studies (CMST) -MNTC Goal 7-

- 281 Intercultural Communication (3)
- 290 Disability Communication and Culture (3)
- 291 Topics in Multicultural Communication (3)

- Economics (ECON) -MNTC Goal 7-**
435 North American Economics (3)
- Education (EDUC) -MNTC Goal 7-**
308 Human Relations and Student Diversity (3)
- English (ENG) -MNTC Goal 7-**
107 ESL: Academic Reading & Writing II (3)
220 Multicultural American Literatures (3)
221 Topics in World Literature (3)
- Foreign Languages (FREN, GERM, SPAN) -MNTC Goal 7-**
201 Intermediate French I (4)
202 Intermediate French II (4)
201 Intermediate German I (4)
202 Intermediate German II (4)
201 Intermediate Spanish I (4)
202 Intermediate Spanish II (4)
- Geography (GEOG) -MNTC Goal 7-**
223 Geography of the Orient (3)
225 Geography of Latin America (3)
- History (HIST) -MNTC Goal 7-**
220 Introduction to African-American History (3)
235 History of the American Indian (3)
- Japanese (JPN) -MNTC Goal 7-**
201 Advanced Beginning Japanese I (3)
202 Advanced Beginning Japanese II (3)
- Music (MUS) -MNTC Goal 7-**
114 World Music (3)
115 Music of East and Southeast Asia (3)
116 Music of the Americas (3)
- Nursing (NURS) -MNTC Goal 7-**
325 Transcultural Issues in Health Care (3)
- Physical Education and Recreation (PER) -MNTC Goal 7-**
265 Leisure in Different Cultures (3)
- Political Science (POLS) -MNTC Goal 7-**
225 Ethnic Conflict and Nationalism (3)
226 Politics and Society in Africa (3)
270 Politics and Society in the Middle East (3)
335 Latin American Political Systems (3)
390 Comparative Politics - Third World (3)
- Women's and Gender Studies (WS) -MNTC Goal 7-**
220 Power, Privilege, and Gender (3)

CONTEMPORARY CITIZENSHIP OR DEMOCRATIC INSTITUTIONS (3 S.H.)

CONTEMPORARY CITIZENSHIP

- Accounting (ACCT) -MNTC Goal 9-**
211 Financial Accounting Principles (3)
- Business Administration (BUSA) -MNTC Goal 9-**
106 Introduction to Business (3)
- Business Education (BUED) -MNTC Goal 9-**
215 Personal Finance (3)
360 Interpersonal Business Relations (3)
- Counselor Education (CE) -MNTC Goal 9-**
200 Career/Life Decision Making (3)
220 Emotions and Behavior (3)
- Economics (ECON) -MNTC Goal 9-**
320 Business-Government Relations (3)
420 Labor Economics (3)
- Education (EDUC) -MNTC Goal 9-**
120 Parenting (3)
- English (ENG) -MNTC Goal 9-**
211 Writing in Communities (3)
- Finance (FIN) -MNTC Goal 9-**
201 Introduction to Finance (3)
- Health, Exercise and Rehabilitative Sciences (HERS) -MNTC Goal 9-**
235 Professional Issues in Exercise Science (3)
- Marketing (MKTG) -MNTC Goal 9-**
100 Marketing and Society
- Music (MUS) -MNTC Goal 9-**
298 Foundations and Principles of Music Education (2)
- Nursing (NURS) -MNTC Goal 9-**
120 Introduction to the Health Professions (3)
260 Women's Health Issues (3)
- Philosophy (PHIL) -MNTC Goal 9-**
130 Moral Problems (3)
332 Philosophy of Law (3)
- Physical Education and Recreation (PER) -MNTC Goal 9-**
421 Outdoor Education and Interpretive Services (3)
- Political Science (POLS) -MNTC Goal 9-**
218 Community Service (3)
228 Public Service (3)
- Statistics (STAT) -MNTC Goal 9-**
350 Design of Samples and Surveys (3)

DEMOCRATIC INSTITUTIONS

- History (HIST) -MNTC Goal 9-**
125 Classical History (3)
- Mass Communication (MCOM) -MNTC Goal 9-**
100 Mass Media and Society (3)

- Philosophy (PHIL) -MNTC Goal 9-**
220 Philosophy of Democracy (3)
335 Constitutional Philosophy (3)
- Political Science (POLS) -MNTC Goal 9-**
135 Comparative Political Systems (3)
220 Civil Rights and Civil Liberties (3)
332 European Political Systems (3)
343 Human Rights in Theory and Practice (3)

FLAG REQUIREMENTS (12 S.H.)

Students may use University Studies Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. In this catalog, flag course offerings are listed in each academic department's Program Description. The list of Flag courses is continually updated as additional or new courses are approved. For the most recent list of approved flag courses in the University Studies Program, see <http://www.winona.edu/registrar>.

MAJOR/MINOR REQUIREMENTS

In addition to University Studies requirements, all students in B.A. or B.S. degree programs must complete requirements for an academic major or specialization. The major provides the student with in-depth practical and theoretical knowledge in a particular area of study. Many majors or areas of specialization offer students alternative paths of study or options. Students are also encouraged to pursue their interests by taking elective courses related to their major. Some degree programs require the student to complete a minor.

To declare a major, minor, or licensure program, complete the following steps:

1. Determine what major/minor program you wish to pursue. Check the program descriptions in this catalog to determine the major/minor program requirements. Because requirements may have changed since this catalog was printed, you are advised to consult with the Registrar's Office and the department offering the major or minor before making academic decisions.
2. If the major/minor program you wish to pursue is not listed in the current catalog, consult with the appropriate academic department to determine program requirements.
3. Complete the Declaration/Change to Major/Minor/Licensure Program form, and submit it to your major department, your academic advisor, or the Registrar's Office. When you declare (or change) your major/minor/licensure program, you must conform to the requirements effective on the date indicated on the Declaration/Change to Major/Minor/Licensure Program form.

Program requirements must be completed within seven years after declaring or changing a major/minor/certification. If the seven-year limit expires before the student completes the program requirements, the student must then complete the program requirements effective on the day after the seven-year limit expired.

GRADUATION REQUIREMENTS

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 the student signs a guarantee and complies with its terms and conditions, the student is assured graduation after completing four years of full-time study. If a student signs a guarantee and complies with the conditions but does not receive a diploma, WSU promises that the student can complete any remaining required courses tuition-free. For more information, contact the appropriate department or college dean.

To determine whether the major you intend to declare participates in the Four-year Graduation Guarantee Program, contact the Office of Admissions (Somsen Hall, Room 106).

Associate in Arts Degree - AA (2-Year)

To be eligible for graduation, the student must satisfy the following requirements:

1. Complete a minimum of 64 credit hours.
2. Complete at least 16 of the 64 credit hours at WSU.
3. Complete the University Studies requirements except for the Flag Requirements.
4. Accumulate an overall "C" average (2.00 GPA or higher).
5. Be enrolled at WSU during the semester of graduation.
6. Submit a completed Graduation Application to the Registrar's Office at least two semesters before the expected graduation date. See page 17 for the detailed application, approval, and notification procedures.



Baccalaureate Degrees (4-Year)

To be eligible for graduation, a student must satisfy the following requirements:

1. Complete a minimum of 128 credit hours.
2. Complete at least 30 of the 128 credit hours in residence during the junior and senior years combined. Residence credit is credit for classes taught by WSU faculty as well as credit earned under the Minnesota State University Common Market Program; it does not include credit by examination.
3. Complete the University Studies Program requirements.
4. Accumulate an overall "C" average (2.00 GPA or higher).
5. Be enrolled at WSU during the semester of graduation.
6. Bachelor of Science (teaching) candidates must complete the Professional Education Sequence, including student teaching.
7. Complete, with a "C" average, either a broad major of 47 credit hours or more or a major of fewer than 47 credit hours combined with a minor or a second major. (With a broad major, a minor is not required.) Students should be aware of the following considerations related to the major requirements:
 - a. A student cannot have a minor, option, or concentration that consists wholly of courses that are required in the major or option in which he/she is earning a degree.
 - b. Students can use a course to meet requirements in any major, minor, option or concentration requiring the course. However, they may not use a course in their major to meet arts and sciences core requirements unless it is an additional requirement (see page 19). Credit earned in a course counts only once toward the minimum 128 semester credits required for graduation.
 - c. 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 the department prohibits that practice.
 - d. Certain departments require students to earn a "C" or better in each course within their major/minor or to earn a "C" or better in specific courses in their major/minor. Students should consult with the department offering the major or minor for any additional GPA requirements.
 - e. The major GPA does not include grades earned in additional requirements courses. (For more information, see page 19.)
8. Submit an Application for Graduation to the Registrar's Office. See page 17 for more details about how to apply for graduation.

Notes:

- No degree is awarded until all grades are finalized; "I" or "IP" grades cannot remain on the permanent record.
- The student has the final responsibility for selecting and registering in courses that meet curriculum requirements.

Dual Degrees

If a student completes two majors that fall under different degrees (for example, Bachelor of Arts and Bachelor of Science), only one degree is posted to the student's academic record unless the student completes 30 semester hour credits at WSU after the first degree is posted. The student may choose which degree is posted; however, if the student completes a Bachelor of Science (teaching) major and wishes to get a teaching license, the student is encouraged to have that degree posted.

If a student returns after graduation from WSU to earn an additional (different) bachelor degree at WSU, the student must complete a minimum of 30 additional credits for the second degree. If a student completes another major but does not complete the additional 30 credits, the major is recorded on the permanent record, but the additional degree is not recorded nor is another diploma awarded. The student receives only one diploma for each degree earned.

Teaching Degree Requirements for Post-Baccalaureate Students

A Bachelor of Arts graduate who holds a degree from WSU or another accredited institution may qualify for teacher licensure by complying with certain requirements, which are detailed in the Department of Education section on page 87.

ALTERNATIVES FOR EARNING ACADEMIC CREDIT

In addition to taking courses described in this catalog, students may make progress toward academic and career goals by:

1. Participating in special learning activities described in the section entitled "Other Academic Resources" (e.g., Cooperative Program with St. Mary's University; Minnesota State University Common Market program; Outreach and Continuing Education Department, Study Abroad Program). (See page 29.)
2. Exercising alternatives such as credit by examination, independent study, internships, which are described in this section of the catalog.

Credit by Examination

If students can satisfy the requirements of a particular course by a written or oral examination, they may be able to get credit by departmental examination without formally enrolling in the course. This policy allows students to receive credit if they have completed equivalent study at a non-accredited school or if they can present evidence of independent study and related work experience. Students cannot use this process to repeat a course to improve a grade.

To be eligible, the student 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 requested. To apply, the student should request a Credit by Examination form from the Registrar's Office (Somsen Hall, Room 114) and obtain the necessary approvals from the academic dean and department offering the course to be credited.

Substitution of a Course

A student may request that a particular course be substituted for a course required in the student's major or minor. The course to be substituted may be one that the student has completed at WSU or at another college/university; it should carry the same credit and level as the course it is to replace. To request a course substitution, students should request an application from the Registrar's Office (Somsen Hall, Room 114) and obtain approvals from the academic department offering the course.

Audited Courses

The auditing procedure permits a student to attend a course without performing graded work. An audited course appears on the student's transcript, but carries no academic credit. Audited courses cannot be used to satisfy graduation, certification, or licensure requirements. Courses pursued on an audit basis must be declared and processed during the registration period. A decision to change from a graded basis to an audit basis must be finalized by the published add/drop deadline for the semester. Regular tuition charges apply. See page 15 for registration information.

Independent Study

Projects beyond the scope or range of any courses offered at WSU can be pursued as independent study at the discretion of the appropriate faculty member, department chairperson, and dean. To be eligible, the student must be fully matriculated with an established cumulative GPA at WSU of 2.00 or higher. Students must apply for independent study according to announced deadlines (see Academic Calendar) and register for the course during the designated registration period. See page 16 for registration information.

Internships

Internships provide students academic credit for a supervised on-the-job work experience. Students apply the knowledge and skills learned in an academic setting to a professional work environment. A number of departments offer specific courses granting internship credits. Students must be fully matriculated to enroll in an internship. WSU policy indicates that students must have a minimum GPA of 2.00 to enroll in an internship; however, some departments require a higher minimum GPA.

University policy limits the number of credits that may apply toward a degree as follows: 12 internship credits per semester and 16 internship credits in total. In cases where combined internship credits in a major and/or minor will exceed 16 credits, a maximum of 21 semester credits may be applied toward graduation. However, individual departments may set a maximum number of credits awarded for internships.

Students should refer to the appropriate department listing for specific internship details, including minimum GPA, prerequisites, and credit limitations. Internships are offered on a pass/no credit basis, except 3 semester credits may be taken for a grade with approval of the department and academic dean. See page 16 for registration information.

GRADING AND CREDIT POLICIES

Credit Load

One hour of credit is granted for one lecture or class period of 50 minutes per week for 15 weeks. Most courses are credited with 3 or 4 semester hours. Laboratory classes, internships, practica, and other special courses typically offer fewer credits per hour of instructional time. To be considered full-time, a student must take a minimum of 12 credit hours per semester. Students who wish to enroll in more than 19 semester credits must obtain prior approval from the academic dean.

The University may restrict the number of credits in which a student can enroll if it determines that previous low scholarship, out-of-school obligations, or similar factors might interfere with satisfactory performance of the student's obligations. The University may restrict a

student from registering if the student fails to follow proper registration procedures.

To complete degree requirements in four years (8 semesters), students must earn an average of 16 semester credit hours each semester. For more information about the four-year graduation guarantee, see page 22.

Class Attendance

In order to improve students' access to classes they need and want, the faculty has adopted a policy that requires student attendance at the first meeting of all classes. The purpose of this policy is to identify students who have decided to drop a particular class as early as possible so that students who want to enroll in that class will be able to do so.

If a student wishes to continue in a class but is unable to attend the first class meeting due to circumstances beyond his/her control, the student should notify the instructor or academic department before the first class meeting. If a student wishes to withdraw from a class, the student is responsible for dropping the class (page 26).

An instructor may choose to cancel a student's registration if the student fails to attend the first class meeting of a closed (i. e., full) class; however, the instructor is not required to do so. The student must not assume that the instructor will cancel his/her registration for a class, even if the class is closed. If the instructor cancels the student's registration, a notice will be sent to the student's permanent address.

Other than this policy regarding attendance at the first meeting of a class, the University has no overall policy governing class attendance. Each instructor establishes and announces an attendance policy and has the responsibility and authority for enforcing it.

Grading System

Work in any course is evaluated in accordance with the following system of letter grades:

A - Excellent	F - Failing	W - Withdrawal
B - Very Good	NC - No Credit	V - Audit
C - Average	I - Incomplete	IP - In Progress
D - Below Average	P - Pass	H - Honors

The notation of "Z" on an unofficial transcript indicates that no final grade has been reported yet. At the close of a semester, a "Z" grade is replaced with one of the other grades.

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 GPA 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 GPAs do not include Additional Requirements (i.e. Arts and Sciences courses outside the major department that are required courses in certain majors; see page 19). Although courses taken on a pass/no credit basis grant credit toward graduation, the credit does not affect the GPA.

For probation and suspension decisions, only courses and credits taken at WSU count in the computation of GPAs.

Incomplete Grades

An "Incomplete" is reserved for special cases in which the student, for reasons beyond his/her control, is unable to finish an important assignment or other required coursework by the end of the semester, though the student is passing in all other aspects. An Incomplete cannot be used to gain time to perform extra credit work to improve a potentially low course grade.

Students must complete the prescribed requirements of the course before mid-term of the next semester. Once the requirements are satisfied, the instructor will submit a completed Change of Grade/Incomplete form to the Registrar's Office. The Registrar must receive a grade to replace the "I" by mid-term day of the next semester. If an "I" is not replaced with a grade within the specified time, the incomplete grade automatically becomes a failing grade. If an "IP" is not replaced with a grade before the student completes graduation requirements, it becomes a failing grade.

An instructor may assign a grade of IP (In Progress) to a student who is in a course that is not expected to end at the close of a semester. Certain internships and arranged classes, for example, are designed to continue beyond the close of a semester. If an "IP" is not replaced with a grade within one year of the close of the semester in which the course was offered, it becomes a failing grade.

Repeated Courses

When a student repeats a course, he/she must take the course on a regular graded basis (i.e., letter grade). When a student repeats a course, only the last grade received and credits earned are included in the GPA computation. If the student withdraws (W) while repeating a course, the original grade is included in the GPA computation.

At registration, the student must submit the appropriate forms to the Registrar's Office, indicating that a particular course is being repeated. Without this notification, the student's academic records may be adversely affected. Students should be aware that repeating courses will slow their academic progress and may delay graduation, because they will only receive credit for the most recent offering of the course. Once a baccalaureate degree has been awarded, the student cannot repeat any course to improve his/her GPA.

Pass/No Credit (P/NC) Courses

The University's P/NC grading classification enables students to enroll in unfamiliar or difficult academic subjects without fear of jeopardizing their GPA. It is intended to introduce students to lifelong learning-learning that does not 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. When the course is completed, either P (pass) or NC (no credit) is entered in the student's permanent record. P is interpreted as equivalent to an A, B, C or D letter grade. If the student receives a "grade" of NC, the course can be repeated; however, it must be repeated for a letter grade, and the grade will be included in the student's GPA (see "Repeated Courses" above).

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

Students cannot take more than six P/NC credits per semester except for 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 "Pass" credits. Optional P/NC courses, mandatory P/NC courses, student teaching and/or internships all are counted in the 32-credit limitation. For optional P/NC courses, the student must decide, by the last day of the drop/add period, whether the course is being taken on a P/NC basis. See page 15 for more information about declaring/changing the grading method for a course.

Final Examinations

A final examination is required for every course taught at WSU. The course instructor determines the content of the final examination. Students can find out when an exam is to be given by going to www.winona.edu/class_schedule and clicking on the link to the appropriate semester's exam schedule. Exams are scheduled according to the following guidelines:

- Because the semester extends through the final exam week, classes are expected to meet as designated in the final exam schedule.
- An instructor who wishes to reschedule an exam during final exam week must receive prior approval from the college dean.
- Courses of more than two credits will have final exam times determined by the day the class first meets for lecture each week. Final exams for classes beginning on Monday, Wednesday, or Friday will meet at MWF times. Final exams for classes beginning on Tuesday or Thursday will meet at TH times.
- Examinations in classes offered for one or two credits will be given



during the last regularly scheduled class period prior to the first day of the final examination schedule.

- The responsibility for allowing exceptions for individual students rests with the student and the instructor.
- The content of the final examination is determined by the course instructor, who is encouraged to consult with the students prior to giving the final.
- Evening class final exams adhere to the published schedule for evening classes. All other classes follow the day class schedule.
- Some classes may begin at times other than the regularly scheduled start times. Final exams for these classes will be held at the examination time schedule for the class period in which the start time of the class falls (example: a class beginning at 9:00 A.M. Tuesday and Thursday will have its final exam at the time scheduled for 8:00 - 9:20 A.M. TH classes).

GRADE APPEAL POLICY

The evaluation of student performance in courses and the reporting of appropriate grades are faculty responsibilities. However, students sometimes feel that their academic work has been evaluated unfairly. The process for student appeals of grades is as follows:

1. Any student who considers appealing a grade will confer with the instructor, within the first 10 academic calendar days of the next term (excluding summer terms), in an attempt to resolve the dispute.
2. If the student and the faculty member come to agreement, the process ends.
3. If the student and the faculty member do not come to agreement, then the student may file a written grade appeal, using the Grade Appeal form, which is available in the Registrar's Office and at the University Center Rochester student services desk. The written appeal must be sent to the chairperson of the Grade Appeals Committee within 30 academic calendar days of the next term (excluding summer terms), and a copy of the appeal to the Vice President for Academic Affairs.

A Hearing Committee, which is a subcommittee of the Grade Appeals Committee, will review the case as presented by the student and the faculty member. Both parties are entitled to assistance and advice from members of the academic community in presenting their case to the subcommittee. The Hearing Committee may recommend that the instructor do one of the following:

- a. Make no change in the grade
- b. Re-evaluate the student's academic work
- c. Change the grade

The finding of the Hearing Committee is final. It will be conveyed to the student, the instructor, the Vice President for Academic Affairs, and the chairperson of the Grade Appeals Committee. Within seven (7) calendar days, the course instructor will inform the student, Grade Appeals Committee chairperson, and the Vice President for Academic Affairs of the action taken regarding the Hearing Committee's recommendation. The instructor is not obligated to comply with the recommendation of the Hearing Committee.

ACADEMIC PROGRESS Classification of Students

Based on credit hours completed, students are classified as follows:

	Credit Hours
Freshman	0 - 29
Sophomore	30 - 59
Junior	60 - 89
Senior	90+

Freshmen are not eligible to enroll in courses numbered in the 400-level. In order to make continuous progress toward a four-year degree, a student must take an average of 16 credits per semester. A "freshman,"

therefore, is usually a first-year student; a sophomore is usually a second-year student, and so forth. Because a student's credit load in any semester may vary from the average, classification by credit hours is a more informative indicator of progress toward a degree than time spent in school.

Satisfactory Progress

To maintain good academic standing, a student must have a minimum WSU cumulative GPA of 1.75 for the first 15 degree credits attempted (including any credits attempted at other schools) and 2.00 thereafter. The cumulative GPA used to determine satisfactory progress is based solely on courses attempted and grades earned at WSU.

The satisfactory progress requirements that are used to determine eligibility for financial aid (page 10) are more stringent than the requirement listed in this section.

Academic Honors

WSU offers many opportunities for students to achieve academic honors including the Dean's List and Graduation with Honors. Students are encouraged to take advantage of the various department-level and university-level opportunities to earn recognition of their academic excellence and achievements.

WSU belongs to several national fraternities that recognize scholarship and a commitment to service, including Alpha Lambda Delta (first-year students with 3.50 GPA), Golden Key International Honor Society, and the National Residence Hall Honorary Society.

Honor Societies

Some academic departments have joined national honors societies, and other departments are in the process of doing so. If your major is not included in the following list, contact the chairperson of your department to learn what activities are underway regarding honor societies.

Biology	Beta Beta Beta
Communication Studies	Lambda Pi Eta
Education	Kappa Delta Pi
	Alpha Omega Upsilon
Mathematics	Pi Mu Epsilon
Nursing	Sigma Theta Tau
Political Science	Pi Sigma Alpha
Psychology	Psi Chi
Social Work	Alpha Delta Mu

Department Honors Programs

Some departments have honors programs with specific requirements for admission and an honors thesis project. Departments offering honors programs include biology, nursing, and psychology. It is the University's expectation that the number of departments offering departmental honors will increase over the next few years.

Dean's List

Undergraduate students are included on the Dean's List if they 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.

Graduation with Honors

Note: When this catalog went to print, the criteria for graduation with honors were under administrative review. Please go to www.winona.edu/registrar to see the criteria in effect as of Fall 2006.

Academic Warning and Suspension

To remain enrolled in the University, students must be in good academic standing at the end of each academic year. A Notice of Academic Warning is sent to any student who is not in good academic standing at the end of the fall semester of each academic year. If, at the end of the spring semester, the student's cumulative GPA is below the minimum required for good academic standing, the Vice President for Academic Affairs will suspend the student. Students newly admitted to the University in the spring semester are not subject to suspension until the following spring semester.

Once a student is suspended, he/she can submit a written appeal for readmission. If the written appeal is denied, the student can appeal in person to the Academic Review Committee. If the appeal is granted, the student is eligible to return during the next academic year. Instructions for submitting an appeal are included in the Notice of Suspension.

Re-Admission after Suspension

If the student does not appeal a suspension or if the appeal is denied, the student must comply with the following suspension policy regarding University enrollment. The student cannot enroll:

- For one semester after receiving the first Notice of Suspension.
- For a full academic year after receiving a second Notice of Suspension.
- For two full academic years after receiving a third Notice of Suspension.

A student may enroll in courses at WSU during the summer sessions even though he/she has been suspended. Students who have returned to the University after complying with the suspension policy, but who do not return to good academic standing within the academic year in which they re-enroll, are subject to suspension again at the end of the academic year. For answers to specific questions regarding the suspension policy or procedures, contact the Advising and Retention Center (Phelps Hall, Room 129).

Academic Pardon

The purpose of the academic pardon policy is to grant students a one-time pardon for past failures and to allow them to resume their college careers with a realistic possibility of completing a degree. Academic pardon may be attractive for a student who has left WSU with a very low GPA, gained life experience, and returned after an extended absence to resume degree work. If the student has not yet applied for graduation, he or she may request that grades earned during a specified period of the previous undergraduate career be held aside during calculation of an adjusted cumulative grade point average, as described below.

Approval of academic pardon has the following consequences:

1. The cumulative GPA will be recalculated. The new GPA will be based on courses completed after the student was re-admitted. Grades and credits attempted during the period for which academic pardon has been approved will not be used in calculating the cumulative GPA that is printed on transcripts and in determining whether graduation requirements have been met.
2. Grades in which the student received a grade of "C" or better prior to being re-admitted will be used for academic credit but not used in calculating the GPA.
3. The following statement will appear on transcripts of the student's academic record: "This student was granted Academic Pardon under the WSU Academic Pardon Policy. All WSU courses with a grade of "C" or better taken prior to re-admission and granting of academic pardon were given academic credit, but were not used in the calculation of the WSU GPA."
4. Grades the student received during the period of academic pardon will remain unchanged as a permanent part of the student's academic record, and will be printed on all transcripts of that record.
5. The student must meet all major/program requirements in effect at the time he/she was re-admitted.
6. The student is not eligible for academic honors at graduation (i.e. Cum Laude, Magna Cum Laude, Summa Cum Laude).

DROPPING CLASSES

Note: Students should be aware that dropping classes may slow their academic progress and may delay graduation.

When students register for classes, the University reserves seats in those classes for them, and the University provides course syllabi and other materials for their use. Because course availability is limited, a student's registration may also prevent other students from taking a particular class. Therefore, registration in classes obligates each student to pay tuition and other fees unless she/he drops those classes before the "drop-without-tuition-obligation" deadline.

The "drop-without-tuition-obligation" deadline is the sixth day on which classes are offered in the fall and spring semesters, and the third day on which classes are offered in a summer session. Classes that begin in the middle of a fall or spring semester or a summer session and classes that meet only once a week must be dropped before the second class meeting in order to avoid a tuition charge. The "drop-without-tuition-obligation" deadline for short courses (three days or less) is the first class meeting. Specific drop/add dates are listed in the academic calendar.

Classes dropped before the "drop-without-tuition-obligation" deadline are not recorded on transcripts of the student's academic record. Classes dropped between that deadline and the final withdrawal deadline are recorded on transcripts of the student's academic record with a grade symbol "W" (meaning, "withdrew"). Credits in courses with the "W" symbol are not included in the computation of GPAs.

MnSCU expects WSU to charge tuition and fees based on enrollment, not on attendance. Therefore each student's tuition charge will be based



on all courses in which she/he is enrolled after the drop-without-tuition-obligation deadline, even if the student has never attended those classes.

In order to increase the numbers of students served, WSU allows instructors to drop students who do not attend the first class meeting. However, instructors may drop students from closed classes only, but they are not required to do so. Therefore, students are responsible for dropping any class that they have decided not to take. Students must not assume that someone else will take care of it for them. Students may drop classes using either the WSU website or staff assistance:

- If you use the website, always print a copy of your schedule after you have finished dropping classes. The printed copy should confirm that the Internet transaction was completed. Also, your computer screen should display a message indicating that the transaction was successfully completed. If it does not, the transaction was probably not successful.
- If you use staff assistance, always ask the staff person for a copy of your schedule.

WITHDRAWAL

If a student intends to transfer from WSU to another school, it is best to do so at the end of a semester in order to present a complete academic record to the new school and to avoid losing the financial investment and the effort committed to a semester in-progress. WSU recognizes, however, that this is not always possible.

Deciding Whether to Withdraw

If you are thinking about withdrawing in the middle of the semester, you owe it to yourself to be well informed and to consider all the consequences. Use the following checklist as you ponder this decision:

- ☑ Talk with your academic advisor. She/he will remember your academic and career objectives and listen to your concerns. Your advisor will also be able to help you plan for completing your college education at a later time.
- ☑ Make an appointment to see one of the staff members in the Advising and Retention office (Phelps Hall, Room 129; 457-5600).
- ☑ If you are having academic difficulty in one or more of your classes, check out the Academic Assistance Center (Library, Room 202) or Student Support Services (Howell Hall, Room 133; 457-5465). See page 28 for more information about specific services available and eligibility for these services.
- ☑ If you are not sure that you have chosen a major or career path that is right for you, visit the Career Services office (Gildemeister Hall, Room 110; 457-5340).
- ☑ If you are experiencing personal problems, help is available in the Counseling Center (Gildemeister Hall, Room 132; 457-5330).
- ☑ If you are experiencing illness, contact Student Health Services (Maxwell Hall; 457-5160).
- ☑ If you are having trouble paying tuition and fees, you may be able to work out a payment plan with the Accounts Receivable office (Somsen Hall, Room 104; 457-5076).

- ☑ If you are living on campus and are having problems with your roommate or accommodations, contact your Residence Assistant, Residence Hall Director, or the Housing and Residence Life office to find out what changes can be made (Kryzsko Commons, Room 130; 457-5305).

If you withdraw during the term and receive financial aid through the University, you may be expected to return part of it, corresponding to the portion of the semester in which you are not enrolled. If you plan to return to WSU or transfer to another school, leaving in the middle of the term may make you ineligible to receive government-sponsored financial aid in the future.

Withdrawing from the University

If, after exploring your options, you decide to leave the University, here is a checklist of things you should do:

- ☑ Be sure to drop your classes, either on the WSU website or with the assistance of staff members as follows:
 - Winona classes: Registrar's Office (Somsen Hall, Room 114; 457-5030)
 - Rochester classes: UCR Service Desk (507-285-7100)
 - Extension classes: Outreach and Continuing Education (Somsen Hall, Room 109; 457-5080)
- ☑ Return your laptop computer to the Technical Support Center in Somsen Hall, Room 207. You are responsible for paying the laptop fee for any semester in which you are enrolled at WSU. If you are not enrolled and do not return the laptop by the start of the next semester, you will be charged a late fee.
- ☑ If you are leaving the University for only a semester or two, pick up an Intent to Return/Application for Readmission form at one of the registration offices above. Complete it and submit it at least one month before you plan to register for classes for your first term back.
- ☑ Check with the Accounts Receivable office (Somsen Hall, Room 104; 457-5076) to make sure your account is paid in full or to inform yourself of the balance on your account and the University's collections policies.
- ☑ If you are leaving in the middle of the semester and have received financial aid through the University, find out in the Accounts Receivable office whether you will be expected to return any of the aid you have received.
- ☑ If you are living in a campus residence, formally check out of your room with your Residence Assistant or the Residence Hall Director. You may withdraw from the University (drop all of your classes) anytime during the semester until the final withdrawal deadline. If you withdraw from the University within a few weeks after the "drop-without-tuition-obligation" deadline, you will receive a partial refund of tuition and fees, based on the date of your withdrawal, and in accordance with a pro-rated refund schedule (page 9). Each term's pro-rated refund schedule is published on the WSU website.

ACADEMIC INTEGRITY POLICY

At WSU, academic integrity is based on honesty. The University community requires that work produced by students in the course of their studies represents their personal efforts and requires that students 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 Academic Integrity 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: Refers to 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. Students accused of violating the academic integrity policy have the following due process rights:

1. Oral or written notice of the charges from the faculty member.
2. An explanation of the evidence against the student.
3. An opportunity for the student to present his/her 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 Appeals Committee. In cases involving accusation of academic dishonesty, the committee will make a recommendation to the appropriate academic dean rather than to the instructor, as is usually the case with standard grade appeals (page 25). The decision of the academic dean (or designee) 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 Appeals 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 Office of Student Affairs to be processed under the guidelines of the WSU Student Conduct Policy. Students found responsible for a 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 Office of Student Affairs (Kryzsko Commons, Room 129) or website (www.winona.edu/studentaffairs).

ACADEMIC RESOURCES

ACADEMIC ADVISING

Advising and Retention
Phelps Hall, Room 129 (507-457-5600)
www.winona.edu/advising

WSU's academic advising system is designed to help students make well-informed decisions. Students are ultimately responsible for being aware of the policies and requirements that affect their academic progress and for making appropriate decisions about choosing courses and a major, as well as other academic matters. Because this is a vital responsibility, the University offers the guidance of experienced professionals, through whom students learn about University objectives, requirements, support services, activities, and policies. As a result of advising, students should understand themselves better and learn to use resources to meet their specific educational needs.

Each student is assigned an advisor. Students who have declared a major are assigned an advisor in the department of their declared major. New students who have not declared a major are assigned to their orientation instructor for advising. Prior to each registration, the student must meet with the advisor to discuss course selection and obtain an access code for web registration. Students are encouraged to meet with their advisors at other times as well to discuss academic and career goals.

To get the greatest benefit from advising, each student should maintain a file of documents related to his or her academic progress and should bring the file to advising appointments. At a minimum, the file should include a copy of the student's current schedule, electronic degree audit report (DARS), and unofficial academic record. These documents are available to the student through the web registration system. Students will find the name of their advisor printed on their course schedule and on the DARS report. If no advisor is listed, the

student should contact the department offering his/her major to request an advisor. Students who have not declared a major should report to the Advising and Retention Center for assistance.

NEW STUDENT ORIENTATION

Advising and Retention
Phelps Hall, Room 129 (507-457-5600)
www.winona.edu/advising/

To assist new students in their transition into the University, WSU offers an orientation course (OR 100, Introduction to Higher Education) for incoming first-year students. OR 100 begins with academic and social activities the week prior to the start of fall semester. This course introduces students to services, activities, expectations, and opportunities at WSU, and it provides them with the means to network with other students, faculty, and staff. Incoming students register for OR 100 (1 S.H.) during New Student Registration.

ACADEMIC ASSISTANCE CENTER

Library, Room 202
www.winona.edu/tutoring

The Academic Assistance Center (AAC) offers free peer tutoring and Supplemental Instruction (SI). Peer tutoring is available in a wide variety of subjects during drop-in hours or by appointment. SI sessions are regularly scheduled, informal review sessions in which students compare notes, discuss readings, and develop organizational and study tools under the guidance of a student who has already excelled in the course. Students can view information about the Academic Assistance Center and other helpful WSU resources by accessing the AAC web address above.



STUDENT SUPPORT SERVICES

Howell Hall, Room 133 (507-457-5465)
www.winona.edu/studentsupportservices

The Student Support Services program includes tutoring, academic advising, counseling, student leadership opportunities, and help in choosing a major. Students are eligible if they have low income, are first-generation college students, or have a disability. Students may obtain more information about the program by visiting the Student Support Services office. This is a federally funded TRIO program; services are free.

OTHER ACADEMIC RESOURCES

COOPERATIVE PROGRAM: WSU-ST MARY'S UNIVERSITY

Registrar's Office
 Somsen Hall, Room 114 (507-457-5030)

The cooperative program between WSU and St Mary's University of Minnesota (SMU) allows full-time, undergraduate WSU students to take classes at SMU and pay tuition for the credits at WSU. Participating students are required to take a minimum of 9 credits at WSU the semester in which they enroll in this program unless the department chairperson or the appropriate college dean approves an exception. To obtain information about participating in the program, students should contact the Registrar's Office.

If the student decides to take a course at SMU, he/she must get a permit, which requires the approval of the student's advisor and the WSU Registrar's Office. Then the student must present the permit to the SMU Registrar's Office for processing and return the approved permit to the WSU Registrar's Office.

MINNESOTA STATE UNIVERSITY COMMON MARKET PROGRAM

Registrar's Office
 Somsen Hall, Room 114 (507-457-5030)

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, students may take advantage of curriculum and program specialties as well as different intellectual and social climates. The home university considers credits earned under the program as "resident credit."

When students apply, they list the courses they want to take and usually include several alternate choices. The Common Market Director at the receiving institution notifies the student whether or not his/her request can be met. The student indicates his/her choice of housing on the application form, and the request is referred to the housing office at the receiving university. The student also receives assistance with transferring financial aid if necessary.

To participate in the Common Market Program, students must be fully matriculated, must have attended WSU for at least two consecutive semesters, and must have at least a 2.00 GPA. Catalogs and application forms are available in the Registrar's Office.

OUTREACH AND CONTINUING EDUCATION DEPARTMENT (OCED)

Somsen Hall, Room 109 (507-457-5080)

OCED serves as a major hub for a broad network of community partners, learners, and businesses. OCED offers a variety of learning opportunities for students at different stages of their careers, and the office coordinates programs that strengthen the University's links with its service region. Programs include continuing education, customized training, elderhostel, and others. OCED also actively seeks and creates opportunities for WSU to be a significant contributor to the economic development of our service region.

Adult Entry Program

The WSU Adult Entry Program serves the educational needs of adult students within its service area, on and off campus. The program is for adults wanting to pursue an Associate in Arts or a baccalaureate 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; the credits apply toward a degree program. For more information, contact the OCED office.

Continuing Education

Continuing Education provides non-credit courses as well as courses offering continuing education units (CEUs). CEU courses and activities are taught by WSU faculty, community resource persons, or visiting experts. 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 the student's transcript and can serve as verification for continuing education activities.

Contact the OCED office to get detailed information about CEU offerings or to discuss how WSU may be able to provide learning resources for your organization.

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 onsite 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 OCED office.

Extension Program

In addition to its regular programs, WSU 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 may be developed to provide specialized learning experiences for 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.

Students are permitted to enroll in an undergraduate extension class without having been admitted to the University. However, graduate students must complete a WSU application form. All extension courses can apply toward appropriate degree programs. For more information, contact the OCED office.

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. A one-time only fee of \$20 is required for admission to this program.

A person is considered a senior citizen if he/she reached the age of 62 before the beginning of any semester in which he/she will be enrolling in a course. Students can register for courses on a no-credit basis at no cost, or they 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. Classes are scheduled during the day at convenient locations throughout the City of Winona. For registration details, contact the OCED office.

Elderhostel: 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.

Learning Club: WSU also sponsors the Learning Club, a local, non-profit organization dedicated to the continuing education of people who have retired or are near retirement age. 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. The Learning Club provides education that is challenging yet leisurely, fun, and exciting.

STUDY ABROAD

Study Abroad Office
Minné Hall, Room 207 (507-457-5546)
Lourdes Hall, Room 156 (507-453-2517)
www.winona.edu/studyabroad

A variety of Study Abroad options are available for students of at least sophomore standing who are interested in 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. Programs vary in location, length, cost, admission requirements, application deadlines, and focus; therefore, it is important to request the most recent and detailed information.

WSU Study Abroad options include academic programs in the following international locations:

- **China:** WSU has an exchange agreement with Hebei University of Technology in Tianjin, China. Students with good academic standing can take courses in Chinese language. They can also take a range of courses offered in English in the social sciences and business. Students have the option of attending for a semester, summer session, or a full academic year.
- **Japan:** WSU has an exchange agreement with Akita International University in northern Japan. Students with good academic standing can take courses in Japanese language. They can also take a wide range of courses offered in English in the social sciences, humanities, and business; many of these courses are applicable to the Global Studies major at WSU. Students have the option of attending for a semester, summer session, or a full academic year.

- **Latin America:** This program is open to Social Work majors only during spring semester of their junior year. WSU has an exchange agreement with the Center for Global Education at Augsburg College for a social work semester in Mexico every spring.
- **South Korea:** WSU has an exchange agreement with Soonchunhyang University in Asan, South Korea. Students with good academic standing can take courses in Korean language. They can also take a range of courses offered in English that correspond to WSU Global Studies courses, which may lead to dual degrees. A paid internship as an English ambassador is also provided. Students have the option of attending for a semester or a full academic year.
- **Spain:** WSU has an exchange agreement with the University of Granada's Modern Language Center located in Granada, Andalusia, Spain. Students with good academic standing can take courses at beginning, intermediate, and advanced levels of Spanish; they can also coordinate courses through the Global Studies program. Students have the option of attending for a semester, summer session, or a full academic year.

Early and careful planning for Study Abroad is important to ensure that students can 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 and tours carry fewer credits.) To obtain preliminary information about Study Abroad, students may contact the Student Answer Center in Kryzsko Commons (457-2456). For detailed information and application, go to the Study Abroad web address shown above.

TRAVEL STUDY PROGRAM

Outreach and Continuing Education Department
Somsen Hall, Room 109 (507-457-5080)
www.winona.edu/oced/travel

The WSU Travel Study Program is designed to enrich the students' educational experience while broadening their intellectual, cultural, and social horizons. The program consists of credit-based coursework offered through various academic departments and taught by WSU faculty. The number of credits earned varies depending on the nature and extent of the learning experience provided. Courses typically last two to eight weeks and are taught in various countries including the United States. Travel study courses provide students the opportunity to engage in field research, service learning, and immersion into different communities and cultures. Courses are usually interdisciplinary and, therefore, provide students with an opportunity to integrate learning across several fields of knowledge.

Students and faculty interested in participating in or organizing a travel study course should contact the Outreach and Continuing Education Department (OCED) office, which oversees the program and arranges the logistics for travel study offerings. The OCED office can provide additional enrollment information, a list of specific travel study opportunities, and answers to frequently asked questions.



STUDENT SERVICES

Office of the Vice President for Student Affairs and Facilities
Kryzsko Commons, Room 129 (507-457-5300)
www.winona.edu/studentaffairs

The Office of Student Affairs provides students with a living/learning environment that appreciates diversity, is challenging and supportive, and promotes the development of students through integrated curriculum and co-curriculum. With an outstanding and committed team of student personnel specialists, the Student Affairs organization assists students in achieving their academic and personal potential while enjoying their WSU experience through a variety of student-centered programs, services, activities, and work experiences.

In addition, the Facilities team provides professional services to students, faculty, and staff by managing the maintenance and operation of the University facilities; they provide a safe and clean living, learning, and work environment.

SERVICES

Career Services

Gildemeister Hall, Room 110 (507-457-5340)
www.winona.edu/career
E-mail: career@winona.edu

The Office of Career Services assists students seeking career direction, part-time work on and off campus, work-study positions, summer opportunities, internships, and full-time employment. Alumni are also eligible to register for assistance in their search for full-time employment. Students are encouraged to register early to take full advantage of the broad range of services offered through Career Services.

Individual advising appointments may be scheduled to discuss career direction and questions related to the job search, to critique resumes and cover letters, and to provide tips on interviewing. Students can get assistance with developing the content of their WINGS (Winona Graduate Skills) web-based portfolios. For assistance, students can schedule an appointment with the WINGS student assistants in Room 126 of the Library, call 457-2330 for information, or e-mail questions to WINGS@winona.edu. Sample portfolios are available at www.winona.edu/career/wings.

Career Services provides opportunities for students to interact with employers through career fairs, job fairs, and on-campus interviews. For students registered with Career Services, employers have access to their resumes directly through our website. Additionally, students can access job openings or update their resumes via the Internet 24 hours a day, seven days a week. Employment information and graduate follow-up results are available in the office as well as on our website.

The Career Services 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.

Classroom Support

Service of Information Technology Services
Howell Hall, Room B3 (507-457-5240)
www.winona.edu/classroomsupport/

Classroom Support provides real-time technology support for all WSU educational spaces. Additional services include classroom technology design and installation, equipment check-out, video production, and video conferencing. Supplementary support is provided for campus events, satellite downlinks, video streaming, and scantrons.

Counseling Center

Gildemeister Hall, Room 132 (507-457-5330)

The Counseling Center provides short-term counseling to currently enrolled students who are experiencing difficulty in their personal lives. Common concerns students may bring to the Center are anxiety, depression, adjustment issues, family problems, relationship concerns, academic concerns, self-esteem, grief, alcohol use/abuse, and so on. Counselors will also assist with off-campus referrals/resources if appropriate for the student's care. In addition to personal counseling, the Counseling Center also offers career counseling, including the use of testing instruments such as the STRONG and DISCOVER programs. Outreach educational presentations are offered to both the WSU community and the community at large.

Three licensed, full-time counselors, one licensed social worker, a full-time office manager, and graduate student trainees staff the Center. During the academic year, students should stop by the Counseling Center between 8:00 A.M. and 4:30 P.M. to request an appointment.

Services are provided at no cost to the student. The information exchanged during the counseling process is confidential; students are advised of their client rights and the exceptions to confidentiality. Information will be released with the student's written consent when appropriate.

Cultural Diversity

Kryzsko Commons, Room 122 (507-457-5263)

It is the goal of Winona State University to create a learning community where all of its members regardless of cultural background feel safe and respected and where opportunities are provided to explore, understand, and appreciate one another's cultural experiences and heritage. Going beyond this, it is the goal of this institution to develop a learning community where diversity in its broadest terms—including race, ethnicity, national origin, gender, ability/disability, age, religion, economic, language, gender identity, and sexual identity—is valued, affirmed, and celebrated as an important first step toward embracing world differences in order to make the world a better place in which to live and work.

Winona State University is committed to cultural diversity and supports the following initiatives as part of its mission:

- To promote understanding of the cultural and ethnic heritages of African Americans, Asian Americans, Latino/Hispanic Americans, and Native Americans as well as other diverse cultures at WSU.
- To increase enrollment, retention, and success of historically underrepresented and under-served students (i.e., racially diverse students, first-generation college students, students for whom English is a second language, and low-income students).
- To increase recruitment and retention of culturally diverse faculty and staff.
- To enhance curriculum development through the inclusion of multicultural perspectives.
- To provide resources for multicultural campus and community initiatives.
- To promote the understanding and appreciation of issues related to race, ethnicity, national origin, gender, age, beliefs, ability levels, economic status, sexual identity, gender identity, and religion.
- To create a safe, welcoming, and nurturing environment that encourages all campus members—student and employee alike—to grow and achieve their goals.

In the spirit of broadening horizons and enabling campus and community members to appreciate different cultures and ethnicities, the ultimate aim of Winona State University's commitment to cultural diversity is to empower people of all backgrounds for successful living in a global society.

Disability Resource Center

Howell Hall, Room 136 (507-457-2391)

Fax: 507-457-2957; e-mail: drc@winona.edu

www.winona.edu/disabilityservices

In accordance with Section 504 of the federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Winona State University shall make reasonable adjustments in its policies, practices, services, and facilities to ensure equal opportunity for qualified persons with disabilities to participate in all educational programs and activities. A person with a disability is defined as:

- A person with a physical or mental impairment that substantially limits one or more major life activities. This includes care for oneself, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working.
- A person who has a disability, has a record of the disability, or is regarded as having the disability.

A student requiring special accommodation or auxiliary aids must apply for such assistance through the Disability Resource Center. Proof of disability from a competent authority will be required, as well as information regarding specific limitations for which accommodation is requested. Reasonable accommodations are the services that are necessary to provide equal access in an academic setting. Examples of possible accommodations may include testing accommodations, note taking assistance, interpreter services, tape-recorded lectures, assistive technology, writing/scribing assistance, lab assistance, adaptive equipment, priority registration, or taped textbooks.

An eligible student is one who has a disability and who meets the essential academic eligibility requirements for the WSU program or activity in which the student seeks to participate. In order to receive academic accommodations, the student must identify/self-disclose his/her educational needs.

- Approval of accommodations is based on adequate supporting documentation of a disability.
- Qualified disabled students must meet the same academic requirements as all students on campus.
- An accommodation is not reasonable if it compromises the essential elements of a course or lowers academic standard.
- A request may be denied if it fundamentally alters a course or program or is an undue hardship for WSU.
- Some of the auxiliary aids may be provided by another agency such as Recordings for the Blind and Dyslexic and the National Library Service.
- Certain accommodations, such as course modifications or substitutions, may take up to one semester to be provided.
- The ADA Coordinator will respond to concerns about the inequality of access or opportunity.

More information is available in the Student or Faculty Disability Handbook, which is available in the Disability Resource Center or online at www.winona.edu/disabilityservices/handbooks/student/shandbook.html.

Health Insurance

All full-time students may purchase health insurance through the MnSCU Injury and Sickness Insurance Plan. For detailed information, contact one of the following offices: International Services (Kryzsko Commons, Room 130), Student Health Service (Maxwell Hall), or the Counseling Center (Gildemeister Hall, Room 132). Information is also available at www.student-resources.net.

International Services:

Admissions/Recruitment and Cultural Outreach

Kryzsko Commons (Student Union), Room 126

(507-457-5303)

intrec@winona.edu

The Office of International Services is dedicated to increasing the number of international students on campus and providing services when they arrive and during their enrollment at the University. All inquiries about admission should be directed to the Office of International Services. See page 6 for further information about admission requirements. Universities located in other countries may also contact the Office of International Services to inquire about articulation agreements, linkages, and other forms of collaboration concerning the admission of international students.

The Office of International Services also provides specialized services for international students to enhance their success at the University. Such services include helping international students understand immigration rules and regulations; scholarship/financial information and assistance; orientation programs, information about insurance requirements, employment regulations and opportunities for F-1 visa holders; English language transition courses; personal problem solving and adjustment to life in the United States; and opportunities to participate in the extra-curricular life of the University. The Office of International Services also helps students connect with Americans through the Friendship Family program and the Global Connections program for international students living in the residence halls.

The Cultural Outreach program is a scholarship program for international students as well as an international education program designed for the campus and community to enhance Americans' understanding of other cultures. Throughout the year, the outreach program provides learning activities and programs that bring international students and citizens of Minnesota together to learn from each other. The outreach program utilizes international students to teach and provide experiential learning for the University's service region.

Maxwell Children's Center

Maxwell Hall, Room 102 (507-457-2300)

The Maxwell Children's Center, which is part of the College of Education, provides:

- Full-service, affordable, educational, and inclusive child care for all children.
- An interactive classroom setting for University students seeking a variety of Minnesota teaching licensures. Students participate in practicum/field placements, student teaching, and employment opportunities at the Center.
- Model program for regional early childhood professionals.

The Center serves children aged six weeks to 12 years and is open Monday through Friday from 7:00 A.M. to 5:30 P.M., twelve months each year, excluding University holidays and part of each semester break. Children may be enrolled as either part-time or full-time participants. Additionally, children aged 3-5 may be enrolled in a morning preschool program. Children aged 6-11 may participate in after-school or full-day summer enrichment programs.

WSU students who have children are strongly urged to contact the Children's Center as soon as they are admitted to WSU due to high demand for the Center's services.

Parking Services

Sheehan Residence Hall, (507-457-5062)

<http://www.winona.edu/parking>

E-mail: parking@winona.edu

Parking permits are required in all University parking lots on the Winona campuses. The only exceptions are the metered spaces on main campus in the "Silver" Kryzsko lot and the metered spaces on Johnson Street. The requirement for permits includes all students who have state-issued handicapped permits. Information about how to obtain a visitor permit is available from Parking Services. For the Winona campuses, the application process for parking permits starts April 1 to be effective the next school year. If applications exceed the number of available parking spaces, a drawing is held. If space becomes available after the drawing,

permits are sold on a first-come, first-serve basis. If no permits are available, applicants' names are put on a waiting list. For more details and information about the cost of parking permits on the Winona campuses, contact Parking Services.

Security Services

Sheehan Residence Hall, Main Floor (507-457-5555)
www.winona.edu/security

WSU Security is responsible for the physical security of all residence halls and academic buildings throughout the University. Campus security employs three full-time security personnel with over 75 years of combined law enforcement experience. In addition, the security force is supplemented with approximately 50 students who perform security-related duties on campus. The Winona Police Department also patrols and responds to calls on campus 24 hours a day throughout the year.

Security works to ensure the safety of students, staff, faculty, and University property. Crime prevention, proactive safety programs, and training are integral parts of Winona State University Security; our goal is to maintain a safe environment for everyone. See page 35 for information about crime awareness and the Campus Security Report.

Student Answer Center (SAC)

Kryzsko Commons, Lower Level (507-457-2456)
www.winona.edu/sac
E-mail: SAC@winona.edu

When students are not sure where to go for answers to their questions, they can start with Student Answer Center (SAC). SAC is a one-stop resource; the Center is prepared to handle a variety of requests from students and guests, such as printing students' WSU invoices and DARS reports, providing advisor information, completing change of address forms and declaration of major forms. SAC is the first stop for students interested in the Study Abroad program.

During the academic year, SAC is open Monday through Thursday from 8:00 A.M. to 6:00 P.M. and Friday from 8:00 A.M. to 4:30 P.M. (During the summer and breaks, SAC is open Monday through Friday from 8:00 A.M. to 4:00 P.M.) Students may also call SAC for an immediate response or, after hours, leave a voice mail for a response the next business day. If students prefer, they may submit their questions via e-mail, or they may access the list of frequently asked questions on the SAC website.

Student Health Service

West Wing of Maxwell Hall (507-457-5160)
www.winona.edu/healthservices

The Health Service facility is staffed by physicians, nurse practitioners, registered nurses, a medical technologist, a health educator, and a medical records clerk. Services include:

- Medical examinations and consultations for illness, injury, and other medical concerns
- Laboratory services
- Mantoux tests and other immunizations
- Physical exams for sports, employment, or travel
- Allergy injections (students must supply their own serum)
- Contraceptive counseling, exams, and prescriptions
- Health education materials including pamphlets, videos and consultation, which enable students to develop a lifestyle that will reduce their risk of disease and injury.
- Smoking cessation program
- Alcohol education class
- Alcohol and other drug abuse screenings and assessments
- Campus-wide and community health promotion, prevention, and awareness programs
- A Peer Health Educator program

The student health fee pays for most of the services provided during regular office hours. However, there is a \$7.00 office visit fee to see the physician or nurse practitioner. In addition, there are charges for medications, laboratory tests, and some medical procedures and supplies. Information about costs and charges is available on the health service website. Emergency care is available evenings and weekends at Community Memorial Hospital (855 Mankato Avenue, Winona).

Pre-Enrollment Medical Examination

Each student must complete a Report of Medical History form 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 that a physical exam be done.

Notes:

1. For students who are planning to participate in athletics, a physical exam is mandatory and must be completed after July 1. A special form

is available from the Athletic Department.

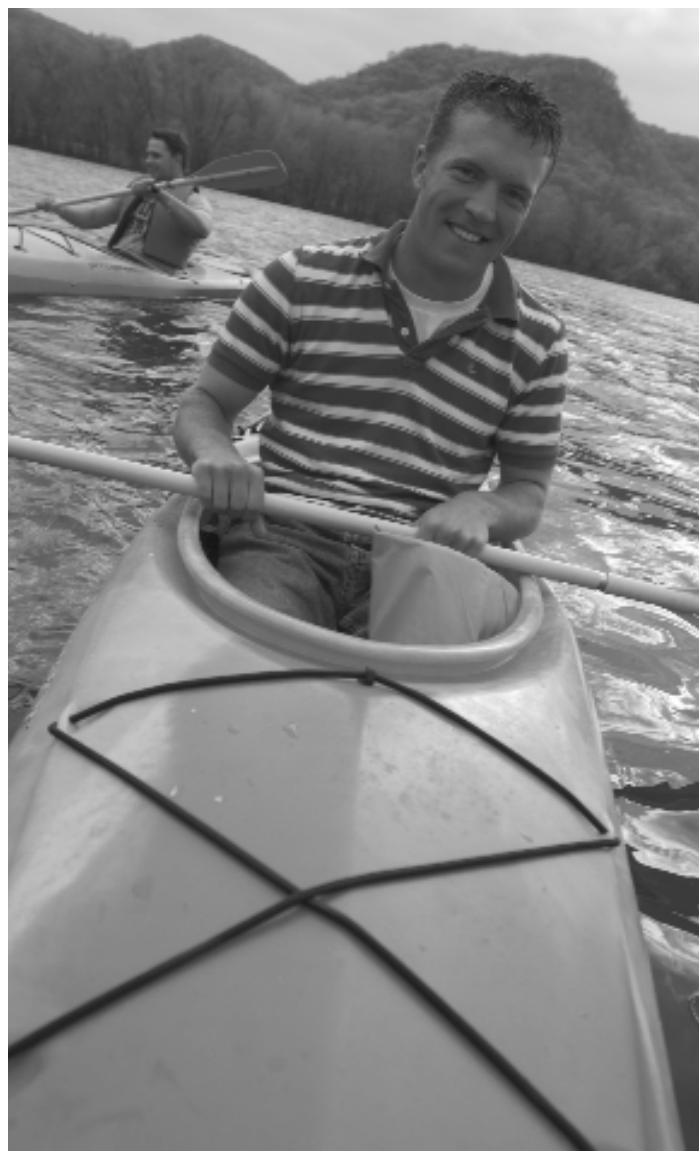
2. Health records for transfer students are not sent automatically with transcripts from other colleges; transfer students must specifically request the records. Students must complete the Report of Medical History for the WSU Student Health Service.

Proof of Immunization

Minnesota Law (M.S. 135A.14) requires that all students 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 that all students, in order to remain enrolled, must submit their immunization information to the Student Health Service within 45 days of the beginning of the semester. The immunization form is on the back of the Report of Medical History form. Forms are available in the Student Health Service office.

STUDENT UNION/ACTIVITIES

The hub of student activities is the Student Center in Kryzsko Commons. This facility encompasses everything from places to eat, study, meet, and just hang out. The Jack Kane Dining Center is located on the upper level. Conference rooms and/or private dining are available to students for meetings and informal gatherings. The Student Activity Center is located on the main level and includes student lounges, a conference room, club activity room, Student Senate offices, Greek organization offices, stage and dance floor, and numerous PC hook-ups. The Smaug dining center is also on the main level. This center includes dining choices such as Tuscan Oven, Sub Generation, The Grille; these venues serve everything from burgers and wraps to Mexican to soup or sandwiches. The Wharf, a convenience store, is located adjacent to The Smaug, and the WSU Bookstore is located just around the corner.



The Student Union/Activities Director and Assistant Activities Director advise and 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.

More than 190 student clubs and organizations are represented; they encompass a wide variety of interests. These clubs showcase academic, athletic, cultural, political, religious, and social interests. Each organization provides service activities to benefit its members, the campus, and the community. The Alliance of Student Organizations Committee (ASO) is the central organization to which all University clubs belong.

Student Clubs and Organizations

ACADEMIC CLUBS

Accounting Association
 American Advertising Federation
 American Chemical Society
 American Marketing Association
 American Sign Language
 Art Club
 Association of Student Paralegals
 Athletic Training Club
 Biology Club
 Chemistry Club
 Communication Studies Club
 Computer Science Club
 Criminal Justice Club
 Education Minnesota Student Program
 Environmental Club
 Exercise Science Club
 Financial Management Association
 Geology Club
 Grub Street - English Club
 Health Organization for Promotion & Education
 Health and Wellness Association
 History Association
 International Association of Business Communicators
 Journalism/Photojournalism Club
 Learning Disabilities Association - Council for Exceptional Children
 Management Information Systems Association
 Macintosh Users Group
 Mass Communication Club
 Mathematics/Statistics Club
 Minnesota Student Nurses Association
 Music Business Club
 Music Educators National Conference
 Nursing Club
 Peace Office Student Training Association
 Performance Engineering Club
 Physics Club
 Political Science Association
 Pre-Pharmacy Club
 Professional Educators of Physical Activity
 Psi Chi Honor Society - Psychology Club
 Science Education Club
 SHAPE - Spreading Health Awareness/Peer Education
 Society for the Advancement of Material Process Engineering
 Society for Collegiate Journalists
 Society for Human Resources Management
 Society of Plastic Engineers
 Student Association of Social Workers
 Student International Reading Club
 Student MN Education Association
 Sociology Club
 Synergy - Professional Business Association
 Therapeutic Recreation - Recreation Club

ATHLETIC CLUBS

Bowling Team
 Bocce Ball Club
 Cheer Team
 Dance Team
 Fencing Club
 Karate Club
 Outdoor Club
 Rugby Team (men)
 Rugby Team (women)
 Running Club

Rowing Club
 Snowboard Club
 Soccer/Futbol Club
 Tri-Club (Triathlons)
 Ultimate Frisbee-The Experience (men)
 Ultimate Frisbee-Bad Monaz (women)
 Veterans Club
 Volleyball Club (men)
 Water Ski & Wakeboard Team

ATHLETIC NCAA INTERCOLLEGIATE TEAMS

Men	Women
Baseball	Cross Country
Basketball	Golf
Cross Country	Gymnastics
Football	Soccer
Golf	Softball
Tennis	Tennis
	Track & Field
	Volleyball

CAMPUS ORGANIZATIONS

Alliance of Student Organizations (ASO)
 Ambassadors
 Grievance Board
 Homecoming Committee
 Inter-Residence Hall Council (IRHC)
 Judicial Board
 National Residence Hall Honorary
 Student Senate
 Student Support Organization for MSUSA
 University Programming Activities Committee (UPAC)

COMMUNICATIONS

KQAL FM Radio - College radio station
Satori- Library publication
Bravura - Lab newspaper
Winonan - Student newspaper
 National Broadcast Society

CULTURAL CLUBS

African Club
 Asian American Club
 Association for Disability Awareness
 Black Cultural Awareness Association
 GLBTA - Gay, Lesbian, Bi, Trans, Allies Partnership
 Hispanic Association of Students
 Hmong American Student Association
 Intercambios
 International Club
 Japan Club
 Malaysian-American Chapter
 Native American Heritage and Awareness
 Soka Gaikki International
 SOUL
 United Nations Club

FINE ARTS CLUBS

Brass Ensemble
 Chamber Choir
 Choral Union
 Concert Band
 Concert Choir
 Dance Society
 Forensics
 Jazz Club
 Opera Workshop
 Percussion Ensemble
 Symphonic Wing Ensemble
 Symphony Orchestra
 University String Quartet
 Wenonah Players - Theatre
 Woodwind Ensemble
 Woodwind Quintet

GREEK LIFE

Delta Phi Epsilon Sorority
 Phi Theta Chi Sorority
 Pi Lambda Phi Fraternity
 Sigma Sigma Sigma Sorority
 Tau Kappa Epsilon Fraternity
 Inter-Greek Council
 Panhellenic Association

HONORARY SOCIETIES

Alpha Delta Mu - Social Work
 Alpha Epsilon Rho -Broadcasting

Alpha Lambda Delta - Freshman/Sophomore Honors
 Alpha Omega Honore
 Beta Beta Beta - Tri Beta Biological Society
 Delta Sigma Pi - Business
 Golden Key International - Honors
 Kappa Delta Pi
 Lambda Pi Eta
 National Society of Collegiate Scholars
 Sigma Theta Tau - Nursing

INTRAMURALS

Aerobics	Badminton
Basketball	Flag Football
Floor Hockey	Racquetball
Soccer	Softball
Tennis	Volleyball
Water Aerobics	Weight Training

RELIGIOUS CLUBS

Christians in Action - Chi Alpha
 Catholic Newman Center
 Fellowship of Christian Athletes
 Intersity Christian Fellowship
 Latter Day Saints Student Association
 Lutheran Campus Center
 Lutheran Student Fellowship
 Muslim Student Association
 True North WELS Campus Ministry
 United Campus Ministries

SPECIAL INTEREST CLUBS

Amnesty International
 Anime Club
 Card Club
 Circle K - College Kiwanis
 CLICK
 Colleges Against Cancer
 FORGE - Fighting for Our Rights & Gender Equality
 Game Development Club
 Habitat for Humanity
 Rod and Gun Club
 RPSIG
 Strategy Gaming Club
 Up 'Til Dawn
 Warriors for Life
 WSU College Democrats
 WSU College Libertarians
 WSU College Republicans
 WSU Greens
 WSU NORML
 Video Game Club

POLICIES AND REGULATIONS

Affirmative Action Office

Somsen Hall, Room 202B
 (507-457-5008 or 507-457-5013)

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 Affirmative Action Officer also investigates concerns regarding sexual harassment at WSU. These confidential services are available by appointment or on a walk-in basis. Call the Affirmative Action office for more information or to make an appointment.

Crime Awareness and Campus Security Act

WSU Security Services
 Sheehan Hall, (507-457-5555)

www.winona.edu/security/crime_report_wsu.html

Winona State University recognizes that providing the safest environment possible is an integral element of the University's educational mission, and the University publishes an annual Campus Security Report that is available to everyone. This report provides statements of policy for a broad range of safety, community relations, environmental safety, enforcement authority, and response issues. It also includes a 3-year statistical review of designated crimes on campus. A printed copy of this report may be obtained, at no charge, from the Director of Security, Winona State University (Sheehan Hall), Winona, MN 55987 or by calling 507-457-5158. In addition, the Campus Security Report can be accessed at the following websites:

- **Winona Campus:**
<http://www.winona.edu/security/wsusecurityrep.pdf>
 - **Rochester Campus:**
<http://www.winona.edu/security/rochestercampussecurityrep.pdf>
- Winona State University encourages all members of the University community to be fully aware of the campus safety issues and to take action to prevent and report illegal and inappropriate activities. Personal awareness and applying personal safety practices are the foundation of a safe community. The Campus Security Report is designed to inform and educate you on the measures that can be taken and the services available to you to assist in maintaining a safe and secure learning environment. All members of the University community are encouraged to contact the Director of Security at dwalski@winona.edu or by phone (507-457-5158) with any concerns and questions regarding campus security and related issues.

Student Conduct

Office of Student Affairs, Conduct Officer
 Kryzsko Commons, Room 130 (507-457-5300)

The WSU Student Conduct Policy and related policies, which express expectations concerning behavior and state the rights of students, are available online at www.winona.edu/studentaffairs or www.winona.edu/handbook (online Student Handbook) or in the Office of Student Affairs. Students are responsible for being aware of and complying with all WSU student policies and regulations.

At the discretion of the University, students may be held accountable for behavior—both on and off campus—that constitutes a violation of local, state, and federal laws. Note that the WSU Student Conduct Policy does not replace or reduce the requirements of civil or criminal laws. If assistance with a complaint or additional information is needed, contact the Student Conduct Officer through the Office of Student Affairs.

WSU-ROCHESTER CENTER

Office of the Director
U.S. Highway 14 and 30th Avenue SE
Rochester, MN
SS131 UCR (507-285-7100)

PROGRAM OVERVIEW

Since 1917, Winona State University has served students in Rochester, Minnesota and the surrounding area. In 1993, Winona State University, along with the University of Minnesota and Rochester Community and Technical College, collaborated to create the University Center at Rochester (UCR). The Greater Rochester area, which UCR serves, has a population of over 100,000 people; area residents have a high level of education attainment, and they are highly receptive to the lifelong learning opportunities offered by WSU-Rochester and the other institutions.

WSU-Rochester Center supports the University's "commitment to community." This commitment is evidenced by the Rochester Center's relationships with the IBM Corporation, Mayo Clinic, the Rochester School District, and many organizations and businesses, where students, faculty, and staff not only engage in experiential learning activities, but also provide hours of community service.

For many years, WSU-Rochester Center has served the region with distinction. The numbers tell the story: Over 2,000 students are served each year; over 5,000 bachelor's and master's degree candidates have

graduated from programs offered at the WSU-Rochester Center campus. Approximately 40 resident faculty serve WSU-Rochester, with an additional 20 faculty from the Winona campus dedicated to the Rochester Center each academic term.

WSU-Rochester Center facilitates student learning by offering both day and evening classes and, because it is located in the city of Rochester, UCR has unique opportunities to collaborate with the IBM Corporation, Mayo Clinic, and the Rochester School District to offer specialized classes in computer science, the health professions, and education.

DEGREES AND PROGRAMS

WSU-Rochester cooperates with Rochester Community and Technical College (RCTC) to offer educational programs to the area. Through the 2+2 Program, students can complete 12 baccalaureate degree programs by transferring lower-division credits from RCTC and completing upper-level courses at WSU-Rochester Center. At the WSU-Rochester campus, students can also complete numerous undergraduate minors and five graduate degrees within 16 different graduate programs. WSU also cooperates with Mayo Clinic in offering a master's degree in nurse anesthesia. Partnerships also exist among the Nursing Department, Mayo Clinic, and the University of Minnesota.

See page 37 for detailed descriptions of the undergraduate programs; for more information about the graduate programs, see the WSU Graduate Catalog.

UNDERGRADUATE PROGRAMS

- 2+2 Accounting
- 2+2 Business Administration
- 2+2 Computer Information Systems
- 2+2 Computer Science
- 2+2 Computer Science - Bioinformatics
- 2+2 Elementary Education: K-6 with Middle Level
- 2+2 Communication Arts and Literature 5-8 Specialty
- 2+2 Elementary Education: K-6 with Middle Level
- 2+2 Social Studies 5-8 Specialty
- 2+2 Nursing: Generic Option
- 2+2 Psychology, Option A
- 2+2 Social Work
- Nursing: RN-to-BS Option
- Professional Studies (General Option) (See page 182 for program description.)



GRADUATE PROGRAMS

Specialist Degree in Educational Leadership (Ed.S.)

Master of Science in Counselor Education:

- Community Counseling
- Professional Development
- School Counseling

Master of Science in Education:

- Graduate Induction Program
- Master Teacher Learning Communities
- Traditional Master of Education Program

Master of Science in Educational Leadership:

- K-12 Principalship
- Teacher Leadership (non-licensure program)
- General School Leadership (non-licensure program)

Master of Science in Nursing:

- 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

Post-nursing Master's certificates available in Adult/Family Nurse Practitioner, Nurse Educator, and Clinical Nurse Specialist focus areas

Post-Baccalaureate Secondary Licensure Program/Teacher Licensure Collaborative (TLC)

Non-Credit Programs

WSU-Rochester cooperates with community and professional groups, and WSU's Outreach and Continuing Education Department to provide non-credit continuing education programs for educators, business and industry, agencies, and government.

Adult Entry Program

This program is designed for mature students who have never attended college or who are returning to college. Counselors are available in Rochester on a regular basis to assist adult students seeking a college education. Under this program, college credit may be awarded for life/work experience. (See "Outreach and Continuing Education Department" on page 29 for more information.)

REGISTRATION

Students can enroll in WSU-Rochester classes without being formally admitted to the University; however, some programs do require official admittance. Graduate students not in a degree program need to enroll as "Graduate Special" students and provide proof of an undergraduate degree. For general information about undergraduate admissions, see page 5. For more general information about registration and academic records, see page 15.

STUDENT SERVICES

Campus Visits

Students are encouraged to visit the WSU-Rochester campus any time. For more information about programs and services, call 800-366-5418 or 507-285-7100.

Career Services

Rochester Campus: SS 125 (507-280-5079)
 Winona Campus: 110 Gildemeister Hall,
 Room 110 (507-457-5340)
www.winona.edu/career

Career Services assists first- and second-year students seeking career direction; juniors and seniors seeking internships; and seniors, graduate students and alumni seeking full-time employment. Graduate students are encouraged to register with Career Services to take advantage of the broad range of services offered. Individual advising appointments may be scheduled to discuss career direction and questions related to the job search, to critique resumes and cover letters, and to provide tips on interviewing. A career counselor is available throughout the academic year to meet with students one-on-one or in small groups. Appointments may also be scheduled for mock interviews on our interview kiosk.

Career Services provides opportunities for students to interact with employers through career fairs, job fairs, and other special events. Employers have access to candidate resumes once they are uploaded into their Career Services online account. Students can update their resumes online and access job openings 24/7 on the Career Services website. Employment information and graduate follow-up results are also available for review online, in the Career Services office, and the Goddard Library.

Computer Facilities

The Rochester Center is equipped with state-of-the-art technology for interactive television (ITV) and computer systems that link UCR students with the Winona campuses and the world. The computer facilities consist of multiple smart rooms, one open computer lab, and a laptop rental center. All labs allow students access to mainframes on the Winona campus.

Counseling

Academic counseling services are available through WSU-Rochester Center (507-285-7100). Staff members are professional counselors with extensive academic experience in counseling.

Financial Aid

Students should request an Application for Financial Aid when applying for admission. Counseling is available for students concerning long- and short-term plans for financing their education. Preliminary information is available at WSU-Rochester. Representatives from the WSU Financial Aid Office are available on the WSU-Rochester campus each week.

Housing and Dining

The University Center at Rochester (UCR) is considered a commuter campus. However, a variety of housing options are available in the Rochester area, including furnished and unfurnished apartments, efficiencies, single room rentals, and houses. RCTC has a listing of housing information available for students. In addition, Professional Property Management, a local independent agency, also provides information on housing for UCR students. Students may obtain housing information from both these sources at the UCR Information Desk.

WSU-Rochester Center's cafeteria is located on the third floor of the College Center. In addition to the cafeteria, the Café Express offers light meals and snacks during the evening hours. Students may also use the microwaves located in the cafeteria as well as food and beverage vending machines located throughout the campus complex.

International Students

Staff from the Office of International Services make frequent visits to the WSU-Rochester campus. Students may schedule appointments by calling Student Services at 507-285-7100.

Joint WSU-RCTC Services

Other areas of student support are coordinated jointly by WSU-Rochester staff members; this includes child care and services to students with disabilities.



Library

WSU-Rochester students have access to the UCR Goddard Library in Rochester and the Darrell W. Krueger Library on the Winona campus. WSU-Rochester's library holdings are integrated into UCR's Goddard Library holdings of over 57,000 volumes. This arrangement provides students with an extensive resource of reference and research material on the WSU-Rochester campus. In addition, students may request overnight courier service to the Winona campus library for articles and books; they may also do online searches using MnPALS and a number of other systems.

Parking Services

Students will be charged a \$3.25 parking fee per credit with a maximum parking fee of \$48.75 per semester (subject to change). This fee will automatically be added to a student's semester billing for tuition and fees. No parking permit will be issued; student lots are designated.

Student Disclosure Policy

At the UCR campus, Winona State University shares administrative tasks and other functions with RCTC and the University of Minnesota. Educational records of students taking classes at the UCR campus may be made available to

employees of these two institutions while the student is attending the UCR campus if access is necessary for the employee to provide services to the student.

ACADEMIC PROGRAMS: MAJORS AND 2 + 2 PROGRAMS

NURSING

Stark Hall, Room 303 (507-457-5120)
www.winona.edu/nursing (e-mail: nursing@winona.edu)
 Jo Stejskal (Chairperson)

The RN-to-BS Option is for those who already hold a registered nurse (RN) license and are now seeking a BS degree. This option includes sequenced upper-division nursing courses that can be completed in one to two years after all other degree requirements are completed. The RN-to-BS Option can be completed on a full-time or part-time basis at the Rochester campus and through outreach. The Department of Nursing also offers an adapted RN-to-MS Professional Pathway for registered nurses whose goal is to earn a master's degree in nursing.

B.S. MAJOR - NURSING: RN-TO-BS OPTION (NURN)

54 S.H. (Required courses must be taken for a letter grade.)

Note: Includes 24 S.H. of nursing in transfer or exam.

REQUIRED COURSES (NURS)

- ☞ 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)

Five semester hours of upper-division electives (300- and 400-level courses) are required for the nursing major; of these, 2 semester hours must be from nursing electives. Electives may be taken as letter grade or pass/no credit if the courses are offered on a P/NC basis. See page 156 for more information on the RN-to-BS Option.

2 + 2 ACCOUNTING

Rochester Community and Technical College (RCTC) & Winona State University (WSU)

First two years:

Associate in Science (A.S.) degree in Liberal Arts & Studies at RCTC

Second two years:

Bachelor of Science (B.S.) degree in Accounting at WSU

I. GENERAL EDUCATION REQUIREMENTS.....40 Credits

Courses must be selected from those approved to satisfy the competencies of Minnesota Transfer Curriculum (MNTC) Goals 1, 3, 4, 5, 6. Consult the RCTC catalog listings to determine the specific courses that apply to areas below.

Goal 1: Written and Oral Communication.....11 Credits

ENGL 1117, 1118 Reading & Writing Critically I & II OR 8 Credits
 ENGL 1917, 1918 Reading & Writing Critically I & II: Honors 8 Credits
 SPCH 1114 Fundamentals of Speech 3 Credits

Goal 2: Critical Thinking - Met by any Course in MNTC 1-10 Goals

Goal 3: Natural Science.....6 Credits

Choose two courses with labs from two different areas: biology, chemistry, earth science, or physics.

Goal 4: Mathematics.....3-5 Credits‡

MATH 1119 Applied Calculus for Business Majors OR 3 Credits
 MATH 1127 Calculus I 5 Credits

Goal 5: History and Social Sciences.....11 Credits

ECON 2214 Principles of Microeconomics 4 Credits
 ECON 2215 Principles of Macroeconomics 4 Credits
 3 credits from anthropology, geography, history, political science, psychology, or sociology.

Goal 6: Humanities and Fine Arts9 Credits

Choose from two different areas: art, English literature, foreign language, humanities, journalism, music, philosophy, speech/theatre.

II. HEALTH AND HUMAN PERFORMANCE2 Credits

Any combination of health and/or physical education activity courses (1100-1199).

III. BUSINESS CORE REQUIREMENTS21 Credits

ACCT 2217 Financial Accounting 4 Credits
 ACCT 2218 Managerial Accounting 4 Credits
 BUS 2212 Business & Economic Statistics 4 Credits
 BUS 2227 Business Law I 3 Credits
 ACCT 2234 Computerized Accounting 3 Credits
 BUS 2201 Principles of Marketing 3 Credits

Total Credits.....64 Credits

‡If a student takes only 3 credits of mathematics, 1 additional credit will be required to complete the A.S. degree.

Note: The award of the A.S. degree waives WSU University Studies requirements except for the Flag requirements (page 19).

MAJOR REQUIREMENTS AT WSU:

Accounting.....21 Credits

ACCT 311 Intermediate Accounting I 3 Credits
 ACCT 312 Intermediate Accounting II 3 Credits
 ACCT 330 Accounting Information Systems 3 Credits
 ACCT 361 Intermediate Managerial/Cost Accounting 3 Credits
 ACCT 413 Advanced Financial Accounting 3 Credits
 ACCT 421 Introduction to Taxation 3 Credits
 ✎ ACCT 471 Auditing I 3 Credits

Business Administration18 Credits

BUSA 311 Business Law II 3 Credits
 BUSA 320 Intermediate Business Statistics 3 Credits
 ✎ MGMT 325 Organizational Dynamics 3 Credits
 ✎ MGMT 495 Strategic Management 3 Credits
 MIS 362 Management Information Systems 3 Credits
 OM 334 Production and Operation Management 3 Credits

Economics/Finance3 Credits

FIN 360 Corporate Finance 3 Credits

Major Electives9 Credits

Any 300-400 ECON elective 3 Credits
 300-400 ACCT electives 6 Credits

Open Electives.....13 Credits

Note: Sixty-four non-business credits are required for the major. Of the math, statistics, and economics courses required for the major, 6 credits of math and statistics and 9 credits of economics can be counted toward the requirement for 64 non-business credits.

Total Credits64 Credits
Required for a B.S. Degree in Accounting128 Credits

2 + 2 BUSINESS ADMINISTRATION

Rochester Community and Technical College (RCTC) & Winona State University (WSU)

First two years:

Associate in Science (A.S.) degree in Business Administration at RCTC

Second two years:

Bachelor of Science (B.S.) degree in Business Administration at WSU

I. GENERAL EDUCATION REQUIREMENTS.....40 Credits

Courses must be selected from those approved to satisfy the competencies of Minnesota Transfer Curriculum (MNTC) Goals 1, 3, 4, 5, 6. Consult the RCTC catalog listings to determine the specific courses that apply to the areas below.

Goal 1: Written and Oral Communication11 Credits

ENGL 1117, 1118 Reading & Writing Critically I & II OR 8 Credits
 ENGL 1917, 1918 Reading & Writing Critically I & II: Honors 8 Credits
 SPCH 1114 Fundamentals of Speech 3 Credits

Goal 2: Critical Thinking - Met by Any Course in MNTC 1-10 Goals

Goal 3: Natural Science.....6 Credits

Choose two courses with labs from two different areas: biology, chemistry, earth science, or physics.

Goal 4: Mathematics3-7 Credits

MATH 1113 Finite Math with College Algebra OR 3 Credits
 MATH 1115 AND 1117 College Algebra (3 credits)
 and Pre-Calculus (4 credits) OR

MATH 1119 Applied Calculus for Business and Economics 3 Credits

Goal 5: History and Social Sciences11 Credits

ECON 2214 Principles of Microeconomics 4 Credits
 ECON 2215 Principles of Macroeconomics 4 Credits
 3 credits from anthropology, geography, history, political science, psychology or sociology.

Goal 6: Humanities and Fine Arts.....9 Credits

Choose from two different areas: art, English literature, foreign language, humanities, journalism, music, philosophy, speech/theatre.

II. HEALTH AND HUMAN PERFORMANCE.....2 Credits

Any combination of health and/or physical education activity courses (1100-1199)

III. BUSINESS CORE REQUIREMENTS21 Credits

ACCT 2217 Financial Accounting 4 Credits
 ACCT 2218 Managerial Accounting 4 Credits
 BUS 2212 Business & Economic Statistics 4 Credits
 BUS 2227 Business Law I 3 Credits
 BTEC 2350 Microcomputer Business Applications 3 Credits
 BUS 2201 Principles of Marketing 3 Credits

IV. ELECTIVE CREDIT.....1 Credit

Total Credits64 Credits

Note: The award of the A.S. degree waives WSU University Studies requirements except for the Flag requirements (page 19).

MAJOR REQUIREMENTS AT WSU:

Business Administration.....18 Credits

BUSA 311 Business Law II 3 Credits
 BUSA 320 Intermediate Business Statistics 3 Credits
 MGMT 315 Principles of Management 3 Credits
 ✎ MGMT 317 Management of Human Resources 3 Credits
 ✎ MGMT 325 Organizational Dynamics 3 Credits
 ✎ MGMT 495 Strategic Management 3 Credits

Management Information Systems and

Operations Management6 Credits

MIS 362 Management Information Systems 3 Credits
 OM 334 Production and Operation Management 3 Credits

Economics and Finance3 Credits

FIN 360 Corporate Finance 3 Credits

Major Electives-Must be 300+ level electives12 Credits

Courses from business administration (BUSA)

or management (MGMT)	6 Credits
Courses from College of Business	6 Credits

Open Electives 22 Credits
Note: Sixty-four non-business credits are required for the major. Of the math, statistics, and economics courses required for the major, 6 credits of math and statistics and 9 credits of economics can be counted toward the requirement for 64 non-business credits.

Total Credits64 Credits
Required for a B.S. Degree in Business128 Credits

2 + 2 COMPUTER INFORMATION SYSTEMS

Rochester Community and Technical College (RCTC) & Winona State University (WSU)

First two years:

Associate in Science (A.S.) degree in Liberal Arts at RCTC

Second two years:

Bachelor of Science (B.S.) degree in Applied Computer Science with Computer Information Systems Track at WSU

I. GENERAL EDUCATION REQUIREMENTS.....43 Credits

Courses must be selected from those approved to satisfy the competencies of Minnesota Transfer Curriculum (MNTC) Goals 1, 3, 4, 5, 6. Consult the RCTC catalog listings to determine the specific courses that apply to the areas below.

Goal 1: Written and Oral Communication.....11 Credits

ENGL 1117, 1118 Reading & Writing Critically I & II OR	8 Credits
ENGL 1917, 1918 Reading & Writing Critically I & II: Honors	8 Credits
SPCH 1114 Fundamentals of Speech	3 Credits

Goal 2: Critical Thinking - Met by any Course in MNTC Goals 1-10

Goal 3: Natural Science.....6 Credits

Choose two courses with labs from two different areas in biology, chemistry, earth science, or physics.

Goal 4: Mathematics11 Credits

MATH 2218 Discrete Mathematics	4 Credits
MATH 1119 Applied Calculus for Business & Economics	3 Credits
MATH 2208 Fundamentals of Statistics	4 Credits

Goal 5: History and Social Sciences6 Credits

ECON 2214 Principles of Microeconomics OR	4 Credits
ECON 2215 Principles of Macroeconomics	4 Credits

Choose from the following disciplines with a minimum of 2 credits from two areas: anthropology, geography, history, political science, psychology, sociology.

Goal 6: Humanities and Fine Arts9 Credits

Choose from the following disciplines with a minimum of 2 credits from three different areas: art, English literature, foreign language, humanities, journalism, music, philosophy, speech/theatre.

II. HEALTH AND HUMAN PERFORMANCE2 Credits

Any combination of health and or physical education activity courses (1100-1199)

III. COMPUTER CORE REQUIREMENTS19 Credits

COMP 1150 Computer Science Concepts	3 Credits
COMP 2243 Programming & Problem Solving	4 Credits
COMP 2247 Algorithms and Data Structure	4 Credits

Note: Students are encouraged to begin taking WSU computer science courses concurrently after completing the above core requirements.

ACCT 2217 Principles of Accounting I	4 Credits
ACCT 2218 Principles of Accounting II	4 Credits

Total Credits64 Credits

Note: The award of the A.S. degree waives WSU University Studies requirements except for the Flag requirements (page 19).

MAJOR REQUIREMENTS AT WSU:

Computer Science Core 20 Credits

CS 310 Social Implications of Computing	3 Credits
CS 341 Data Structures and Software Design	4 Credits
CS 375 Computer Systems	4 Credits
CS 385 Applied Database Management Systems	3 Credits
CS 410 Software Engineering	3 Credits
CS 471 Object Oriented Design and Development	3 Credits

Computer Information Systems Track Requirements 12 Credits

Choose two of the following three courses:

CS 344 Introduction to Web Programming	3 Credits
CS 472 Reusable Software Architectures	3 Credits
CS 482 Internet/Web Architecture and Development	3 Credits

CS 485 Database System Design	3 Credits
MIS 362 Management Information Systems	3 Credits

Computer Information Systems Track Electives 15 Credits

Choose 9 credits from the following courses:

BUSA 291 Legal Environment of Business	3 Credits
ECON 201 Principles of Microeconomics	3 Credits
ECON 202 Principles of Macroeconomics	3 Credits
FIN 360 Corporate Finance	3 Credits
MKTG 300 Principles of Marketing	3 Credits
OM 334 Operations Management	3 Credits
MGMT 315 Principles of Management	3 Credits
MGMT 325 Organizational Dynamics	3 Credits

† Note: If the economics course is counted as a University Studies requirement, it will not be counted as part of the major.

Choose 6 credits from the following courses. At least 3 credits must be at the 400-level.

CS 313 Networking and Telecommunications	3 Credits
CS 368 OR Introduction to Bioinformatics	3 Credits
CS 369 Spatial Information Processing	3 Credits
CS 405 Operating Systems	3 Credits
CS 411 Software Testing	3 Credits
CS 413 Advanced Networking & Telecommunications	3 Credits
CS 415 Principles of Programming Languages	3 Credits
CS 420 Computer Architecture	3 Credits
CS 425 Numerical Analysis	4 Credits
CS 430 Computer Graphics	3 Credits
CS 433 Digital Image Processing	3 Credits
CS 435 Theory of Computation	3 Credits
CS 440 Theory of Algorithms	3 Credits
CS 444 Human Computer Interaction	3 Credits
CS 445 Artificial Intelligence	3 Credits
CS 450 Compilers	3 Credits
CS 465 Topics: Computing Theory	1-3 Credits
CS 466 Topics: General Computing Applications	1-3 Credits
CS 476 Distributed System: Concept and Design	3 Credits
CS 491 Practicum in Computer Science	6 Credits

Note: Only 3 credits will count in the major.

CS 495 Computer Science Research Seminar	3 Credits
PHYS 333 Microprocessor Electronics	4 Credits

OPEN ELECTIVES17 Credits

TOTAL CREDITS64 Credits

Required for a B. S. Degree in Applied Computer Science.....128 Credits

2 + 2 COMPUTER SCIENCE

Rochester Community and Technical College (RCTC) & Winona State University (WSU)

First two years:

Associate in Science (A.S.) degree in Liberal Arts at RCTC

Second two years:

Bachelor of Science (B.S.) degree in Computer Science at WSU

I. GENERAL EDUCATION REQUIREMENTS46 Credits

Courses must be selected from those approved to satisfy the competencies of Minnesota Transfer Curriculum (MNTC) Goals 1, 3, 4, 5, 6. Consult the RCTC catalog listings to determine the specific courses that apply to the areas below.

Goal 1: Written and Oral Communication.....11 Credits

ENGL 1117, 1118 Reading & Writing Critically I & II OR	8 Credits
ENGL 1917, 1918 Reading & Writing Critically I & II: Honors	8 Credits
SPCH 1114 Fundamentals of Speech	3 Credits

Goal 2: Critical Thinking - Met by Any Course in MNTC Goals 1-10

Goal 3: Natural Science.....6 Credits

Choose two courses with labs from two different areas: biology, chemistry, earth science, or physics.

Goal 4: Mathematics..... 14 Credits

MATH 2218 Discrete Mathematics	4 Credits
MATH 1127 Calculus I	5 Credits
MATH 1128 Calculus II	5 Credits

Goal 5: History and Social Sciences6 Credits

Choose from the following disciplines, with a minimum of 2 credits from two areas: anthropology, economics, geography, history, political science, psychology, sociology.

Goal 6: Humanities and Fine Arts.....9 Credits

Choose from the following disciplines with a minimum of 2 credits from three different areas: art, English literature, foreign language, humanities, journalism, music, philosophy, speech/theatre.

II. HEALTH AND HUMAN PERFORMANCE2 Credits

Any combination of health and or physical education activity courses (1100-1199)

III. COMPUTER CORE REQUIREMENTS.....11 Credits

- COMP 1150 Computer Science Concepts 3 Credits
COMP 2243 Programming & Problem Solving 4 Credits
COMP 2247 Algorithms and Data Structure 4 Credits

Note: Students are encouraged to begin taking WSU computer science courses concurrently after completing these core requirements.

Open Electives5 Credits

Total Credits64 Credits

Note: The award of the A.S. degree waives WSU University Studies requirements except for the Flag requirements (page 19).

MAJOR REQUIREMENTS AT WSU:

Computer Science Core 20 Credits

- CS 310 Social Implications of Computing 3 Credits
CS 341 Data Structures and Software Design 4 Credits
CS 375 Computer Systems 4 Credits
CS 385 Applied Database Management Systems 3 Credits
CS 410 Software Engineering 3 Credits
CS 471 Object Oriented Design and Development 3 Credits

Computer Science Option Requirements.....11 Credits

- CS 405 Operating Systems 3 Credits
CS 415 Principles of Programming Languages 3 Credits
CS 435 Theory of Computation 3 Credits
PHYS 332 Computer Organization 2 Credits

Computer Science Option Electives18 Credits

Choose 18 credits from the following list of courses:

- CS 313 Networking and Telecommunications 3 Credits
CS 344 Introduction to Web Programming 3 Credits
CS 368 Introduction to Bioinformatics OR 3 Credits
CS 369 Spatial Information Processing 3 Credits
CS 411 Software Testing 3 Credits
CS 413 Advanced Networking & Telecommunications 3 Credits
CS 420 Computer Architecture 3 Credits
CS 425 Numerical Analysis 4 Credits
CS 430 Computer Graphics 3 Credits
CS 433 Digital Image Processing 3 Credits
CS 440 Theory of Algorithms 3 Credits
CS 444 Human Computer Interaction 3 Credits
CS 445 Artificial Intelligence 3 Credits
CS 450 Compilers 3 Credits
CS 465 Topics: Computing Theory 1-3 Credits
CS 466 Topics: General Computing Applications 1-3 Credits
CS 472 Reusable Software Architectures 3 Credits
CS 476 Distributed System: Concept and Design 3 Credits
CS 482 Internet/Web Architecture and Development 3 Credits
CS 485 Database Systems Design 3 Credits
CS 491 Practicum in Computer Science 6 Credits

Note: Only 3 credits will count in the major.

- CS 495 Computer Science Research Seminar 3 Credits
PHYS 333 Microprocessor Electronics 4 Credits

Open Electives15 Credits

Total Credits64 Credits

Required for a B.S. Degree in Computer Science128 Credits

2 + 2 COMPUTER SCIENCE - BIOINFORMATICS

Rochester Community and Technical College (RCTC) & Winona State University (WSU)

First two years:

Associate in Science (A.S.) degree in Liberal Arts at RCTC

Second two years:

Bachelor of Science (B.S.) degree in Applied Computer Science with Bioinformatics Track at WSU

I. GENERAL EDUCATION REQUIREMENTS.....51 Credits

Courses must be selected from those approved to satisfy the competencies of Minnesota Transfer Curriculum (MNTC) Goals 1,3,4,5,6. Consult the RCTC catalog listings to determine the specific courses that apply to the areas below.

Goal 1: Written and Oral Communication.....11Credits

- ENGL 1117, 1118 Reading & Writing Critically I & II OR 8 Credits
ENGL 1917, 1918 Reading & Writing Critically I & II: Honors 8 Credits
SPCH 1114 Fundamentals of Speech 3 Credits

Goal 2: Critical Thinking - Met by Any Course in MNTC 1-10 Goals

Goal 3: Natural Science.....16 Credits

- BIOL 1220 Concepts of Biology 4 Credits
BIOL 2300 Genetics 4 Credits
CHEM 1127 Chemical Principles I 4 Credits
CHEM 1128 Chemical Principles II 4 Credits

Goal 4: Mathematics/Symbolic Reasoning 9 Credits

- MATH 1127 Calculus I 5 Credits
MATH 2218 Discrete Mathematics 4 Credits

Goal 5: History and the Social and Behavioral Sciences.....6 Credits

Choose courses from two different areas: anthropology, economics, geography, history, political science, psychology, sociology

Goal 6: Humanities and Fine Arts.....9 Credits

Choose courses from two different areas: art, English literature, foreign language, humanities, journalism, music, speech/theatre.

II. HEALTH AND HUMAN PERFORMANCE2 Credits

Any combination of health courses 1102, 1110, 1111, 1114, 1132, 1135 or 2126 AND/OR physical education courses 1100-1199. One credit may be from varsity athletics, PHED 1210-1236; 2210-2236.

III. COMPUTER CORE REQUIREMENTS:.....11 Credits

- COMP 1150 Computer Science Concepts 3 Credits
COMP 2243 Programming & Problem Solving 4 Credits
COMP 2247 Algorithms and Data Structure 4 Credits

Note: Students are encouraged to begin taking WSU computer science courses concurrently after completing these core requirements.

TOTAL CREDITS.....64 Credits

Note: The award of the A.S. degree waives all WSU University Studies requirements except for Flag requirements (Page 19).

MAJOR REQUIREMENTS AT WSU:

COMPUTER SCIENCE.....20 Credits

- CS 310 Social Implications of Computing 3 Credits
CS 341 Advanced Data Structures 4 Credits
CS 375 Computer Systems 4 Credits
CS 385 Applied Database Management Systems 3 Credits
CS 410 Software Engineering 3 Credits
CS 471 Object Oriented Design and Development 3 Credits

BIOINFORMATICS TRACK REQUIREMENTS9 Credits

- CS 368 Introduction to Bioinformatics 3 Credits
CS 468 Algorithms in Bioinformatics 3 Credits
CS 485 Database Systems Design 3 Credits

BIOINFORMATICS TRACK CS ELECTIVES.....6 Credits

Choose 6 credits from the following list of courses. At least 3 credits must be at the 400-level.

- CS 313 Networking and Telecommunications 3 Credits
CS 344 Introduction to Web Programming 3 Credits
CS 405 Operating Systems 3 Credits
CS 411 Software Testing 3 Credits
CS 413 Advanced Networking & Telecommunications 3 Credits
CS 415 Principles of Programming Languages 3 Credits
CS 420 Computer Architecture 3 Credits
CS 425 Numerical Analysis 4 Credits
CS 430 Computer Graphics 3 Credits
CS 433 Digital Image Processing 3 Credits
CS 435 Theory of Computations 3 Credits
CS 444 Human Computer Interaction 3 Credits
CS 445 Artificial Intelligence 3 Credits
CS 450 Compilers 3 Credits
CS 465 Topics: Computing Theory 1-3 Credits
CS 466 Topics: General Computing Applications 1-3 Credits
CS 472 Reusable Software Architectures 3 Credits
CS 476 Distributed System: Concept and Design 3 Credits
CS 482 Internet/Web Architecture and Development 3 Credits
CS 491 Practicum in Computer Science 6 Credits

Note: Only 3 credits will count in the major.

- CS 495 Computer Science Research Seminar 3 Credits
PHYS 333 Microprocessor Electronics 4 Credits

BIOINFORMATICS TRACK ELECTIVES3 Credits
 One of the following courses OR any 400-level CS elective course listed above:

CHEM340	Survey of Organic Chemistry	4 Credits
CHEM 350	Principles of Organic Chemistry I (WSU) OR	4 Credits
CHEM 2127	Organic Chemistry I (RCTC)	4 Credits

Any 400-level CS electives course listed above

OTHER MAJOR REQUIREMENTS AT WSU 7 Credits

STAT 303	Introduction to Engineering Statistics OR	3 Credits
STAT 305	Biometry	3 Credits
BIOL 242	Organismal Diversity (WSU) OR	4 Credits
BIOL 1230	Survey of Life Forms (RCTC)	4 Credits

Open Electives.....19 Credits
TOTAL CREDITS.....64 Credits
Required for a B.S. Degree in Applied Computer Science (Bioinformatics Track).....128 Credits

2 + 2 ELEMENTARY EDUCATION: K-6 W/MIDDLE LEVEL COMMUNICATION ARTS AND LITERATURE 5-8 SPECIALTY

Rochester Community and Technical College (RCTC) & Winona State University (WSU)

First two years:

Associate in Arts (A.A.) degree in Liberal Arts at RCTC

Second two years:

Bachelor of Science (B.S.) teaching degree in Elementary Education with Middle Level Communication Arts & Literature (KMCL) at WSU

I. GENERAL EDUCATION REQUIREMENTS.....44 Credits

Courses must be selected from those approved to satisfy the competencies of Minnesota Transfer Curriculum (MNTC) Goals 1-10. Consult the RCTC catalog listings to determine the specific courses that apply to the areas below. Some courses may be used to meet a goal in 1-6 and one goal in 7-10. All ten goal areas must be met.

Goal 1: Written and Oral Communication14 Credits

ENGL 1117, 1118	Reading & Writing Critically I & II OR	8 Credits
ENGL 1917, 1918	Reading & Writing Critically I & II: Honors	8 Credits

Note: Minimum grade of "B" in one of the two is required.

SPCH 1114	Fundamentals of Speech	3 Credits
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Note: Minimum grade of "B" is required.

SPCH 2214	Strategies of Human Connections	3 Credits
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Goal 2: Critical Thinking - Met by Any Course in MNTC Goals 1-10

Goal 3: Natural Science6 Credits

Choose two courses with labs from two different areas: biology, chemistry, earth science, or physics.

Goal 4: Mathematics6 Credits

MATH 1111	Contemporary Concepts in Mathematics (or higher)	3 Credits
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(Note: Minimum grade of "C" in MATH 1111 required) **AND**

MATH 1112	Mathematical Reasoning	3 Credits
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Goal 5: History and Social Sciences9 Credits

SOC 2627	Human Exceptionality	2 Credits
HIST 1624	U.S. History to 1865 OR	4 Credits
HIST 1625	U.S. History 1865 to Present	4 Credits

Choose remaining credits from the following disciplines: anthropology, economics, geography, political science, psychology.

Goal 6: Humanities and Fine Arts.....9 Credits

ENGL 2297	Children's Literature	3 Credits
SPCH 1125	Oral Interpretation	3 Credits

Choose from the following disciplines with a minimum of 2 credits from the following areas: art, foreign language, humanities, journalism, music, philosophy.

Select a course that meets Goals 7, 8, 9, and 10 if any of these goals have not been met by the courses used to meet Goals 1, 3, 4, 5, and 6.

II. HEALTH AND HUMAN PERFORMANCE4 Credits

Any combination of health and or physical education activity courses (1100-1199)

HLTH 1111	Health Education OR	3 Credits
HLTH 1132	Drug Use and Abuse	3 Credits

III. ELECTIVES.....16 Credits

TOTAL CREDITS.....64 Credits

Note: The award of the A.A. degree waives WSU University Studies requirements except for the Flag requirements (page 19).

MAJOR REQUIREMENTS AT WSU:

License Requirements10-13 Credits

MTED 125	Mathematics for Elementary Teachers	4 Credits
PER 200	Teaching Elementary Physical Education	3 Credits
HERS 320	Health Education in Elementary Schools	3 Credits
EDUC 352	Integrating Microcomputers into the Classroom (OR competency)	0-3 Credits

Professional Education Sequence and Teaching Methods54 Credits

EDUC 304	Human Development and Learning: Middle Level & K-12	4 Credits
EDUC 308	Human Relations and Student Diversity	3 Credits
EDUC 311	Instructional Planning & Assessment: Middle Level and K-12	3 Credits
EDUC 449	Middle Level Philosophy, Organization & Interdisciplinary Planning	3 Credits
EDUC 459	The Professional Educator	3 Credits
EDUC 328	Teaching Reading and Language Arts I	3 Credits
EDUC 329	Teaching Reading and Language Arts II	3 Credits
EDUC 330	Literacy for Second Language Learners	3 Credits
EDUC 333	Teaching Social Studies in the Elementary School	3 Credits
EDUC 334	Teaching Mathematics in the Elementary School	3 Credits
EDUC 335	Teaching of Science & Environmental Studies in the Elementary School	3 Credits
MUS 320	Music for Elementary Teachers	3 Credits
ART 300	Elementary Art Education	3 Credits
EDUC 464	Student Teaching/K-6 Middle Level	11-14 Credits

Total Credits64 Credits

Required for a B.S. Degree in Elementary Education:

K-6 with Middle Level Communication Arts & Literature 5-8 Specialty (KMCL).....128 Credits

2 + 2 ELEMENTARY EDUCATION: K-6 W/MIDDLE LEVEL SOCIAL STUDIES 5-8 SPECIALTY

Rochester Community and Technical College (RCTC) & Winona State University (WSU)

First two years:

Associate in Arts (A.A.) degree in Liberal Arts at RCTC

Second two years:

Bachelor of Science (B.S.) teaching degree in K-6 with Middle Level Social Studies 5-8 Specialty (KMSO) at WSU

I. GENERAL EDUCATION REQUIREMENTS.....54 Credits

Courses must be selected from those approved to satisfy the competencies of Minnesota Transfer Curriculum (MNTC) Goals 1-10. Consult the RCTC catalog listings to determine the specific courses that apply to the areas below. Some courses may be used to meet a goal in 1-6 and one goal in 7-10. All ten goal areas must be met.

Goal 1: Written and Oral Communication11 Credits

ENGL 1117, 1118	Reading & Writing Critically I & II OR	8 Credits
ENGL 1917, 1918	Reading & Writing Critically I & II: Honors	8 Credits

Note: Minimum grade of "B" in one of the two is required.

SPCH 1114	Fundamentals of Speech	3 Credits
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Note: Minimum grade of "B" is required.

Goal 2: Critical Thinking - Met by any Course in MNTC 1-10 Goals

Goal 3: Natural Science6 Credits

Choose two courses with labs from two different areas: biology, chemistry, earth science, or physics.

Goal 4: Mathematics6 Credits

MATH 1111	Contemporary Concepts in Mathematics (or higher) AND	3 Credits
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(Note: Minimum grade of "C" in MATH 1111 required.) **AND**

MATH 1112	Mathematical Reasoning	3 Credits
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Goal 5: History and Social Sciences22-26 Credits

ECON 1101	Introduction to Economics	3 Credits
GEOG 1614	Human Geography	3 Credits
HIST 1613	Foundations of Western Civilizations OR	4 Credits
HIST 1614	Europe in the Modern Ages	3 Credits
HIST 1624	U.S. History to 1865	4 Credits
HIST 1625	U.S. History 1865 to Present	4 Credits
SOC 1614	Introduction to Sociology	3 Credits
SOC 2627	Human Exceptionality	2 Credits
ANTH 1612	Cultural Anthropology OR	3 Credits
HIST 1631	Modern Asian Civilization OR	3 Credits
SPAN 1001	Introduction to Hispanic Cultures (Goal 6)	3 Credits

Goal 6: Humanities and Fine Arts.....9 Credits

ENGL 2297 Children's Literature 3 Credits
 Choose from the following disciplines with a minimum of 2 credits from three different areas: art, foreign language, humanities, journalism, music, philosophy, speech/theatre.

Select a course that meets Goals 7, 8, 9, 10 if these goals have not been met by the courses used to meet Goals 1, 3, 4, 5, 6.

II. HEALTH AND HUMAN PERFORMANCE.....4 Credits
 Any combination of health and or physical education activity courses (1100-1199)

HLTH 1111 Health Education OR 3 Credits
 HLTH 1132 Drug Use and Abuse 3 Credits

III. ELECTIVES.....2-9 Credits
TOTAL CREDITS.....64 Credits

Note: The award of the A.A. degree waives WSU University Studies requirements except for the Flag requirements (page 19).

MAJOR REQUIREMENTS AT WSU:

License Requirements 10-13 Credits

MTED 125 Mathematics for Elementary Teachers 4 Credits
 PER 200 Teaching Elementary Physical Education 3 Credits
 HERS 320 Health Education in Elementary Schools 3 Credits
 EDUC 352 Integrating Microcomputers into the Classroom (OR competency) 0-3 Credits

Professional Education Sequence and Teaching Methods54 Credits

EDUC 304 Human Development and Learning: Middle Level & K-12 4 Credits
 EDUC 308 Human Relations and Student Diversity 3 Credits
 ⊕ EDUC 311 Instructional Planning & Assessment: Middle Level and K-12 3 Credits
 ⊕ EDUC 449 Middle Level Philosophy, Organization & Interdisciplinary Planning 3 Credits
 ⊕ EDUC 459 The Professional Educator 3 Credits
 EDUC 328 Teaching Reading and Language Arts I 3 Credits
 EDUC 329 Teaching Reading and Language Arts II 3 Credits
 EDUC 330 Literacy for Second Language Learners 3 Credits
 EDUC 333 Teaching Social Studies in the Elementary School 3 Credits
 EDUC 334 Teaching Mathematics in the Elementary School 3 Credits
 EDUC 335 Teaching of Science & Environmental Studies in the Elementary School 3 Credits
 MUS 320 Music for Elementary Teachers 3 Credits
 ART 300 Elementary Art Education 3 Credits
 ⊕ EDUC 464 Student Teaching/K-6 Middle Level 11-14 Credits

TOTAL CREDITS.....64 Credits

Required for a B.S. Degree in Elementary Education: K-6 with Middle Level Social Studies 5-8 Specialty (KMSO)128 Credits

2 + 2 NURSING (GENERIC OPTION)

Rochester Community and Technical College (RCTC) & Winona State University (WSU)

First two years:

Associate in Science (A.S.) degree in Liberal Arts & Studies at RCTC

Second two years:

Bachelor of Science (B.S.) degree in Nursing at WSU

I. GENERAL EDUCATION REQUIREMENTS 60 Credits

Courses must be selected from those approved to satisfy the competencies of Minnesota Transfer Curriculum (MNTC) Goals 1-10. Consult the RCTC catalog listings to determine the specific courses that apply to areas below. Some courses may be used to meet a goal in 1-6 and one goal in 7-10. All ten goals must be met.

Goal 1: Written and Oral Communication 11 Credits

†ENGL 1117, 1118 Reading & Writing Critically I & II OR 8 Credits
 †ENGL 1917, 1918 Reading & Writing Critically I & II: Honors 8 Credits
 SPCH 1114 Fundamentals of Speech 3 Credits

Goal 2: Critical Thinking - Met by any Course in MNTC 1-10 Goals

Goal 3: Natural Science 20 Credits

†BIOL 1217 Anatomy and Physiology I 4 Credits
 †BIOL 1218 Anatomy and Physiology II 4 Credits
 †BIOL 2021 General Microbiology 4 Credits
 †CHEM 1117 General, Organic and Biological Chemistry I 4 Credits
 †CHEM 1118 General, Organic and Biological Chemistry II 4 Credits

Goal 4: Mathematics 4 Credits

MATH 2208 Fundamentals of Statistics 4 Credits

Goal 5: History and Social Sciences 16 Credits

†PSYC 2618 General Psychology 4 Credits

†PSYC 2626 Human Growth & Development 3 Credits

†SOC 1614 Introduction to Sociology 3 Credits

†SOC 2612 Marriage and the Family across the Life Span 3 Credits

3 credits from one of the following areas: anthropology, geography, history, political science.

Goal 6: Humanities and Fine Arts 9 Credits

Choose from the following disciplines with a minimum of 2 credits from three different areas: art, English literature, foreign language, humanities, journalism, music, philosophy, speech/theatre.

Select a Goal 7, 8, 9, 10 course if these areas have not been met by Goals 1, 3, 4, 5, 6.

II. HEALTH AND HUMAN PERFORMANCE.....4 Credits

Any combination of health and/or physical education activity courses (1100-1199)

III. NURSING CORE REQUIREMENTS3 Credits

†NUTR 1211 Principles of Nutrition 3 Credits

TOTAL CREDITS.....67 Credits

Note: The award of the A.A. degree waives WSU University Studies requirements except for the Flag requirements (page 19).

† Indicates required courses for the WSU Nursing program. Prior to applying to the nursing program, the follow prerequisite courses must be completed: ENGL 1117/1118 or 1917/1918 and four of the following: BIOL 1217, BIOL 1218, BIOL 2021, NUTR 1211, and both CHEM 117 AND CHEM 1118 (both are needed to meet the chemistry course minimum). All must be completed before a student can begin the Nursing program. MATH 2208 is prerequisite to WSU's NURS 375.

MAJOR REQUIREMENTS AT WSU:

Nursing56 Credits

NURS 300 Caring Skills I 2 Credits
 NURS 301 Caring Skills II 2 Credits
 NURS 311 Clinical Decisions: Adult Health I 2 Credits
 NURS 320 Caring Concepts I 3 Credits
 NURS 321 Caring Concepts II 3 Credits
 ⊕ NURS 330 Role Development I 3 Credits
 NURS 331 Role Development II 4 Credits
 NURS 345 Health Assessment I 3 Credits
 NURS 360 Pharmacology 1 Credit
 NURS 366 Pathophysiology 3 Credits
 ⊕ NURS 375 Nursing Research, Theory and Technology 3 Credits
 NURS 400 Emerging Health Care Systems 2 Credits
 NURS 411 Clinical Decisions: Adult Health II 2 Credits
 NURS 413 Nursing of Families Experiencing Mental Illness 2 Credits
 NURS 421 Nursing of Childbearing Families 2 Credits
 NURS 422 Nursing of Childrearing Families 2 Credits
 ⊕ NURS 423 Role Development III 4 Credits
 NURS 433 Role Development III Seminar 1 Credit
 NURS 471 Community Health Care 2 Credits
 NURS 472 Leadership/Management in Nursing 2 Credits
 NURS 474 Role Development IV 4 Credits
 NURS 484 Role Development IV Seminar 1 Credit
 ⊕ NURS 491 Capstone Experience in Role Synthesis 3 Credits

Nursing Major Electives.....5 Credits

5 credits of upper-division electives (300-400 level courses); 2 of these credits must be nursing electives.

Open Electives.....3 Credits

Total Credits64 Credits

Required for a B.S. Degree in Nursing.....128 Credits

2 + 2 PSYCHOLOGY

Rochester Community and Technical College (RCTC) & Winona State University (WSU)

First two years:

Associate in Science (A.S.) degree in Liberal Arts at RCTC

Second two years:

Bachelor of Arts (B.A.) degree in Psychology at WSU

I. GENERAL EDUCATION REQUIREMENTS.....40 Credits

Courses must be selected from those approved to satisfy the competencies of the Minnesota Transfer Curriculum (MNTC) Goals 1-10.

Consult the RCTC catalog listings to determine which courses satisfy the areas listed below. Some courses may be used to meet a goal in 1-6 and one goal in 7-10. All ten goal areas must be met.

Goal 1: Written and Oral Communications11 Credits
 ENGL 1117, 1118 Reading & Writing Critically I and II OR 8 Credits
 ENGL 1917, 1918 Reading & Writing Critically I and II:
 Honors 8 Credits
 SPCH 1114 Fundamentals of Speech 3 Credits

Goal 2: Critical Thinking - Met by Any Course in MNTC 1-10 Goals
Goal 3: Natural Sciences6 Credits
 Choose two courses with labs from two different areas: biology, chemistry, earth science, physics.

Goal 4: Mathematics3 Credits
 MATH 1111 Contemporary Concepts in Mathematics OR higher 3 Credits

Goal 5: History And Social Sciences9 Credits
 Choose from the following disciplines with a minimum of 2 credits from three different areas: anthropology, economics, geography, history, political science, sociology.

Note: The B.A. in Psychology requires a minor. Minors are available in business administration, computer science, and sociology. Students should consult with an advisor as early as possible to review course requirements for these minors.

Goal 6: Humanities and Fine Arts9 Credits
 Choose from the following disciplines with a minimum of 2 credits from three different areas: art, English literature, foreign literature, humanities, journalism, music, philosophy, speech/theatre.

Select a Goal 7, 8, 9, 10 course if these areas have not been met by the courses used to meet Goals 1, 3, 4, 5, or 6.

II. HEALTH AND HUMAN PERFORMANCE4 Credits
 Any combination of health and/or physical education activity courses (1100-1199)

III. PSYCHOLOGY CORE REQUIREMENTS6 Credits
 PSYC 2618 General Psychology 3 Credits
 PSYC 2626 Developmental Psychology 3 Credits

IV. OPEN ELECTIVES14 Credits

TOTAL CREDITS64 Credits
Note: The award of the A.A. degree waives WSU University Studies requirements except for the Flag requirements (page 19).

MAJOR REQUIREMENTS AT WSU:

Psychology29 Credits
 [P] PSY 231 Statistics 3 Credits
 PSY 308 Experimental Psychology 3 Credits
 [C] PSY 309 Experimental Psychology Lab 2 Credits
 [P] PSY 350 Psychological Testing and Measurement 3 Credits
 [P] PSY 434 History and Systems of Psychology 3 Credits
 Psychology electives to complete the major 15 Credits

Credits to Complete Minor and Open Electives35 Credits
TOTAL CREDITS64 Credits
Required for a B.A. Degree in Psychology with a Minor128 Credits

2 + 2 SOCIAL WORK

Rochester Community and Technical College (RCTC) & Winona State University (WSU)

First two years:

Associate in Arts (A.A.) degree in Liberal Arts at RCTC

Second two years:

Bachelor of Science (B.S.) degree in Social Work at WSU

I. GENERAL EDUCATION REQUIREMENTS42 Credits
 Courses must be selected from those approved to satisfy the competencies of the Minnesota Transfer Curriculum (MNTC) Goals 1-10. Consult the RCTC catalog listings to determine which courses satisfy the areas listed below. Some courses may be used to meet a Goal in 1-6 and one goal in 7-10. All ten goal areas must be met.

Goal 1: Written and Oral Communications11 Credits
 ENGL 1117, 1118 Reading & Writing Critically I and II OR 8 Credits
 ENGL 1917, 1918 Reading & Writing Critically I and II:
 Honors 8 Credits
 SPCH 1114 Fundamentals of Speech 3 Credits

Goal 2: Critical Thinking - Met by Any Course in MNTC 1-10 Goals
Goal 3: Natural Sciences7 Credits
 BIOL 1110 Human Biology 4 Credits
 A second course with lab from the following areas: chemistry, earth science, or physics.

Goal 4: Mathematics3 Credits
 MATH 1111 Contemporary Concepts in Mathematics 3 Credits
 MATH 2208 Fundamentals of Statistics 4 Credits
 (Optional) This course or PSY 231 at WSU is required in the major.

Goal 5: History and Social Sciences12 Credits
 PSYC 2618 General Psychology 3 Credits
 PSYC 2626 Developmental Psychology 3 Credits
 SOC 1614 Introduction to Sociology 3 Credits

A minimum of 3 credits from one of the following disciplines: anthropology, economics, geography, history, political science.

Goal 6: Humanities And Fine Arts9 Credits
 Choose from the following disciplines with a minimum of 2 credits from three different areas: art, English literature, foreign language, humanities, journalism, music, philosophy, speech/theater.

Select a course that meets Goals 7, 8, 9, 10 if any of these goals have not been met by courses used to meet Goals 1, 3, 4, 5, or 6.

II. HEALTH AND HUMAN PERFORMANCE4 Credits
 Any combination of health and/or physical education activity courses (1100-1199)

III. ELECTIVES18 Credits
Note: Concurrent enrollment at WSU in spring term of the final year at RCTC.

[C] SOCW 340 Introduction to Social Work 3 Credits
 SOCW 350 Field Experience 3 Credits

TOTAL CREDITS64 Credits

Note: The award of the AA degree waives all WSU University Studies requirements except for the Flag requirements (page 19).

MAJOR REQUIREMENTS AT WSU:

Social Work46-49 Credits
 [P] PSY 231 Statistics OR 3 Credits
 STAT 110 Fundamentals of Statistics 3 Credits
Note: If MATH 2208 was taken at RCTC, neither of the above is required.
 [C] SOCW 340 Introduction to Social Work 3 Credits
 SOCW 350 Field Experience 3 Credits
 SOCW 365 Social Work Practice I - Ethics and Interviewing 3 Credits
 SOCW 370 Human Behavior in the Social Environment 3 Credits
 SOCW 380 Social Welfare Policy I 3 Credits
 SOCW 385 Social Work Practice II - Families and Groups 3 Credits
 [P] SOCW 390 Social Work Research Process and Skills 3 Credits
 SOCW 400 Social Work Practicum Preparation 4 Credits
 [P] SOCW 410 Analysis of Social Welfare Policy 3 Credits
 SOCW 415 Social Work Practice III - Organizations and Communities 3 Credits
 SOCW 475 Social Work Senior Practicum 12 Credits
 [P] SOCW 480 Integrative Social Work Seminar 3 Credits
 SOC 423 Race Relations OR 3 Credits
 SOCW 435 Social Work with Diverse Populations 3 Credits

Open Electives15-18 Credits
TOTAL CREDITS64 Credits
Required for a B.S. Degree in Social Work128 Credits

WSU COLLEGES AND UNDERGRADUATE PROGRAMS

The remainder of this catalog is arranged in the following major sections:

- Description of the colleges that make up the University: College of Business, College of Education, College of Liberal Arts, College of Nursing and Health Sciences, and College of Science and Engineering.
- Alphabetic listing of all academic programs (including pre-professional and professional sequences).

For each program, the catalog outlines the following information: majors, minors, program options, and licensure programs; program-specific academic requirements; graduation requirements; and course descriptions. Course descriptions include the following elements:

Course Number, Title, and Credits: The 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 fewer 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.

Course Content: A brief description of subject matter gives

students an idea of what to expect in the course.

Prerequisites: A prerequisite is either a course that must be completed prior to enrolling in the course or some other requirement that must be met prior to enrolling in the course.

Grading Method: If a course is offered on a grade-only or pass/no credit-only basis, that status is included in the course description. A department's general pass/no credit policy is included in its listing of program requirements. Students should check the policy before enrolling in a course on a pass/no credit basis.

Frequency of Offering: Course descriptions may indicate how often the course is offered.

Course Number, Title, Credits	Course Content
<p>420 - Computer Integrated Manufacturing (3 S.H.) Evolution of the manufacturing system. Functions and interactions in a manufacturing system. Analytical tools and simulation software are used in evaluating manufacturing systems. Prerequisite: ENGR 390. Grade only. Offered yearly.</p>	
Frequency of Offering	Grading Method
Prerequisites	

COLLEGE OF BUSINESS

Gabriel Manrique, Acting Dean
Somsen Hall, Room 309 (507-457-5014)

MISSION

The mission of Winona State University'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, 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.

Programs are designed to help students to:

- Secure a basic education in the arts and sciences, unity and diversity, science and social policy, global or multicultural perspectives, and contemporary citizenship or democratic institutions.
- Possess a basic knowledge of accounting, economics, finance, management, marketing, and the legal environment of business.
- Use effective written and oral communication skills, quantitative skills, critical thinking and problem-solving skills, and ethical reasoning.
- Acquire basic knowledge of and skills in information systems and business technology.
- Develop an appropriate specialization within the College of Business.
- 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 the Minnesota State Colleges and Universities system; and solicit input from stakeholders-students, alumni, and businesses.

DEPARTMENTS

Accounting, Business Administration, Economics and Finance, Management of Information Systems and Operations, and Marketing

FACULTY

Over 85 percent of business faculty hold terminal degrees in their respective fields of study. In addition to their dedication to teaching, the majority engage in significant ongoing research in business. Faculty members also bring to their teaching the knowledge they gain from regularly consulting with businesses and nonprofit organizations. Many business faculty participate in developing innovative and interdisciplinary approaches to teaching that help to broaden student perspectives.

CAREER OPPORTUNITIES

The career opportunities for business majors continue to be strong and varied. Many graduates of the College of Business are employed by top accounting firms and leading international and domestic corporations. Some work in government agencies and nonprofit organizations. A significant number of WSU business majors attend graduate school sometime during their professional career.

INTERNSHIPS

All of the College's departments have internship opportunities that allow students to gain valuable business experience before they graduate. Many of these internships lead to job opportunities immediately after graduation.

SCHOLARSHIPS

In addition to university-wide scholarships, a number of scholarships are designated for majors in the College of Business. These scholarships are awarded on a competitive basis. Students should watch for the application deadlines during the spring semester and apply directly to the College of Business.

STUDENT ORGANIZATIONS

The College of Business has a student organization for each of its major fields. These organizations provide students with numerous opportunities to prepare for their profession through attendance at conferences and workshops, interaction with practitioners in their field, and social networking. The student organizations are actively involved in bringing speakers to campus on a broad range of business topics.

UNDERGRADUATE DEGREES OFFERED BY THE COLLEGE OF BUSINESS

Bachelor of Arts	Major	Minor
Economics	X	X
Bachelor of Science		
Accounting	X	X
Business Administration	X	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	X
Operations Management		X

COLLEGE OF EDUCATION

Cecilia Rokusek, Dean
Gildemeister Hall, Room 135 (507-457-5570)

MISSION

The College of Education's mission is to provide continuing leadership and excellence in preparing classroom teachers, counselors, administrators, and other educational professionals. It accomplishes its mission by offering undergraduate and graduate programs to prepare professionals for public and private schools in the region.

The College strives to provide the knowledge, skills, professionalism, and practice necessary to enable students to perform with excellence as educational professionals and leaders in the service region, state, nation, and world. 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 and understanding 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.

DEPARTMENTS

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

Note: The Department of Educational Leadership offers only graduate-level degree and licensure programs. See the *Graduate Catalog* for more information.

ADMISSION AND GRADUATION STANDARDS

Refer to the appropriate department for details. For a checklist of the University graduation requirements, see page 22.

ACCREDITATION AND PROFESSIONAL MEMBERSHIP

WSU is accredited by the National Council for Accreditation of Teacher Education (NCATE). All teacher education and school counselor programs have been approved by the Minnesota Board of Teaching. In addition, several programs have received national recognition from the following professional organizations: National Association for the Education of Young Children, National Council of Teachers of English, Association for Childhood Education International, Council for Exceptional Children, National Council for the Social Studies, and the National Council of Teachers of Mathematics.

The Counselor Education programs are accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) and NCATE. Programs in the Department of Educational Leadership are also accredited by NCATE and approved by the Minnesota Board of School Administrators.

The College of Education is a member of the American Association of Colleges for Teacher Education (AACTE) and the Minnesota Association of Colleges for Teacher Education (MACTE).

PARTNERSHIPS

The College of Education and the Professional Education Unit are committed to active and equal partnerships with local schools and other educational organizations as demonstrated by (but not limited to) the following ongoing partnerships including:

- The Teacher Education Partnership with 13 school districts in the Hiawatha Valley Education District.
- Urban Teacher Education Partnership with six schools, including the West Side Schools of Excellence and Four Seasons A+ of the Saint Paul Public Schools, and five Minnesota State Universities.
- A student teaching exchange program with Fort Valley State University (Fort Valley, Georgia).
- Teacher exchanges of university faculty and school district faculty.
- Graduate Induction Program with Rochester Public Schools (Rochester, Minnesota).
- Learning Community Master Teacher Program.
- Innovative Academic Programs.
- Post Baccalaureate Program.

HONOR SOCIETIES AND STUDENT ORGANIZATIONS

Academically accomplished students are recognized by WSU chapters of the professional honor societies Kappa Delta Pi and Alpha Omega Upsilon. Pre-professional students may join student chapters of professional organizations: Education Minnesota Student Program, Student Council for Exceptional Children, Student International Reading Association, Student Association for Supervision and Curriculum Development, and the Therapeutic Recreation/Recreation Club.

MAXWELL CHILDREN'S CENTER

The Maxwell Children's Center (located in Maxwell Hall) provides a living laboratory of child development and exemplary practice for students in professional education programs at WSU. Future teachers

have opportunities to work with and observe children from birth through school age. The Children's Center is an important part of the College of Education and the Professional Education Unit. The Center keeps the learning and development of children at the forefront of our professional education programs.

In addition to experiences at the Maxwell Children's Center, students in professional education programs in the College of Education are in schools and other professional settings throughout their programs. Teacher education majors can expect to spend time in Pre K-12 classrooms every semester while they are in the program, beginning as early as their second semester on campus. Recreation majors culminate their programs in an internship of their choosing after a variety of professional experiences within their major courses.

UNDERGRADUATE DEGREES OFFERED BY THE COLLEGE OF EDUCATION

Bachelor of Science	Teaching Major	Non-Teaching Major	Non-Teaching Minor
Adventure Tourism			X
Business Education	X		
Coaching			X
Elementary Education with Early Childhood Emphasis	X		
K-6 with Middle Level Communication Arts and Literature 5-8 Specialty	X		
K-6 with Middle Level Mathematics 5-8 Specialty	X		
K-6 with Middle Level Science 5-8 Specialty	X		
K-6 with Middle Level Social Studies 5-8 Specialty	X		
Physical Education	X		
Recreation, Tourism and Therapeutic Recreation			
Option A, Recreation and Tourism		X	
Option B, Therapeutic Recreation		X	
Special Education			
Developmental Disabilities	X		
Learning Disabilities	X		
Training and Development			X

GRADUATE DEGREES OFFERED BY THE COLLEGE OF EDUCATION

See the *Graduate Catalog* for program descriptions and other pertinent information.

ADVANCED LICENSURE PROGRAMS

- Learning Disabilities (LD)
- Developmental Disabilities (DD)

CERTIFICATE PROGRAMS

- Educational Technology Certificate
- Outdoor Education/Adventure Based Leadership
- Training and Development Certificate

MASTER OF SCIENCE (M.S.)

Counselor Education

- Community Counseling—Focus: Chemical Dependency Counseling
- Elementary School Counseling
- Secondary School Counseling
- Professional Development

Education

- Early Childhood
- Graduate Induction Program (GIP)
- K-12 Education
- Master Teacher Program
- Middle Level
- Secondary

Educational Leadership

- General School Leadership (non-licensure)
- K-12 Principalship (non-Minnesota licensure)

Special Education

- Learning Disabilities (LD)
- Developmental Disabilities (DD)

EDUCATIONAL SPECIALIST (Ed.S.)

Educational Leadership

- PK-12 Principal
- Superintendent

COLLEGE OF LIBERAL ARTS

Troy Paino, Dean
Minné Hall, Room 206 (507-457-5017)

MISSION

The 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 arts studies as the foundation of all degrees. These two facets of the mission translate into the two major responsibilities for faculty members:

- Providing a broad array of quality programs in the liberal arts and related professional fields.
- Providing the majority of the University Studies 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 lifelong 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. Contribute to the development of basic and applied knowledge in the liberal arts fields.

DEPARTMENTS/PROGRAMS

Art, Communication Studies, Criminal Justice, English, Foreign Language, Global Studies, Graphic Design, History, Law and Society, Mass Communication, Music, Paralegal, Philosophy, Political Science, Psychology, Public Administration, Social Work, Sociology, Theatre and Dance, and Women's and Gender Studies.

FACULTY

Over 80 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.

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. Departments within the College of Liberal Arts 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.

RESEARCH, COMMUNITY SERVICE, AND PARTNERSHIPS

The College supports faculty/student research, community service, and partnerships with business and nonprofit agencies in a variety of ways. Examples of departments that encourage faculty/student research include Psychology, History, and Law and Society. Examples of partnerships include the National Child Protection Training Center and the Child Advocacy Program, Theater du Mississippi for the Frozen River Film Festival, and the Great River Shakespeare Festival. Several departments encourage or require internships, capstone experiences, and community service opportunities, which involve working with the City of Winona; the Women's Resource Center; Olmsted County and Winona County Prosecutor's Offices; the Winona County Historical Society; Fastenal Company; Catholic Charities' Refugee Resettlement in Rochester; and others.

The College also supports study abroad opportunities, including a joint degree arrangement with Soonchunhyang University in Seoul, South Korea; study of Spanish language and culture at the University of Granada; and study abroad agreements with Southern Cross University in Australia, Akita International University in Japan, and Hebei University of Technology in China. In addition, there are opportunities available through other universities.

SCHOLARSHIPS

In addition to general university scholarships, several departments offer scholarships for their majors. Such scholarships are available in art, history, music, paralegal, social work, sociology, psychology, and theatre. Contact the appropriate department for more details.

FACILITIES

The majority of the liberal arts faculty offices and facilities are located in Minné Hall or the Performing Arts Center. The Art Department is located in Watkins Hall; the Foreign Language Department is in Somsen Hall; the Psychology Department, Mass Communication Department, and Dance Studio are in Phelps Hall.

UNDERGRADUATE DEGREES OFFERED BY THE COLLEGE OF LIBERAL ARTS

Bachelor of Arts	Major	Minor
Art		
Graphic Design Option	X	
Studio Art Option	X	X
History of Art		X
Communication Studies	X	X
Dance		X
English: Literature and Language	X	X
Writing Option	X	
First Combining Major - Literature and Language	X	
Second Combining Major - Writing Option	X	
Creative Writing		X
Applied and Professional Writing		X
French	X	X
Geography		X
German	X	X
Global Studies		X
Asian Option	X	
North American Option	X	
History	X	X
Intercultural Communication		X
Law and Society	X	
Mass Communication		X
Advertising Option	X	
Broadcasting Option	X	

	Major	Minor
Journalism Option	X	
Photojournalism Option	X	
Public Relations Option	X	
Music		X
Liberal Arts Option	X	
Performance Option	X	
Philosophy		X
Political Science		X
General (Option A)	X	
International Studies (Option B)	X	
Professional Studies		X
General Option	X	
Aviation Maintenance Management Option	X	
Psychology		X
Option A	X	
Option B	X	
Sociology	X	X
Family Studies Option	X	
Human Services Option	X	
Gerontology	X	X
Spanish	X	X
Theatre	X	X
Women's and Gender Studies		X

Bachelor of Science	Major	Minor
Art (teaching)	X	
Communication Arts and Literature (teaching)	X	
French (teaching)	X	
German (teaching)	X	
Music		X
Music Business	X	
Music Education (teaching)		
Instrumental Option	X	
Vocal Option	X	
Paralegal		
Option A	X	
Option B	X	

	Major	Minor
Public Administration	X	X
Social Science/History (Secondary Social Studies Teaching)	X	
Social Work	X	
Sociology: Criminal Justice		
Law Enforcement Option	X	
Corrections Option	X	
Spanish (teaching)	X	

GRADUATE DEGREES OFFERED BY THE COLLEGE OF LIBERAL ARTS

Master of Arts - English Master of Science - English
See the *Graduate Catalog* for program descriptions and other pertinent information.

COLLEGE OF NURSING AND HEALTH SCIENCES

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

MISSION

The College of Nursing and Health Sciences 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.

ACCREDITATION

All undergraduate and graduate nursing programs are fully accredited (2003-2013) by the Commission on Collegiate Nursing Education (CCNE), 1 Dupont Circle NW, Suite 530, Washington, DC 20036-1120. CCNE exclusively accredits baccalaureate and higher degree programs in nursing. The undergraduate nursing major is approved by the Minnesota Board of Nursing (2003-2013).

The Athletic Training Option of the Exercise and Rehabilitative science major holds full accreditation by the Commission for Accreditation of Allied Health Education Programs (CAAHEP). All health education programs have continuing accreditation by the National Council for Accreditation of Teacher Education (NCATE) and approval by the Minnesota Board of Teaching.

DEPARTMENTS

- Nursing
- Health, Exercise and Rehabilitative Sciences

SCHOLARSHIP AND COMMUNITY SERVICE

The College supports faculty and student scholarship/research within the University and with educational partners in the region. Faculty hold joint appointments or consultant roles with agencies such as Gundersen-Lutheran Medical Center and Mayo-Franciscan Skemp (La Crosse, WI); Mayo Department of Nursing (Rochester, MN); Migrant Health Center and Community Clinic (Rochester, MN); Hawthorne Center (Rochester, MN); Winona Health (Winona, MN); Olmsted County Public Health Services (Rochester, MN); and the University of West Indies School of Nursing (Kingston, Jamaica, West Indies). Faculty collaborate with major clinical education partners on local, regional and national funded projects.

Community service is demonstrated in many ways within and outside the University. Faculty hold practice appointments in the Hiawatha Valley Mental Health Center (Winona, MN) and the Migrant Health and Community Clinic (Rochester, MN); manage the campus cardiopulmonary rehabilitation program; direct research in the campus human performance laboratory; and collaborate with major affiliates on local, regional, and national service-learning projects.

FACULTY

A majority of the faculty hold doctoral degrees earned at prominent universities throughout the United States. In addition, the learning

environment in the classroom and practica/internship/clinical sites are supported by other professional experts in the region who hold graduate degrees in nursing and the health sciences. All faculty hold appropriate/required licensure and/or certifications in their respective discipline, maintain their clinical excellence, and are recognized for their expertise among their faculty/practice colleagues.

FACILITIES

The Department of Health, Exercise and Rehabilitative Sciences is located on the Winona campus in Memorial Hall. The Department of Nursing provides two locations for undergraduate nursing: Stark Hall on the Winona campus and the WSU-Rochester Center in Rochester, MN. The Generic Option is offered at both sites, and the RN-to-BS Option is delivered primarily from the Rochester site. The Master's Program in Nursing is located at the WSU-Rochester Center. (See the *Graduate Catalog* for information on the Master's Program in Nursing.)

UNDERGRADUATE DEGREES OFFERED BY THE COLLEGE OF NURSING AND HEALTH SCIENCES

Bachelor of Science	Non-Teaching Major	Teaching Major
Health Promotion:		
Community Health Option	X	
Health Promotion:		
School Health Option		X
Exercise and Rehabilitative Science		
Athletic Training Option	X	
Cardiopulmonary Rehabilitation Option	X	
Exercise Science Option	X	
Movement Science Option	X	
Nursing		
Nursing - Generic Option	X	
Nursing - RN-to-BS Option	X	
RN-to-MS Professional Pathway	X	

GRADUATE DEGREES OFFERED BY THE COLLEGE OF NURSING AND HEALTH SCIENCES

Master of Science - Advanced Practice Nursing

Students choose from four focus areas:

- Nursing Administrator
- Nursing Educator
- Clinical Nurse Specialist
- Adult or Family Nurse Practitioner

Note: All focus areas offer a Post-Master's Degree Certificate.

See the *Graduate Catalog* for program descriptions and other pertinent information.

COLLEGE OF SCIENCE AND ENGINEERING

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

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 and Bachelor of Science 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.

DEPARTMENTS

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

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.
- **Large River Studies Center (LRSC):** LRSC provides students with the opportunity to conduct research on large river ecosystems and associated bodies of water. 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 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; the center then makes the data available to governmental agencies throughout the southeastern part of the state. It is administered through the Geoscience Department.

INTERNSHIPS

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

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.

UNDERGRADUATE DEGREES OFFERED BY THE COLLEGE OF SCIENCE AND ENGINEERING

Bachelor of Arts	Major	Minor
Biology		X
Geoscience: Geoscience Option	X	
Mathematics	X	X
Bachelor of Science		
Airway Science Aviation		X
Biology		
Allied Health Option	X	
Cell and Molecular Option	X	
Ecology Option	X	
Environmental Science Option	X	
Biochemistry		X
Chemistry		X
Option A	X	
Option B	X	
Environmental Science Option	X	
Physical Science (teaching)	X	
Chemistry (teaching)	X	
Composite Materials Engineering		
Chemical Option	X	
Mechanical Option	X	
Computer Science		X
Computer Science Option	X	
Applied Computer Science Option		
Bioinformatics Track	X	
Computer Information Systems Track	X	
Geographic Information Technology Track	X	
Human Computer Interaction Track	X	
Cytotechnology	X	
Earth Science (teaching)	X	
Electronics		X
Geoscience	X	X
Environmental Science Option	X	
Geology Option	X	
Life Science (teaching)	X	
Mathematics Education Option†		X
Mathematics: Secondary (teaching)	X	
Mathematics: Statistics Option	X	X
Medical Technology	X	
Physics		X
Option I - Physics	X	
Option II - Electronics	X	
Physical Science (teaching)	X	
Physics (teaching)	X	
Polymer Chemistry		X

†The State of Minnesota no longer issues teaching licenses for Bachelor of Science minors.

ACCOUNTING

Somsen Hall, Room 323A (507-457-5860)
Frederic Ihrke (Chairperson)

FACULTY

J. Lawrence Bergin, Professor; B.S., M.B.A., Northeastern University; 1981 -
James F. Hurley, Associate Professor; B.S., M.A., Ph.D., University of Nebraska; 1983 -
Frederic Ihrke, Professor; B.S., Bemidji State University; M.B.T., University of Minnesota-Twin Cities; J.D., William Mitchell College of Law; Licensed Certified Public Accountant (CPA) Minnesota; 1981 -
Gloria McVay, Associate Professor; B.S., M.B.A., Minnesota State University-Mankato; Ph.D., University of Kentucky; 2000 -
William Ortega, Associate Professor; B.B.A., University of Iowa; M.B.A., Indiana University; Ph.D., Florida State University; Certified Management Accountant (CMA); 2003 -
Larry Sallee, Professor; 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; B.B.A., Wisconsin State University-Eau Claire; M.S., Arizona State University; Licensed Certified Public Accountant (CPA), Arizona, Minnesota, Wisconsin, 1974-80; 1981 -
SungWook Yoon, Assistant Professor, B.B.A., M.B.A., SungKyunKwan University-Seoul, Korea; M.S., Ph. D., University of Colorado at Boulder; 2004 -

PURPOSE

The 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 (P/NC) COURSES

Except for internships and practica, students must take all courses in the Accounting major and minor on a grade-only basis. The P/NC option is available to non-majors unless otherwise noted in the accounting course descriptions. Courses offered on a pass/no credit only or grade only basis are so designated in the course descriptions.

GRADUATION REQUIREMENTS

For a checklist of the University's graduation requirements, see page 22. Specific requirements for accounting majors/minors are as follows:

1. Complete all coursework and satisfy all other WSU requirements for a B.S. major 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 under B.S. Major-Accounting.
4. At either the beginning or end of the last semester of undergraduate work, have a minimum of a 2.50 overall GPA and a 2.50 GPA in ACCT courses.
5. Complete a minimum of 50% of the College of Business credits required for the accounting major at WSU.
6. Sixty-four non-business credits are required for the Accounting major. Of the math, statistics, and economics courses required for the major, 6 credits of math and statistics and 9 credits of economics can be counted toward the requirement for 64 non-business credits.

UNIVERSITY STUDIES FLAG REQUIREMENTS (12 S.H.)

Students may use Flag courses to satisfy both University Studies and major requirements; flag courses will usually be in the student's major or minor program. University Studies Flag requirements are as follows: Oral Flag(3 S.H.), Math/Critical Analysis Flag(3 S.H.), and Writing Flag-6 S.H. The Department of Accounting offers the following Flag course in the University Studies Program:

Writing Flag 📖 ACCT 471 Auditing (3)

For Accounting majors and minors, Flag courses are identified in the lists of required courses and electives in this section.

ROCHESTER CENTER

The department's major is available through the 2+2 Program at the Rochester Center. See page 38 for the articulation of the 2+2 in Accounting program.

B.S. MAJOR - ACCOUNTING (ACCT)

78-79 S.H. (No Minor Required)

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

REQUIRED COURSES (69-70 S.H.)

Accounting - ACCT (30 S.H.)

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

- 📖 BUSA 220 Business Statistics (3)
- BUSA 320 Intermediate Business Statistics (3)
- BUSA 301 Business Law I (3)
- BUSA 311 Business Law II (3)
- MIS 362 Management Informational Systems (3)
- 📖 MGMT 325 Organizational Dynamics (3)
- 📖 MGMT 495 Strategic Management (3)
- OM 334 Operations Management (3)

Marketing (3 S.H.)

- MKTG 300 Principles of Marketing (3)

Mathematics (3-4 S.H.)

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

ELECTIVES (9 S.H.)

Any 300- or 400- level course from the Economics and Finance department (3)
300- or 400-Level ACCT electives (6)

Note: Students should be aware that the following courses also satisfy Flag requirements:

- 📖 ECON 303 Intermediate Macroeconomics (3)
- 📖 ECON 304 Money and Banking (3)
- 📖 FIN 335 Forecasting Methods (3)
- 📖 FIN 421 Institutional Investment and Financial Markets (3)
- 📖 MGMT 317 Management of Human Resources (3)

* "Additional Requirements" course as defined in Item 3, page 19.

B.S. MINOR - ACCOUNTING (ACCT)

21 S.H.

REQUIRED COURSES (18 S.H.)

Accounting - ACCT

- 211 Financial Accounting Principles (3)
- 212 Managerial Accounting Principles (3)
- 220 Accounting Computer Applications (3)
- 311 Intermediate Accounting I (3)
- 421 Introduction to Taxation (3)

Business Administration - BUSA

- 291 Legal Environment of Business (3) OR
- 301 Business Law I (3)

ELECTIVES (3 S.H.)

Any accounting (ACCT) course

COURSE DESCRIPTIONS (ACCT)

211 - Financial Accounting Principles (3 S.H.)

The 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.)

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 I (3 S.H.)

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). Prerequisites: ACCT 212, ACCT 220, or ACCT 212 and concurrent enrollment in ACCT 220. Not open to students in their first year of college study.

312 - Intermediate Accounting II (3 S.H.)

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.)

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 or ACCT 212 and MIS 362.

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

This course is designed to analyze the funds 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 311.

361 - Intermediate Managerial/Cost Accounting (3 S.H.)

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 (1-4 S.H.)

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 (1-7 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 (1-3 S.H.)

Prerequisite: minimum 2.50 GPA and instructor's permission. The student should have substantially completed the College of Business core courses, ACCT 311 (Intermediate Accounting I) 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.)

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

414 - Advanced Financial Accounting Topics (3 S.H.)

A study of selected financial accounting topics including SEC regulations, bankruptcy, trusts and estates, reporting for segments and interim financial periods, and branch accounting. Prerequisite: ACCT 312. Not offered every year.

416 - Accounting Theory (3 S.H.)

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 literature relating to accounting theory and principles during the past 100 years. Prerequisite: ACCT 312. Not offered every year.

421 - Introduction to Taxation (3 S.H.)

A study of the history of taxation, the formation and application of federal tax law, and the basic methods and procedures of tax research. The course emphasizes the individual income tax, but also introduces the student to the taxes applicable to other entities. Tax preparation using the computer is also a significant component of the course. Prerequisite: ACCT 212 and ECON 202. Grade only.

422 - Advanced Taxation (3 S.H.)

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.)

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.)

This course focuses on the complex tax issues involved in transnational transactions. It addresses major tax treaties, jurisdictional issues, problems of tracing income flow, fluctuations in currency valuations, and other pertinent subject matter. Prerequisite: ECON 202. Not offered every year.

462 - Advanced Managerial/Cost Accounting (3 S.H.)

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 (3 S.H.)

This course provides an introduction to financial statement auditing and an exposure to internal, governmental, operational, and fraud auditing. Topics include audit evidence, audit standards, audit procedures, professional ethics, fraud detection, and audit reports. Current issues facing the auditing profession are addressed. Prerequisites: ACCT 312, BUSA 220, and ACCT 330 (past or concurrent enrollment).

472 - Advanced Auditing (3 S.H.)

This course is primarily for students planning to pursue careers in auditing and take the CPA or CIA exam. Additional exposure to fraud detection and audit procedures is provided. Other topics include statistical sampling methods, legal liability, professional responsibilities, audit reporting topics, and other assurance services offered by CPA firms. Prerequisite: ACCT 471. Not offered every year.

490 - Independent Studies in Accounting (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.

ART

Watkins Hall, Room 204 (507-457-5395)

www.winona.edu/art

Dominic Ricciotti (Chairperson)

FACULTY

Rodney Nowosielski, Assistant Professor; B.F.A., Kendall College of Art and Design; M.F.A., Rochester Institute of Technology; 2002 - *Seho Park*, Professor; M.A.T., Whitworth College; M.F.A., Ph.D., University of Minnesota-Twin Cities; 1988 -

Anne Scott Plummer, Professor; B.F.A., Rhode Island School of Design; M.F.A., Claremont Graduate School; 1990 -

Dominic Ricciotti, Professor; B.F.A., Washington University in 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 -

PURPOSE

The Department of Art offers the Bachelor of Arts degree with options in Studio Art or Graphic Design and the Bachelor of Science degree in Art Education for K-12 teachers. Through a combination of studio and art history courses, art majors build cognitive skills and develop critical thinking, while engaging in the inherently creative activities of the art process. Among the skills majors acquire are acute visual perception, creative problem-solving, and critical thinking, which complement the objectives of a broad, liberal arts education. Majors and minors study the history of art, focusing on the great achievements of the human spirit, both past and present. Studio majors develop expertise in specific media areas such as painting, drawing, sculpture, ceramics, or printmaking. Graphic designers use their laptop computers and graphic software for print and web-based graphic communication. In addition to their classes taken in the Department of Education, Art Education majors pursue a broad range of experiences in a variety of media to prepare them for K-12 Minnesota teacher certification.

During their first two years, students complete the required series of foundation courses. At the advanced level, the studio classes in specialized media 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 Paul 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.

CAREER OPPORTUNITIES

Grounded in the liberal arts, the art curriculum prepares graduates with skills that are applicable to a variety of career paths. Some studio majors continue their education, seeking advanced degrees to become professional artists and college level educators. Others find employment in art centers, galleries, and related fields. Graphic design graduates pursue careers in business and in the public and nonprofit sectors—designing and developing visual strategies for creating marketing materials, business presentations, publications, websites, and more. Teaching majors, prepared for K-12 licensure, are employed by school districts throughout the state of Minnesota and the region.

ART STUDENT HANDBOOK

The *Art Student Handbook*, which supports the advising process, contains information vital to the successful study of art at WSU. Among other items, it includes suggested course registration programs for each of the three art degree programs/options for each semester leading to graduation, course prerequisites, the Junior Portfolio Review, and Senior Exhibitions. Students should request the handbook from their advisor or the Art Department office.

FALL ORIENTATION MEETING

All new entering students, including transfer students, are expected to attend this very important meeting held annually. New students get acquainted with their peers, teachers, and advisors and learn more about the material covered in the *Art Student Handbook* and in this catalog.

ADVISING

The department's advising program is designed to ensure that majors are properly fulfilling the requirements of their degree programs in addition to other departmental obligations. Art majors, therefore, meet regularly with their assigned advisors:

- Professors Plummer and Schmidlapp advise studio majors and minors.
- Professor Warwick advises studio majors and art history minors.
- Professor Ricciotti, the department chairperson, advises all lower-division graphic design students.
- Professor Nowosielski advises upper-division graphic design students.
- Professor Park advises all art education majors.

PRIORITY REGISTRATION

Because of limited space and the great demand for art classes, registration for virtually all art courses is by permission only. Just prior to the university online registration period each semester, the Art Department holds Priority Registration meetings that all advisors, majors, and minors attend. At that time, with the advisor's approval, the student is granted electronic permission to register for art classes when his/her registration "window" opens. Minors meet with an advisor as indicated above. First-year majors and minors and first-semester sophomore majors and minors are limited to one studio class each semester in addition to art history. Second-semester sophomores may take two studio classes in addition to art history.

ART SCHOLARSHIPS

The Art Department awards a number of scholarships to majors in all three of its degree programs each year. The scholarships include the Ruth Severud Fish, E. L. King, Thomas E. Mauszycki, Floretta Murray, Dorothy and Mo Weber, Max Weber, and Winona National Bank awards. Some of these awards require minimum GPAs; the Fish, King, and Murray awards are limited to teaching majors. First-year students, sophomores, juniors, and seniors are eligible. Award amounts range from \$400 to \$1000, and most are renewable.

The Art Department faculty makes the awards on the basis of a portfolio review. Students who meet minimum eligibility requirements are urged to apply. Successful applicants may receive more than one award.

TRANSFER STUDENTS

Art majors transferring from other institutions must complete a minimum of 15 semester credit hours in art in residence at WSU at the upper division (300/400-level classes).

GRADUATION REQUIREMENTS

For a checklist of the University's graduation requirements, see page 22. Specific requirements for art majors/minors are as follows:

- 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.

* "Additional Requirements" course as defined in Item 3, page 19.

JUNIOR PORTFOLIO REVIEW

During their third year of study, art majors in all three programs are required to submit for review a group of works completed at that point. This provides the art faculty with a means of assessing the effectiveness of the curriculum. Secondly, it gives majors the benefits of an all-faculty evaluation irrespective of performance in individual classes, thus guiding them in their progress during their senior year. For more specific information about this requirement, majors should attend the orientation meeting in the fall of each year (see page 51) and consult with their advisors.

SENIOR EXHIBITIONS

Capstone exhibitions featuring the accomplishments of graduating seniors in all three programs are held in Watkins and Weber galleries each year. Several shows are devoted to works of all graduating seniors, while others highlight the efforts of students chosen competitively by the faculty on the basis of superior achievement. The latter exhibitions consist of two- or three-person shows, allowing participants to show a larger number of works than in the all-senior shows.

PASS/NO CREDIT (P/NC) COURSES

Except for internships and practica, students must take all courses in their major, minor, concentrations, and licensures on a grade-only basis. The P/NC option is available to students who are not art majors or minors; these students may elect the P/NC option for all 100-level art courses and for other courses as specified in the course descriptions. Courses offered on a pass/no credit-only or grade-only basis are so designated in the course descriptions. (All prerequisites must be met before a student enrolls in a particular course.)

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Art Department offers the following flag courses in the University Studies Program (see "Overview of University Studies Components" on page 19):

FLAG

Oral

ART 444	Senior Seminar (3)
ART 460	Graphic Design Capstone (3)

Math/Critical Analysis

ART 360	Graphic Design III (3)
ART 417	Advanced Painting (3)
ART 418	Advance Drawing II (3)
ART 420	Ceramics II (3)
ART 428	Advanced Sculpture (3)

Writing

ART 365	Graphic Design IV (3)
ART 435	Italian Renaissance Art (3)
ART 437	Nineteenth Century Art (3)
ART 438	Early Twentieth Century Art (3)
ART 439	Later Twentieth Century Art (3)

Flag courses that can be used to satisfy Art major/minor requirements are identified in the lists of required courses and electives in this section.



B.A. MAJOR - STUDIO ART OPTION (ARTS)

48 S.H. (No Minor Required)

PURPOSE

The Studio Art Option offers training in the fine arts-painting, sculpture, ceramics, and printmaking-within the context of a broadly based liberal arts education.

REQUIRED ART COURSES (30 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 Twentieth Century Art (3)
 444	Senior Seminar (3)

ART HISTORY ELECTIVES (3-9 S.H.)





One 400-level art history course beyond the required ART 439 (3 S.H.):

 435	Italian Renaissance (3) OR
 437	Nineteenth Century Art (3) OR
 438	Early Twentieth Century Art (3)

Note: Majors may take any two art history classes in place of one studio media sequence (see below). These two classes must be above the 100-level and exclusive of the required ART 439 and the chosen upper-division art history elective (6 S.H.)

STUDIO ELECTIVES (9-15 S.H.)

Two-course sequences in two areas of concentration as follows (12 S.H.):

Painting:	317 (3) and 417 (3)  OR
Drawing:	318 (3) and 418 (3)  OR
Ceramics:	320 (3) and 420 (3)  OR
Sculpture:	328 (3) and 428 (3) 
Printmaking:	330 (3) and 430 (3)

Art History: As noted above, any two art history courses (above the 100-level) in addition to ART 439 and the required art history elective course (6 S.H.) may be substituted for a studio sequence.

One additional upper-division studio elective (3 S.H.): This may be continued study in a sequence area, or it may be in a different medium. Majors also have the option of choosing a single four-course sequence (12 S.H.) in a single medium, with the permission of their advisor.

B. A. MAJOR - GRAPHIC DESIGN OPTION (ARTG)

66 total S.H. (No Minor Required)

PURPOSE

The Graphic Design Option is an interdisciplinary program based in the Art Department. Coursework is also required in the Mass Communication, Marketing, Communication Studies, and Computer Science departments. Building on a foundation in design, drawing, studio arts, and art history, students work with current graphic design software, gaining experience in print design and web design. The capstone experience includes required participation in the Senior Graphic Design Exhibition and a possible graphic design internship with a regional business.

Note: Graphic design students are required to use Macintosh laptop computers.



ADMISSION TO THE PROGRAM

Students are encouraged to declare the Graphic Design Option as their major upon entering WSU; the application review process takes place each fall semester. Formal admission to the program requires that students:

1. Complete ART 114 (2-D Design) and ART 118 (Drawing I).
2. Complete an application form.
3. Submit a portfolio of examples along with the application form.

REQUIRED CORE COURSES (66 S.H.)

Art (45 S.H.)

ART 114	2-D Design (3)
ART 115	3-D Design (3)
ART 118	Drawing I (3)
ART 218	Drawing II (3)
ART 221	Art History I (3)
ART 222	Art History II (3)
ART 260	Graphic Design I (3)
ART 265	Graphic Design II (3)
 ART 360	Graphic Design III (3)
 ART 365	Graphic Design IV (3)

ART 439 Later Twentieth Century Art (3)

ART 460 Graphic Design Capstone (3)

Art Studio Elective (3 S.H.)

ART 217 Painting I (3) OR

ART 330 Printmaking I (3)

Internship (3 S.H.)

ART 399 Graphic Design Internship (3)

Note: Majors who are unable to obtain an internship must substitute either:

MGMT 315 Principles of Management (3) OR

MGMT 325 Organization Dynamics (3)

Mass Communication (9 S.H.)

MCOM 110 Visual Communication (3)

MCOM 215 Photocommunication (3)

MCOM 260 Advertising (3)

Marketing (9 S.H.)

MKTG 300 Principles of Marketing (no prerequisites required) AND two of the following:

MKGT 323 Consumer Behavior (3) OR

MKGT 325 Professional Selling (3) OR

MKGT 339 Internet Marketing (3)

Communication Studies (3 S.H.)

CMST 266 Professional Communication Skills (3)

ELECTIVE (3 S.H.)

* ENG 120 Introduction to Literature (3) OR

ENG 121 Major British and American Fiction (3) OR

ENG 125 Masterpieces of Short Fiction (3) OR

ENG 131 Masterpieces of American Fiction (3)

B. S. MAJOR - ART (Teaching) (ARTT)

124 total S.H. (including 48 S.H. of University Studies) No Minor Required

PURPOSE

The teaching program prepares graduates for Minnesota certification in art (K-12) and is offered in conjunction with the College of Education. Teaching majors must take all courses in the art (K-12) Professional Education Sequence in addition to courses in the content area. For an up-to-date list of the Professional Education courses, majors should consult the *Field Experience Handbook for the WSU Teacher Education Program* and the *Teacher Education Program Guide*. Information is also available on the Education Advising website at www.winona.edu/education/advising.

REQUIRED UNIVERSITY STUDIES COURSES (48 S.H.)

Basic Skills (13 S.H.)

ENG 111 (4), CMST 191 (3), and MATH (3)

Physical Development and Wellness (3) may be fulfilled by HERS 204 (3)

Arts and Sciences Core (23 S.H.)

Humanities (6) fulfilled by classes other than ART 221 and ART 222

Natural Science (7) including one lab

Social Science (7) fulfilled by SPED 400 (3) and EDUC 305 (4)

Fine and Performing Arts (3) fulfilled by a class other than ART 110

Unity and Diversity (12 S.H.)

Critical Analysis (3); Science and Social Policy (3); Global or Multicultural

Perspectives (3) fulfilled by EDUC 308; Contemporary Citizenship or Democratic Institutions (3)

PROFESSIONAL EDUCATION SEQUENCE (25 S.H.)

EDUC 312 Instructional Planning and Assessment: Secondary (3)

EDUC 429 Secondary Reading and Teaching Strategies (4)

EDUC 449 Middle Level Philosophy, Organization and Planning (3)

EDUC 459 The Professional Educator (3)

EDUC 460 Student Teaching—Elementary Education with Early Childhood Emphasis (12)

REQUIRED CORE ART COURSES (45 S.H.)

114 2-D Design (3)

115 3-D Design (3)

118 Drawing I (3)

120 Intro to Ceramics (3) OR 320 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)

ART 439 Later Twentieth Century Art (3)

ART 444 Senior Seminar (3)

ART ELECTIVES (6 S.H.)

Choose one of the following two-course sequences (6 S.H.):

Painting: 317 (3) and 417 (3) OR

Drawing: 318 (3) and 418 (3) OR

Ceramics: 320 (3) and 420 (3) OR

Sculpture: 328 (3) and 428 (3) OR

Printmaking: 330 (3) and 430 (3)

B.A. MINOR - STUDIO ART (ARTS)

21 S.H.

REQUIRED ART COURSES (12 S.H.)

109 Introduction to Art (3)

114 2-D Design (3)

115 3-D Design (3)

118 Drawing I (3)

ART ELECTIVES (9 S.H.)

With the exception of graphic design courses, students pursuing the minor may choose any art or art history course above ART 110 to complete the nine semester hours, provided prerequisites are met.

B. A. MINOR - HISTORY OF ART (ARTH)

24 S.H.

The history of art minor is a program of study with an emphasis on the major art trends and movements of the modern and contemporary periods in 19th and 20th century Europe and America. Courses explore the visual culture that helped shape our contemporary world; they also acquaint students with the critical visual tools required to decipher the images we see everyday.

REQUIRED ART COURSES (12 S.H.)

221 Art History (3)

222 Art History II (3)

224 American Art (3)

ART 439 Later Twentieth Century Art (3)

ELECTIVES (12 S.H.)

At least two of the following three courses (6-9 S.H.)

ART 435 Italian Renaissance Art (3)

ART 437 Nineteenth Century Art (3)

ART 438 Early Twentieth Century Art (3)

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

ART 433 Independent Study (in art history) (3)

No more than one of the following studio courses:

ART 114 2-D Design (3)

ART 115 3-D Design (3)

ART 118 Drawing I (3)

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

ENG 223 Classical Mythology (3)

ENG 224 The Bible as Literature (3)

* HIST 120 Western Civilization to 1500 (3)

* HIST 121 Western Civilization 1500-1815 (3)

* HIST 122 Western Civilization 1815 to Present (3)

HIST 125 Classical History (3)

* HIST 150 United States History to 1865 (3)

* HIST 151 United States History Since 1865 (3)

COURSE DESCRIPTIONS (ART)

109 - Introduction to Art (3 S.H.)

Introductory course for the non-major that investigates the forms, expressive languages, functions and contexts of the visual arts. Non-chronological, thematic presentations explore cultural values and differences involving Western and some non-Western regions along with issues of representing gender, race, and ethnicity.

110 - Experiencing Art (3 S.H.)

Introductory course for the non-major that includes an experiential, art-making component. Elements of art and principles of design, materials and techniques, and issues of content and expression are investigated in a non-chronological and contemporary context.

114 - 2-D Design (3 S.H.)

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

* "Additional Requirements" course as defined in Item 3, page 19.

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.)

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. May include work from the nude model.

120 - Introduction to Ceramics (3 S.H.)

An introduction to basic ceramic techniques for art minors, B. S. art teaching majors, and non-art majors.

128 - Introduction to Sculpture (3 S.H.)

An introduction to basic sculpture techniques for art minors and non-art majors.

130 - Introduction to Printmaking (3 S.H.)

An introduction to basic printmaking techniques for art minors and non-art majors.

135 - Introduction to Watercolor (3 S.H.)

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.)

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.)

Continued experience in drawing in a variety of media with emphasis upon thematic problems and on the human figure, including the nude model. Prerequisite: ART 118. Grade only.

221 - Art History I (3 S.H.)

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.)

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 artist's contributions to the history of art. A research paper is required. Core disciplinary course for women's and gender studies minor. Grade only.

260 - Graphic Design I (3 S.H.)

An introduction to current concepts and practices in graphic design. Fundamental skills, practice, and creative thinking are emphasized in a series of exercises used to build visual responses to problems. Design process, illustration, Gestalt principles, as well as rules for page layout are examined. Integrated use of Macintosh computer and graphics software. Prerequisites: ART 114, and ART 218. Grade only.

265 - Graphic Design II (3 S.H.)

The exploration of typographic form and theory for graphic designers. Emphasis on historical and current typographic usages including computer-generated letter forms, creating typefaces and using letterforms in layout for posters, signage, symbol design, and logos. Prerequisite: ART 260. 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.

317 - Painting II (3 S.H.)

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, including 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.)

Introduction to ceramics with an emphasis on clay materials and on hand building and wheel throwing techniques. Vessel and sculptural concepts are explored with the aid of slides, lectures, demonstrations, and critiques. Prerequisite: ART 115.

328 - Sculpture II (3 S.H.)

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.)

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.

360 - Graphic Design III (3 S.H.)

An introduction to basic digital imaging practices emphasizing fundamental skills, concepts, and creative thinking in a series of problem solving exercises. Student explorations will involve the integration of digital-imaging software with photographic capture, manipulation, enhancement, and application of images with type and page layout. Prerequisite: ART 265. Grade only.

365 - Graphic Design IV (3 S.H.)

An introduction to basic digital techniques emphasizing fundamental skills, concepts, and creative processes as applied to interactive media. Student explorations will involve the integration of WYSIWYG software, incorporating digital imagery, scripting, typography, and other design elements of interactive media as well as the architectural structures for information. Prerequisite: ART 360. 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.

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. Grade only. May be repeated to a maximum of 9 credits.

418 - Advanced Drawing II (3 S.H.)

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.)

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. Grade only. May be repeated to a maximum of 9 credits.

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. Grade only. May be repeated to a maximum of 9 credits.

430 - Printmaking II (3 S.H.)

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.)

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 rise of the bourgeoisie and 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 along with some of the art historical methodologies used in analyzing these works. 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 is placed 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. Students will also examine the various critical and methodological approaches taken in the study of late 20th century art. A research paper is required. Prerequisite: ART 222. Grade only.

444 - Senior Art Seminar (3 S.H.)

Students present their concurrent studio projects for critique and also deliver slide presentations. Other topics include readings and discussion of art criticism and theory and portfolio preparation. Studio projects include photographing artwork and preparing and installing work for the Senior Exhibitions. The Senior Exhibition(s) constitutes the Art major's Capstone experience. Prerequisite: Senior standing, B.A. and B.S. majors.

460 - Graphic Design Capstone (3 S.H.)

A continued exploration of advanced graphic design practices with primary emphasis on design theories of conceptual visualization for presentation and self-promotion. Through research, discussions, oral presentations, and practical explorations, students will prepare and finalize solutions for corporate identity, package, and label design. Students will also study readings in design criticism and semiotics, including recent or emerging design trends. This is the final step in the Graphic Design curriculum whereby students create portfolio pieces for their Senior Exhibition(s), which constitutes the department's capstone experience. Prerequisite: ART 365. Grade only.

BIOLOGY

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

<http://bio.winona.edu>

Edward Thompson (Chairperson), Michael Delong (Director of Large River Studies Center), Frances Ragsdale (Director of Medical Technology), Edward Thompson (Director of Cytotechnology)

FACULTY

Kimberly M. Bates, Associate 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 - Bruno Borsari, Assistant Professor; D.Ag.Sci., University of Bologna (Italy); Ph.D., University of New Orleans; 2005 - Emmanuel Brako, Professor; B.V.M., University of Nairobi; B.S., Tuskegee University; M.S., Ph.D., Louisiana State University and A & M College; 1989 - Michael D. Delong, Professor; B.S., University of Southern Mississippi; M.S., Memphis State University (TN); Ph.D., University of Idaho-Moscow; 1992 - David Essar, Professor; B.S., Ferris State College (MI); M.S., Ph.D., University of Iowa; 1992 - Kimberly J. Evenson, Professor; B.S., M.S., North Dakota State University, Fargo; Ph.D., University of Minnesota-Twin Cities; 1995 - Neal Mundahl, Professor; B.A., Winona State University; M.S., Michigan Technological University; Ph.D., Miami University (Ohio); 1989 - Frances Ragsdale, 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, Professor; B.S., Michigan State University; M.S., Central Michigan University, Mt. Pleasant; Ph.D., University of Oklahoma, Norman; 1992 - Edward Thompson, Professor; B.A., Macalester College, St. Paul; Ph.D., Medical College of Wisconsin, Milwaukee; 1992 - Edward Wilson, Assistant Professor; B.A., Luther College, Decorah, IA; M.S., Ph.D., Iowa State University, Ames; 2004 -

PROGRAMS AND CAREER OPPORTUNITIES

Majors

The Biology Department offers a biology major in which a WSU student may select one of five options: allied health, cell and molecular, ecology, environmental science, or life science (teaching). 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 placement in the rapidly expanding bio-industrial and allied health areas or other more traditional areas such as wildlife and environmental management. The life science major prepares students for teaching at the middle school and high school levels.

The Biology Department also offers majors in medical technology and cytotechnology. (See separate program listings under "Medical Technology" and "Cytotechnology" on pages 148 and 80, respectively.) Students interested in the medical technology and cytotechnology majors should contact the Director of Medical Technology or the Director of Cytotechnology as soon as possible after arriving on campus.

Minor

For students majoring in other fields, the Biology Department offers a minor (38 S.H.), which includes courses in biology, chemistry, and mathematics. This minor is designed to supplement majors in all fields of study at Winona State University.

Pre-Professional Sequences

The Biology Department sponsors seven Pre-Professional Sequences. These are not degree programs (i.e., major or minor) at WSU; rather these programs are designed to prepare students to pursue an advanced degree at another college or university.

Pre-Dentistry
Pre-Medicine (Allopathic and Osteopathic)
Pre-Optometry
Pre-Physician Assistant
Pre-Physical Therapy
Pre-Podiatry
Pre-Veterinary Medicine

For the specific program requirements, see the "Pre-Professional Sequences" section in this catalog.

GENERAL PROGRAM REQUIREMENTS

Students in all biology majors start with a core set of classes, which includes Basics of Life, Organismal Diversity, General Ecology, Cell Biology, and Genetics. They also take Principles of Chemistry, Organic Chemistry, and an appropriate mathematics class. After these courses are completed, students begin to take coursework that is specific for their chosen options. A year of physics and a capstone research project are required of students majoring in all biology options.

The requirements for the various biology options are not necessarily identical with the requirements for admission to graduate or professional schools. For example, if students plan to attend medical, dental, veterinary, physical therapy, or physician assistant schools or if students plan to pursue a doctorate in the sciences, they should expect to take additional courses in calculus, biochemistry, and molecular biology. Internships are encouraged.

For the qualified and interested student, the Biology Department sponsors an Honors Program (described below), which allows for a distinguished baccalaureate degree. The Biology Department is also home for the Gamma Delta Chapter of the Beta Beta Beta Biological Honor Society. More information about the Honors Program and "Tri-Beta" is available on the Biology Department website (<http://bio.winona.edu>).

As noted above, every student graduating with a degree in a biology option is required to complete a capstone research experience. This research must be supervised by a member of the biology faculty or someone approved by the Biology Department. Students are encouraged to meet with their advisors to discuss research projects and to identify a research advisor during the second semester of their junior year. Additional information about this capstone requirement is available on the Biology Department website.

PASS/NO CREDIT (P/NC) COURSES

BIOL 109, 117, 118, 171, 172, 173, and 400 must be taken for letter grade only. Biology majors and minors must take all required and elective courses for letter grades. Non-biology majors can take biology courses other than BIOL 117, 118, 171, 172, 173, or 400 on a P/NC basis. Courses offered on a "pass/no credit only" or "letter grade only" basis are so designated in the course descriptions.

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. Together, the Honors Program and the capstone requirement provide this enhanced opportunity to eligible biology majors.

Student Benefits

Students participating in the Honors in Biology Program will receive a number of benefits which enhance their academic careers and which improve their likelihood of success in the field of biology. These benefits include:

1. The opportunity for extensive "one-on-one" research direction under one or more Biology Department faculty members. The research activity allows students and faculty to become very well acquainted.
2. The opportunity to have faculty members write highly specific and individual letters of recommendation on behalf of the student. These strong, distinctive letters will greatly improve the student's chances of acceptance into various graduate, medical, dental, physical therapy, or other training programs. The letters will also improve students' chances of gaining employment after their college career.
3. The opportunity to practice the process of real biological science. This research opportunity is the mark of a high quality science education at a selective institution.

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

- Have their official transcripts stamped with the words "Graduated with Honors in Biology"
- Have their transcript show the title of their honors thesis
- 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 major (any option)
2. Have completed the biology core sequence (Basics of Life, Organismal Diversity, Ecology, Cell Biology and Genetics) or its equivalent as well as Principles of Chemistry and Organic Chemistry
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

To receive Honors in Biology, students must satisfy the following requirements:

1. Complete the Honors in Biology seminar offered in the spring. Honors students graduating at the end of fall semester may satisfy this requirement by giving a seminar in which they describe their honors research to the department in another venue approved by the Honors Committee.
2. Present their research at an extramural research meeting or symposium.
3. Submit a written honors thesis in an appropriate format and style that is approved by both the research advisor and the Biology Honors Committee.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses, which will usually be in the student's major or minor program, to satisfy both University Studies and major requirements. The Biology Department offers the following flag courses in the University Studies Program:

FLAG**Oral** 🗣️

- BIOL 307 Cell Biology Laboratory (1)
- BIOL 309 Developmental Biology (3)
- BIOL 315 Environmental Biology (3)
- BIOL 409 General Microbiology (4)
- BIOL 423 Ecosystem Ecology (3)
- BIOL 460 General Parasitology (3)
- BIOL 462 Parasitology (4)

Math/Critical Analysis 📖

- BIOL 310 Genetics (3)
- BIOL 499 Student Research (3)

Writing 📝

- BIOL 308 Cell Biology (3)
- BIOL 323 General Physiology (5)
- BIOL 415 Ecology of Large Rivers (4)
- BIOL 431 Molecular Biology Lab (4)
- BIOL 445 Immunology (3)

Flag courses that can be used to satisfy Biology major/minor requirements are identified in the lists of required courses and electives in this section.

B.S. MAJOR BIOLOGY - ALLIED HEALTH OPTION (BIAH)

73 S.H. (No Minor Required)

BIOLOGY CORE COURSES - BIOL (18 S.H.)

- 241 Basics of Life (4)
- 242 Organismal Diversity (4)
- 312 General Ecology (3)
- 📖 308 Cell Biology (3)
- 📖 310 Genetics (3)
- 🗣️ 307 Cell Biology Laboratory (1)

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

ALLIED HEALTH OPTION REQUIREMENTS (9 S.H.)

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

ALLIED HEALTH OPTION ELECTIVES (17 S.H.)

Courses totaling 17 semester hours to be chosen from the biology electives listed on page 59.

BIOLOGY CAPSTONE REQUIREMENT (3 S.H.)

- 📖 BIOL 499 Student Research (3)

OTHER REQUIRED COURSES (26 S.H.)**Chemistry (12 S.H.)**

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

Note: Organic Chemistry 350 and 351 (both must be taken) may be substituted for CHEM 340.

Mathematics (6 S.H.)

- MATH 150 Modeling Using Precalculus and Statistics (3)
- MATH 155 Calculus Based Modeling (3)

Note: MATH 120 (Precalculus) and MATH 160 (Calculus) (both must be taken) may be substituted for MATH 150 and MATH 155.

Physics (8 S.H.)

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

Note: University Physics I and II (*221, *222) (both must be taken) may be substituted for General Physics I and II (201, 202).

B.S. MAJOR BIOLOGY - CELL AND MOLECULAR OPTION (BICM)

71 S.H. (No Minor Required)

Note: When this catalog went to print, the BICM major was undergoing revisions. Please consult the Biology Department chairperson or your academic advisor to be sure you understand the new requirements.

BIOLOGY CORE COURSES - BIOL (18 S.H.)

- 241 Basics of Life (4)
 - 242 Organismal Diversity (4)
 - 312 General Ecology (3)
 - 📖 308 Cell Biology (3)
 - 📖 310 Genetics (3)
 - 🗣️ 307 Cell Biology Laboratory (1)
- Note:** BIOL 241 and 242 should be taken prior to BIOL 312, 307, 308 and 310. BIOL 308 should be taken prior to or concurrently with BIOL 307.

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

- CHEM 400 Chemistry (Biochemistry I) (4)
 - BIOL 430 Molecular Biology (3)
- Two of the six courses listed below (7-8 S.H.):
- 🗣️ BIOL 309 Developmental Biology (3)
 - BIOL 393 Animal Cell Culture (4)
 - BIOL 394 Plant Tissue Culture, Principles and Application (4)
 - 🗣️ BIOL 409 General Microbiology (4)
 - 📖 BIOL 431 Molecular Biology Lab (4)
 - 📖 BIOL 445 Immunology (3)

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

Courses totaling 9-10 semester hours to be chosen from the biology electives listed on page 59.

BIOLOGY CAPSTONE REQUIREMENT (3 S.H.)

- 📖 BIOL 499 Student Research (3)

OTHER REQUIRED COURSES (26 S.H.)**Chemistry (12 S.H.)**

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

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

Mathematics (6 S.H.)

- MATH 150 Modeling Using Precalculus and Statistics (3)
- MATH 155 Calculus Based Modeling (3)

Note: MATH 120 (Precalculus) and MATH 160 (Calculus) (both must be taken) may be substituted for MATH 150 and MATH 155.

Physics (8 S.H.)

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

Note: University Physics I and II (*221, *222) (both must be taken) may be substituted for General Physics I and II (201, 202).

B.S. MAJOR BIOLOGY - ECOLOGY OPTION (BIEC)

71 S.H. (No Minor Required)

BIOLOGY CORE COURSES - BIOL (18 S.H.)

- 241 Basics of Life (4)
 - 242 Organismal Diversity (4)
 - 312 General Ecology (3)
 - 313 General Ecology Laboratory (1)
 - 📖 308 Cell Biology (3)
 - 📖 310 Genetics (3)
- Note:** BIOL 241 and 242 should be taken prior to BIOL 312, 313, 308 and 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 following three groups:

Group A - Organismal/Systematic Ecology

- BIOL 303 Biology of Algae and Fungi (4)
- BIOL 318 Invertebrate Zoology (4)
- BIOL 319 Vertebrate Biology (4)
- BIOL 320 Ornithology (4)
- BIOL 350 Plant Taxonomy (4)
- BIOL 360 Entomology (4)

Group B - Field and Quantitative Techniques

- BIOL 335 Plant Ecology (4)
- 📖 BIOL 415 Ecology of Large Rivers (4)
- BIOL 420 Limnology (4)
- STAT 305 Biometry (3)

Group C - Principles and Processes

- 🗣️ BIOL 315 Environmental Biology (3)
- BIOL 380 Evolution (3)

* "Additional Requirements" course as defined in Item 3, page 19.

- 👉 BIOL 423 Ecosystem Ecology (3)
- BIOL 424 Biogeography (3)
- BIOL 425 Animal Behavior (3)

ECOLOGY OPTION ELECTIVES (13-14 S.H.)

Courses may be chosen from the biology electives listed on page 59. The required and elective ecology option courses must total 24 S.H.

BIOLOGY CAPSTONE REQUIREMENT (3 S.H.)

- 📖 BIOL 499 Student Research (3)

OTHER REQUIRED COURSES (26 S.H.)

Chemistry (12 S.H.)

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

Note: Organic Chemistry 350 and 351 (both must be taken) may be substituted for CHEM 340.

Mathematics (6 S.H.)

- MATH 150 Modeling Using Precalculus and Statistics (3)
- MATH 155 Calculus Based Modeling (3)

Note: Students are encouraged to take Biometry (STAT 305); Calculus I, II (MATH 160, 165) (both must be taken) may be substituted for MATH 150, 155.

Physics (8 S.H.)

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

Note: University Physics I and II (*221, *222) (both must be taken) may be substituted for General Physics I and II (201, 202).

B.S. MAJOR BIOLOGY: ENVIRONMENTAL SCIENCE OPTION (BIES)

124 S.H. (No Minor Required)

Alliance with environmental science options of other departments is given under "Environmental Science" on page 101.

UNIVERSITY STUDIES COURSES (30 S.H.)

A number of courses required by the biology-environmental science option also satisfy requirements of the University Studies Program. Students should consult with their academic advisor for more information.

BIOLOGY CORE COURSES - BIOL (18 S.H.)

- 241 Basics of Life (4)
- 242 Organismal Diversity (4)
- 312 General Ecology (3)
- 313 General Ecology Laboratory (1)
- 📖 308 Cell Biology (3)
- 📖 310 Genetics (3)

Note: BIOL 241 and 242 should be taken prior to BIOL 312, 313, 308 and 310. BIOL 312 should be taken prior to or concurrently with BIOL 313.

ENVIRONMENTAL SCIENCE OPTION REQUIREMENTS - BIOL (12 S.H.)

- 318 Invertebrate Zoology (4) OR BIOL 319 Vertebrate Biology (4)
- 335 Plant Ecology (4) OR BIOL 350 Plant Taxonomy (4)
- 👉 315 Environmental Biology (3)
- 495 Seminar - Environmental Science (1)

ENVIRONMENTAL SCIENCE OPTION ELECTIVES - BIOL (7 S.H.)

Courses totaling 7 semester hours to be chosen from:

- 303 Biology of Algae and Fungi (4)
- 318 Invertebrate Zoology (4)
- 319 Vertebrate Biology (4)
- 320 Ornithology (4)
- 335 Plant Ecology (4)
- 350 Plant Taxonomy (4)
- 360 Entomology (4)
- 380 Evolution (3)
- 405 Fishery Biology (3)
- 👉 409 Microbiology (4)
- 📖 415 Ecology of Large Rivers (4)
- 420 Limnology (4)
- 👉 423 Ecosystem Ecology (3)
- 424 Biogeography (3)
- 425 Animal Behavior (3)

BIOLOGY CAPSTONE REQUIREMENT (3 S.H.)

- 📖 BIOL 499 Student Research (3)

OTHER REQUIRED COURSES (54-55 S.H.)

Chemistry (16 S.H.)

- CHEM *212, *213 Principles of Chemistry I, II (8)
- CHEM 320 Environmental Chemistry (4)
- CHEM 340 Organic Chemistry Survey (4)

Note: Organic Chemistry 350 and 351 (both must be taken) may be substituted for CHEM 340.

Geoscience (12 S.H.)

- * GEOS 120 Dynamic Earth (4)
- * GEOS 130 Earth and Life Through Time (4)
- GEOS 240 Watershed Science (4)

Mathematics (9 S.H.)

- MATH 150 Modeling Using Precalculus and Statistics (3)
- MATH 155 Calculus Based Modeling (3)
- STAT 305 Biometry (3)

Note: Calculus I, II (MATH 160, 165) (both must be taken) may be substituted for MATH 150, 155.

Physics (8 S.H.)

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

Note: University Physics I & II (*221, *222) (both must be taken) may be substituted for General Physics I, II (201, 202).

Two of the following three courses (6 S.H.)

- Environmental Law (3) [**Note:** See advisor for course information.]
- ECON 315 Environmental and Natural Resources (3)
- POLS 340 Environmental Policy (3)

One of the following six courses (3-4 S.H.)

Chemistry

- CHEM 425 Analytical Chemistry I (4)
- CHEM 435 Topics in Environmental Chemistry (3)

Geoscience

- GEOS 310 Non-Renewable Natural Resources (3)
- GEOS 315 Surficial Processes and Soils (4)
- GEOS 325 Environmental Geoscience (3)
- GEOS 420 Applied Hydrogeology (4)

B.S. MAJOR - LIFE SCIENCE (Teaching) (BLST)

128 S.H. (No Minor Required)

Notes:

- The Biology Department, in cooperation with other science departments and the College of Education, is developing a new Board of Teaching-approvable program. Students should be aware that the program described below may change to meet new requirements, and they will need to work closely with their academic advisor to ensure that they can graduate with a Board of Teaching-approved degree.
- 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 Education section in this catalog (page 84). For more information, refer to the *Field Experience Handbook for the WSU Teacher Education Program* and the *Teacher Education Program Guide*.
- Students majoring in Biology Life Science must have both a 2.75 overall GPA and 2.50 GPA or higher in the major.

UNIVERSITY STUDIES COURSES (19 S.H.)

A number of courses required by the life science major also satisfy requirements of the University Studies Program. Students should consult with their academic advisor for more information.

BIOLOGY CORE COURSES - BIOL (18 S.H.)

- 241 Basics of Life (4)
- 242 Organismal Diversity (4)
- 312 General Ecology (3)
- 📖 308 Cell Biology (3)
- 📖 310 Genetics (3)
- 👉 307 Cell Biology Laboratory (1) OR
- 313 Ecology Laboratory (1)

Note: BIOL 241 and 242 should be taken prior to BIOL 312, 313, 307, 308 and 310. BIOL 308 should be taken prior to or concurrently with BIOL 307. BIOL 312 should be taken prior to or concurrently with BIOL 313.

LIFE SCIENCE REQUIREMENTS (6 S.H.)

- 👉 BIOL 315 Environmental Biology (3)

BIOL 499 Student Research (3) (This course also satisfies the biology capstone requirement.)

LIFE SCIENCE ELECTIVES - BIOL (9 S.H.)

At least 9 credits of approved elective courses to be chosen from the biology electives listed below. It is strongly recommended that the elective requirements be fulfilled from the following courses; students should carefully choose electives with the aid of the life science advisor to ensure broad knowledge and skill in biology:

- 201 Human Anatomy (4)
- 303 Biology of Algae and Fungi (4)
- 314 Plant Physiology (4)
- 318 Invertebrate Zoology (4)
- 319 Vertebrate Biology (4)
- 320 Ornithology (4)
- 335 Plant Ecology (4)
- 350 Plant Taxonomy (4)
- 360 Entomology (4)
- 409 General Microbiology (4)
- 441 Comparative Vertebrate Physiology (3)

OTHER REQUIRED COURSES (76 S.H.)

Chemistry (12 S.H.)

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

Note: Organic Chemistry 350 and 351 (both must be taken) may be substituted for CHEM 340.

Education (38 S.H.)

- * EDUC 305 Human Development and Learning: Secondary (4)
- EDUC 308 Human Relations and Student Diversity (3)
- BIOL EDUC 312 Instructional Planning Assessment: Secondary (3)
- EDUC 429 Secondary Reading and Teaching Strategies (4)
- BIOL EDUC 449 Middle Level Philosophy, Organization and Interdisciplinary Planning (3)
- BIOL EDUC 459 The Professional Educator (3)
- BIOL EDUC 465 Student Teaching (12)

Health, Exercise and Rehabilitative Sciences

- HERS 204 Personal and Community Health (3)

Special Education

- SPED 400 Education of Exceptional Children/Youth (3)

Geoscience (8 S.H.)

- * GEOS 120 Dynamic Earth (4)
- * GEOS 130 Earth and Life Through Time (4)

Mathematics (6 S.H.)

- MATH 150 Modeling Using Precalculus and Statistics (3)
- MATH 155 Calculus Based Modeling (3)

Physics (12 S.H.)

- PHYS *201, *202 General Physics I, II (8)
- PHYS 311 Science Teaching Methods (4)

Note: University Physics I and II (221, 222) (both must be taken) may be substituted for General Physics I and II (201, 202).

B.A. MINOR BIOLOGY (BIOL)

38 S.H.

REQUIRED COURSES (23 S.H.)

Mathematics (3 S.H.)

- MATH 150 Modeling Using Precalculus and Statistics (3)

Note: Any higher level math class of at least 3 S.H. may be substituted for MATH 150.

Biology (8 S.H.)

- BIOL 241 Basics of Life (4)
- BIOL 242 Organismal Diversity (4)

Chemistry (12 S.H.)

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

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

ELECTIVES (15 S.H.)

Any biology course (required or elective) that is part of the B.S. Biology major (any option).

BIOLOGY ELECTIVES

The following courses may be used as electives in any biology major option or in the biology minor.

Biology (BIOL)

- 201 Human Anatomy (4)
- 303 Biology of Algae and Fungi (4)
- 307 Cell Biology Laboratory (1)

- 309 Developmental Biology (3)
- 311 Genetics Laboratory (1)
- 313 General Ecology Laboratory (1)
- 314 Plant Physiology (4)
- 315 Environmental Biology (4)
- 318 Invertebrate Zoology (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)
- 380 Evolution (3)
- 393 Animal Cell Culture (4)
- 394 Plant Tissue Culture, Principles and Application (4)
- 400 Individual Problems in Biology (1-3)
- 405 Fishery Biology (3)
- 409 General Microbiology (4)
- 410 Membrane Biology (4)
- 411 Protein Structure and Function (1)
- 415 Ecology of Large Rivers (4)
- 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)
- 441 Comparative Vertebrate Physiology (3)
- 445 Immunology (3)
- 446 Immunology Laboratory (1)
- 460 General Parasitology (3)
- 462 Parasitology (4)
- 470 Histology (4)
- 490 Issues in Biology (3)
- 495 Seminar in Biology (1)
- 496 Undergraduate Thesis (1)
- 499 Student Research (3)

Statistics (STAT)

- 305 Biometry (3)

Health, Exercise and Rehabilitative Sciences (HERS)

- 370 Mechanical Kinesiology (3) (This is an elective for the Allied Health Option only.)

Chemistry (CHEM)

- 400 Biochemistry I (4)
- 401 Biochemistry II (4)

Psychology (PSY)

- 433 Neuroscience (4)

COURSE DESCRIPTIONS (BIOL)

See the Biology Department website (<http://bio.winona.edu>) for the latest course information and a schedule of alternate year courses.

104 - Environment, Society, and Conservation (3 S.H.)

Problems in the wise use of renewable resources with emphasis on human impacts and sustainable living. Lecture only. Offered each semester. (**Note:** If a student has already taken the former BIOL 104, Conservation of the Environment, taking BIOL 104, Environment, Society and Conservation, will be considered a repeat of the former BIOL 104 course.)

109 - Microbes and Society (3 S.H.)

An exploration of the microbial world and how that world influences life on earth. Through lectures, assigned readings, Internet explorations, videotapes, writing assignments, and discussions, this course examines the power and influence of selected microorganisms on history, medicine, economics, the environment, demography, the arts, and human lives. Letter grade only. Offered yearly.

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. Letter 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. Letter grade only. Offered each semester.

171 - Medical Terminology (1 S.H.)

Scientific terminology as it applies to human and veterinary medicine,

* "Additional Requirements" course as defined in Item 3, page 19.

dentistry, and related professions. Topics include the cardiovascular, skeletal, muscular, integumentary, urinary, and reproductive systems. Independent study using tapes and study guide. Letter 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. Letter 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. Letter 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. Lecture and lab. Prerequisites: CHEM 212, CHEM 213, and BIOL 241. 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. Lecture only. Prerequisite: CHEM 208 or CHEM 210. 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. Prerequisite: CHEM 209 or CHEM 210. Offered yearly.

211 - Anatomy and Physiology I (4 S.H.)

First course of a year-long sequence for students in Nursing and Health, Exercise and Rehabilitative Sciences. 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.)

The second course of a year-long sequence for students in Nursing and Health, Exercise and Rehabilitative Science. 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 - Basics of Life (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. Lecture and laboratory. Offered each semester.

242 - Organismal Diversity (4 S.H.)

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. 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, and normal and abnormal functions of all aspects of reproduction. Lecture and discussion. Offered yearly.

303 - Biology of Algae and Fungi (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 according to demand.

307 - Cell Biology Laboratory (1 S.H.)

An experimental study of the cell as a biological unit. Use of histochemistry, spectrophotometry, electrophoresis, centrifugation, organization, and statistics in analysis of ultrastructure, macromolecular organization, and function of cell components in plants and animals. Prerequisites: BIOL 241, BIOL 242, and current or previous enrollment in BIOL 308 and either CHEM 340 or CHEM 350. Offered each semester.

308 - Cell Biology (3 S.H.)

A study of the cell as a biological unit. Emphasizes analysis of ultrastructure, macromolecular organization, and function of cell components in plants and animals. Lecture only. Prerequisites: BIOL 241, BIOL 242, and current or previous enrollment in either CHEM 340 or CHEM 350. Offered each semester.

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 alternate years.

310 - Genetics (3 S.H.)

A survey of the principles of Mendelian, molecular, cytological, population and human genetics. Lecture only. Prerequisites: BIOL 241 and BIOL 242. Offered each semester.

311 - Genetics Laboratory (1 S.H.)

An optional laboratory to accompany Genetics (BIOL 310). Includes experiments from classical, molecular, and cytogenetics. Prerequisites: Concurrent or previous enrollment in BIOL 310. Offered yearly.

312 - General Ecology (3 S.H.)

Relationships between organisms and their environment with an emphasis on fundamental principles. Lecture only. Prerequisites: BIOL 241 and BIOL 242. Offered each semester.

313 - General Ecology Laboratory (1 S.H.)

Laboratory and field studies of fundamental ecological principles. Prerequisites: BIOL 241 and BIOL 242. Corequisite: 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 yearly.

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, laboratory, and field trips. Prerequisite: BIOL 308, BIOL 310, and BIOL 312. Offered alternate years.

318 - Invertebrate Zoology (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 fieldwork. Prerequisites: BIOL 308, BIOL 310, BIOL 312, and CHEM 212 or instructor's permission. Offered alternate years.

323 - General Physiology (5 S.H.)

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. Offered yearly. Prerequisites: BIOL 201, BIOL 241, BIOL 242, CHEM 212, and CHEM 213. Offered alternate years.

327 - Developmental Biology Laboratory (1 S.H.)

An experimental study of the mechanisms of changes that occur during embryonic development. Laboratory. Prerequisites: concurrent or previous enrollment in BIOL 309. Offered alternate years.

333 - Medical Laboratory Techniques (1 S.H.)

Selected students participate in the everyday operation of a hospital medical laboratory. Students must contact their advisor four weeks prior to registration. May be repeated for credit. P/NC only. Offered yearly.

335 - Plant Ecology (4 S.H.)

A study of the interactions of plants with each other and their environment. Emphasis is on applied and theoretical physiological, population, and community ecology. Lecture, fieldwork, 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. Prerequisite: BIOL 308. 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. Lecture, laboratory, and field trips. Prerequisites: BIOL 308, BIOL 310, and BIOL 312. 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. Lecture only. 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, virus production in cultured cells, viability determination, hybridoma technique for monoclonal antibody production, cryopreservation, and cell cloning. Lecture and laboratory. Prerequisites: BIOL 308, and BIOL 310. 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. Prerequisite: BIOL 308. 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. Prerequisites: BIOL 308, BIOL 310, and BIOL 312. Offered each semester.

400 - Individual Problems in Biology I (1-3 S.H.)

An opportunity for the qualified advanced undergraduate student to work independently. May be repeated to a total of 3 S.H. Prerequisite: instructor's permission. Letter 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 fieldwork. 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 fieldwork. 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, but will also include mechanisms of interaction between the cellular, tissue, organ, and organismal levels. 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. Laboratory only. Letter grade only. Prerequisites: BIOL 308, BIOL 310, and CHEM 340. Offered yearly.

444 - Immunochemistry and 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. Lecture and laboratory. Prerequisites: 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. Lecture only. Prerequisites: BIOL 308, BIOL 310, and CHEM 340. Offered yearly.

446 - Immunology Laboratory (1 S.H.)

This course introduces students to the theory and application of modern immunological techniques. Topics include antibody detection methods using precipitation, agglutination, ELISA, western blot analysis, immunofluorescence, and immunoelectrophoresis. Other methods include SDS-PAGE, antigen preparation, protein analysis, T Cell isolation, and differential white blood cell counts. Prerequisite: concurrent or previous enrollment in BIOL 445. Offered yearly.

450, 451 - Medical Technology I and II (12 S.H. each)

Laboratory medicine. Courses and content to be determined by the Director of Laboratories, Educational Coordinator, and staff of the affiliated hospital. Letter grade only. Prerequisite: Medical technology majors with senior standing and instructor's permission. Offered yearly.

452, 453 - Medical Technology III and IV (4 S.H. each)

Laboratory medicine. Courses and content to be determined by the Director of Laboratories, Educational Coordinator, and staff of the affiliated hospital. Letter grade only. Prerequisite: Medical technology majors with senior standing and instructor's permission. 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.

* "Additional Requirements" course as defined in Item 3, page 19.

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 instructor's permission. 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)

Cytotechnology clinical education. Courses and content to be determined by the program director, educational coordinator, and staff of the affiliated clinical education facility. Letter grade only. Prerequisites: Cytotechnology major with senior standing and instructor's permission. Offered yearly.

483, 484 - Cytotechnology III and IV (4 S.H. each)

Cytotechnology clinical education. Courses and content to be determined by the program director, educational coordinator, and staff of the affiliated clinical education facility. Letter grade only. Prerequisites: Cytotechnology major with senior standing and instructor's permission. Offered yearly.

490 - Issues in Biology (3 S.H.)

A course, intended for seniors, that promotes student understanding of

the interrelated concerns of society and biology. Students will explore the social, ethical, and political implications of current issues in biology. Next, students will analyze a specific issue, develop arguments and counter-arguments used by opposing positions, write a formal paper documenting at least two opposing views, and defend a position in a formal debate. Prerequisites: BIOL 308, BIOL 310, BIOL 312 and senior standing or instructor's permission. 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 databases. 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 Honors in Biology 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 (1-3 S.H.)

An opportunity for an advanced biology student to work with a faculty member on an independent research project to fulfill the capstone requirement. 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)
www.winona.edu/businessadministration/
JoEll BJORKE (Chairperson)

FACULTY

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; 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 -
Judy M. Gernander, Professor; B.A., Mankato State University; J.D., University of Minnesota-Twin Cities; 1970 -
Kathryn Ready, Associate Professor; B.A., M.B.A., University of Wisconsin-La Crosse; Ph.D., University of Iowa; 2006 -
Vartan Safarian, Professor; B.S., Pahlavi University; M.S., M.B.A., Indiana University; 1983 -
Daniel Sauers, Associate Professor; B.S., Slippery Rock State University; M.B.A., Ph.D., Florida State University; 2002 -
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 -

PURPOSE

The purpose of the Business Administration programs is to prepare students for careers in management and administration positions in all types of organizations in the private, nonprofit, 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.

GRADUATION REQUIREMENTS

1. Complete 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."
3. Complete 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 concentrations may be taken on a P/NC basis.
5. Complete a minimum of 50% of the business courses in the major at WSU.
6. Sixty-four non-business credits are required for all majors in the department. Of the math, statistics, and economics courses required for the major, 6 credits of math and statistics and 9 credits of economics can be counted toward the requirement for 64 non-business credits.
7. Meet all WSU graduation requirements. For a checklist of the University's graduation requirements, see page 22.

ROCHESTER CENTER

The department's major is available through the 2+2 Program at the Rochester Center. See page 38 for the articulation of the 2+2 in Business Administration program.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Business Administration Department offers the following flag courses in the University Studies Program:

FLAG

Oral

MGMT 495 Strategic Management (3)

Math/Critical Analysis

BUSA 220 Business Statistics (3)

BUSA 320 Intermediate Business Statistics (3)

Writing

MGMT 317 Management of Human Resources (3)

MGMT 325 Organizational Dynamics (3)

Flag courses that can be used to satisfy Business Administration major/minor requirements are identified in the lists of required courses and electives in this section.

B.S. MAJOR - BUSINESS ADMINISTRATION (BA)

66 S.H. (No Minor Required)

UNIVERSITY STUDIES REQUIREMENTS

Mathematics (3 S.H.)

- MATH 110 Finite Mathematics (3) OR
MATH 120 Precalculus (4) OR
MATH 140 Applied Calculus (3)

REQUIRED COURSES (51 S.H.)

Accounting (6 S.H.)

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

Business Administration (12 S.H.)

- ▮ BUSA 220 Business Statistics (3)
BUSA 301 Business Law I (3)
BUSA 311 Business Law II (3)
▮ BUSA 320 Intermediate Business Statistics (3)

Economics and Finance (9 S.H.)

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

Management Information Systems and Operations Management (9 S.H.)

- MIS 202 Microcomputers in Business (3)
MIS 362 Management Information Systems (3)
OM 334 Operations Management (3)

Marketing (3 S.H.)

- MKTG 300 Principles of Marketing (3)

Management (12 S.H.)

- MGMT 315 Principles of Management (3) OR MGMT 455, International Business (3)
▮ MGMT 317 Management of Human Resources (3)
▮ MGMT 325 Organizational Dynamics (3)
▮ MGMT 495 Strategic Management (3)

ELECTIVES (12 S.H.)

Notes: Must be 300+ level courses:

- Courses from the Department of Business Administration (6)
- Courses from the College of Business (6)

B.S. MAJOR - HUMAN RESOURCES MANAGEMENT (HRMT)

66 S.H. (No Minor Required)

UNIVERSITY STUDIES REQUIREMENTS (3 S.H.)

Mathematics (3 S.H.)

- MATH 110 Finite Mathematics (3) OR
MATH 120 Precalculus (4) OR
MATH 140 Applied Calculus (3)

REQUIRED COURSES (51 S.H.)

Accounting (6 S.H.)

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

Business Administration (9 S.H.)

- ▮ BUSA 220 Business Statistics (3)
BUSA 291 Legal Environment of Business (3)
▮ BUSA 320 Intermediate Business Statistics (3)

Economics and Finance (9 S.H.)

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

Management (18 S.H.)

- MGMT 315 Principles of Management (3)
▮ MGMT 317 Management of Human Resources (3)
▮ MGMT 325 Organizational Dynamics (3)
MGMT 417 Compensation (3)
MGMT 467 Staffing and Evaluation (3)
▮ MGMT 495 Strategic Management (3)

Management Information Systems (3 S.H.)

- MIS 202 Microcomputers in Business (3)

Marketing (3 S.H.)

- MKTG 300 Principles of Marketing (3)

Operations Management (3 S.H.)

- OM 334 Operations Management (3)

ELECTIVES (12 S.H.)

Note: All 12 elective credits must be in 300+ level courses.

Business Administration

- BUSA 399 Internship Problems (3)
BUSA 486 Independent Studies in Business (1-3)
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)
MGMT 415 Theories of Management (3)
MGMT 427 Management Development (3)
MGMT 437 Labor Relations (3)
MGMT 457 Problems in Management of Human Resources (3)
MGMT 477 International Human Resources Management (3)

Business Education

- BUED 440 Training and Employee Development (3)

Economics

- ECON 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.

B.S. MINOR - BUSINESS ADMINISTRATION (BA)

33 S.H.

REQUIRED COURSES (33 S.H.)

Accounting (6 S.H.)

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

Business Administration/Management (9 S.H.)

- ▮ BUSA 220 Business Statistics (3)
BUSA 291 Legal Environment of Business (3)
MGMT 315 Principles of Management (3) OR
▮ 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)

Management Information Systems (3 S.H.)

- MIS 202 Microcomputers in Business (3)

Marketing (3 S.H.)

- MKTG 300 Principles of Marketing (3)

Operations Management (3 S.H.)

- OM 334 Operations Management (3)

B.S. MINOR - BUSINESS LAW (BLAW)

24 S.H.

REQUIRED COURSES (12 S.H.)

Accounting (6 S.H.)

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

Business Administration (6 S.H.)

- BUSA 301 Business Law I (3)
BUSA 311 Business Law II (3)

ELECTIVES (12 S.H.)

Accounting

- ACCT 421 Introduction to Taxation (3)

Business Administration

- BUSA 101 Introduction to Law and the Legal Process (3)
BUSA 376 Topics in Business (1-3)

Note: BUSA 376 requires prior written approval from department chairperson.

- BUSA 401 Insurance Law (3)
BUSA 411 International Business Law (3)
BUSA 421 Consumer Law (3)
BUSA 431 Real Estate Law (3)
BUSA 491 Seminar in Business Law (3)

Note: The following courses require written approval from department chairperson:

Philosophy

- PHIL 332 Philosophy of Law (3)

Political Science

- POLS 320 Constitutional Law (3)
POLS 420 Administrative Law (3)

Additional courses may be used with prior written approval from department chairperson.

* "Additional Requirements" course as defined in Item 3, page 19.

B.S. MINOR - INTERNATIONAL BUSINESS (33 S.H.)

REQUIRED COURSES (15 S.H.)

Economics

- ECON 404 International Economics (3) OR
ECON 415 International Economic Development (3)

Finance

- FIN 440 International Finance (3)

Management

- MGMT 455 International Business (3)
MGMT 475 Seminar in International Management (3)

Marketing

- MKTG 331 International Marketing (3)

FOREIGN LANGUAGE (9 S.H.)

A minimum of three semesters in a single foreign language; may also be applied toward fulfilling University Studies requirements.

ELECTIVES (9 S.H.)

Select three of the following:

- 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)
MGMT 477 International Human Resources Management (3)

B.S. MINOR - MANAGEMENT (MGMT)

30 S.H.

REQUIRED COURSES (12 S.H.)

Select at least one course from each of the following four sections:

Organizational Component

- MGMT 315 Principles of Management (3)
✎ MGMT 317 Management of Human Resources (3)
✎ MGMT 325 Organizational Dynamics (3)
MGMT 415 Theories of Management (3)
MGMT 417 Compensation (3)
MGMT 427 Management Development (3)
MGMT 437 Labor Relations (3)
MGMT 457 Problems in Management of Human Resources (3)
MGMT 467 Staffing and Evaluation (3)

Operational Component

- MGMT 340 Management Science (3)
MGMT 435 Managing for Quality (3)
OM 334 Operations Management (3)
OM 344 Purchasing (3)
OM 434 Quality and Productivity Management (3)
OM 464 Project Management (3)

International Component

- MGMT 455 International Management (3)
MGMT 475 Seminar in International Management (3)
MGMT 477 International Human Resources Management (3)

Integrating Component

- MGMT 425 Small Business Management (3)
✎ MGMT 495 Strategic Management (3)

ELECTIVES (18 S.H.)

Select any additional 18 S.H. from the above list.

COURSE DESCRIPTIONS

Note: All courses except BUSA 101, 106, and 398 are offered on a grade-only basis.

BUSINESS ADMINISTRATION (BUSA)

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 students who have completed 15 or more credits in business.

106 - Introduction to Business (3 S.H.)

Develops broad, basic understanding of business institutions, functions, practices, and problems. Provides students with a good overview of the major business functional areas and current issues in business, as well as important topics such as international business and business ethics. Not open to students who have completed 15 or more credits in business.

220 - Business Statistics (3 S.H.)

Elementary business statistics including descriptive measures, elementary probability, sampling of distributions, and statistical inference. Competence in the use of Excel is necessary. Prerequisites: MATH 110, MATH 120, MATH 140, or instructor's permission. Grade only.

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.)

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, antitrust, securities, insurance, trademark, copyright, employment law, wills, and consumer protection. Prerequisite: BUSA 301 or instructor's permission. Grade only.

320 - Intermediate Business Statistics (3 S.H.)

A continuation of Business Statistics I, including Chi-Square Tests, regression and correlation, and analysis of variance. Prerequisite: BUSA 220 or instructor's permission. Grade only.

326 - Business and the Future (3 S.H.)

This course includes a combination of lectures, student presentations, selected readings, and discussion that stimulate students to look into the future and imagine what changes will be taking place. The objective is to enhance competitiveness, stimulate creative thinking and innovation and, in so doing, to broaden horizons and career potential of graduates. Prerequisite: Junior or senior standing or instructor's permission. Grade only.

340 - Management Science (3 S.H.)

Quantitative analysis of management decision-making problems using a systematic and scientific approach. In particular, the focus is on application of quantitative and decision models including linear and dynamic programming, distribution and network models, inventory models, queuing theory, Markov analysis and simulation. Prerequisite: BUSA 320 or instructor's permission. Grade only.

376 - Topics in Business (1-3 S.H.)

An analysis of current topics and 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 the 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 website for a list of requirements. Minimum 2.0 GPA. Grade only.

401 - Insurance Law (3 S.H.)

A study of the sources of insurance law. Analysis of the contractual relationships as to the scope of the obligations of the parties, risks covered, performance and termination. Areas of insurance included are casualty liability, life, property, auto and group insurance among others. Prerequisite: BUSA 301. Grade only.

411 - International Business Law (3 S.H.)

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.)

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.)

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.

486 - Independent Studies in Business (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 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.

MANAGEMENT (MGMT)**315 - Principles of Management (3 S.H.)**

Analysis of the functions performed by managers of all organizations and related theory and research. Important management topics such as current changes and trends in management, ethics, and global management are addressed. Prerequisites: Junior standing. Grade only.

317 - Management of Human Resources (3 S.H.)

Problems involved in developing an organization's human resources so that benefits to both the individual and the organization are maximized. Prerequisites: Junior standing. Grade only.

325 - Organizational Dynamics (3 S.H.)

Examination of different types of leadership skills used to resolve organizational problems and to achieve the goals of the organization. The behavioral sciences are stressed, with emphasis on leadership and motivation theories. Prerequisite: Junior standing. Grade only.

365 - Independent Readings in Management (1-3 S.H.)

To provide more background in management, three books of the student's choice (with faculty advisor approval) 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 of the books. Prerequisite: Junior standing 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.)

To provide more background in human resources, three books of the student's choice (with faculty advisor approval) 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 of the books. Prerequisite: Junior standing 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.)

To provide more background in labor relations, three books of the student's choice (with faculty advisor approval) 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 of the books. Prerequisite: Junior standing or instructor's permission. Limit of 9 credits of independent study per program. Grade only.

415 - Theories of Management (3 S.H.)

Study of various modern theories of management and organization. Application of these theories to actual management situations is also examined. Prerequisite: MGMT 315 or MGMT 325. Grade only.

417 - Compensation (3 S.H.)

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.)

Explore, investigate, and analyze small businesses and their management practices. Develop business plans and feasibility studies of small business. Study all operational and managerial aspects of small business operations. Extensive usage of case study methods. Prerequisites: BUSA 220 and MGMT 315 or MGMT 325 or instructor's permission. Grade only.

427 - Management Development (3 S.H.)

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 or MGMT 325 and MGMT 317 or instructor's permission. Grade only.

435 - Managing for Quality (3 S.H.)

An overview of the philosophy and principles of Total Quality Management (TQM), in general, and of Deming's approach in particular. Many of the most important contributors to the quality literature and movement are studied within the historical context of the development of Quality Management philosophy, methods, and technology. An overview of the basic tools and methods of TQM is given with applications. Prerequisites: OM 334 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 or MGMT 325 and MGMT 317 or instructor's permission. Grade only.

455 - International Business (3 S.H.)

A study of how managing abroad differs from managing at home, from both strategic and operations oriented perspective. Prerequisite: Junior standing or instructor's permission. Grade only.

457 - Problems in Management of Human Resources (3 S.H.)

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 or MGMT 325 and MGMT 317 or instructor's permission. Grade only.

467 - Staffing and Evaluation (3 S.H.)

Examination of 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, BUSA 220, MGMT 315 or MGMT 325 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 the different international settings in which they operate. The course will incorporate the study and intensive discussion of latest literature and case studies in this field. Prerequisite: MGMT 455 or instructor's permission. Grade only.

477 - International Human Resources Management (3 S.H.)

This course focuses on issues involved in international human resource management. It reviews adaptations that human resources management must make to work in today's global environment. Prerequisites: MGMT 315 or MGMT 325, and MGMT 317, or consent of instructor. Grade only.

495 - Strategic Management (3 S.H.)

An advanced, integrative course for senior business administration majors. Uses cases to stress interrelationships of all functional areas, organization life stages, strategy development, and policy formation. Prerequisites: MKTG 300, OM 334, MGMT 325, FIN 360, and senior standing. Grade only.

BUSINESS EDUCATION

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

www.winona.edu/bued

Jeanette Karjala, Advisor

The Business Education program offers the following degree and certificate programs:

- Bachelor of Science: Business Education (Teaching)
- Bachelor of Science: Training and Development Minor
- Certificate: Training and Development

For general teacher education requirements, see the Department of Education section on page 84; for specific business education requirements and course descriptions, see page 91.

CHEMISTRY

Pasteur Hall, Room 340 (507-457-5290)

<http://www.winona.edu/chemistry/>

Charla Miertschin (Chairperson); Jeanne Franz (Director of S.E. MN Analytical Service)

FACULTY

Mark A. Engen, Associate Professor; B.S., Bemidji State University; Ph.D., Montana State University; 1997 -

Jeanne L. Franz, Professor; B.A., Augustana College; Ph.D., University of Minnesota-Twin Cities; 1996 -

Sara M. Hein, Associate Professor; B.S., University of Wisconsin-La Crosse; Ph.D., University of Iowa; 2000 -

Robert W. Kopitzke, Associate Professor; B.S., M.S., Ph.D., Florida Institute of Technology; 1999 -

Charla S. Miertschin, Professor; B.S., Abilene Christian University; Ph.D., Texas A&M University; 1993 -

Thomas W. Nalli, Professor; B.S., Union College (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 -

Jamie L. Schneider, Associate 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 -

PURPOSE

The Chemistry Department offers four 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 projects with members of the department in preparation and characterization of novel inorganic compounds; synthesis and isolation 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 molecular computation and modeling in chemistry; and synthesis, characterization, and applications of polymers.

In addition, the department offers a B.S. Chemistry (Teaching) major for students wishing to teach chemistry. The major meets Minnesota teacher certification requirements. Wisconsin certification requires minor modifications. Students preparing for certification in other states should consult with the department to learn of any necessary modifications. The department also offers three minors in chemistry: biochemistry, polymer chemistry, and chemistry.

The Chemistry Department is home to the Southeast Minnesota Analytical Service (SEMAS), which provides educational opportunities through part-time employment.

PRE-PROFESSIONAL SEQUENCES

The Chemistry Department sponsors pre-professional sequences, which are not degree programs (e.g., major or minor) at WSU. The programs are preparatory for a degree at another college or university. The pre-professional sequences offered through the Chemistry Department are pre-medicine (Allopathic and Osteopathic) and pre-pharmacy. For detailed course descriptions, see "Pre-Professional Sequences" in this catalog.

ACCREDITATION AND MEMBERSHIP

The American Chemical Society (ACS) 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 ACS as a professional chemist.

PASS/NO CREDIT (P/NC) COURSES

Except for internships and practica, students must take all courses in their major, minor, options, concentrations, and licensures on a grade-only basis. The P/NC option is available to non-majors unless otherwise noted. Courses offered on a pass/no credit-only or grade-only basis are so designated in the course descriptions.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Chemistry Department offers the following flag courses in the University Studies Program:

Flag

Oral

- CHEM 360 Chemical Information (2)
- CHEM 436 Topics in Environmental Chemistry (3)
- CHEM 475 Seminar in Chemistry (1)

Math/Critical Analysis

- CHEM 412 Physical Chemistry I (3)
- CHEM 414 Physical Chemistry II (3)

Writing

- CHEM 413 Physical Chemistry Lab I (1)
- CHEM 415 Physical Chemistry Lab II (2)
- CHEM 426 Analytical Chemistry II (4)
- CHEM 430 Individual Problems in Chemistry (1-3)

Flag courses that can be used to satisfy Chemistry major/minor requirements are identified in the lists of required courses and electives in this section.

B.S. MAJOR CHEMISTRY - OPTION A (CHA)

63-67 S.H. (No Minor Required)

REQUIRED COURSES (57-61 S.H.)

Chemistry - CHEM (41 S.H.)

- 212, 213 Principles of Chemistry I, II (8)
- 350, 351 Principles of Organic Chemistry I, II (9)
- 360 Chemical Information (2)
- 412 Physical Chemistry I (3)
- 413 Physical Chemistry I Lab (1)
- 414 Physical Chemistry II (3)

- 415 Physical Chemistry II Lab (2)
- 425 Analytical Chemistry I (4)
- 426 Analytical Chemistry II (4)
- 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.)

- MATH 120 Precalculus (4)
- MATH 160, 165 Calculus I, II (8)

Note: Precalculus, MATH 120 (4), may be omitted if a student has otherwise met the prerequisite for MATH 160.

Physics (8 S.H.)

- PHYS *221, *222 University Physics I, II (8)

ELECTIVES (6 S.H.)

- CHEM 320, 401, 402, 410, 411, 420, 427, 428, 430, 436 (Oral Flag), 438, 439, 447, 451, 470, 472

Note: CHEM 430 cannot account for more than 3 S.H. of chemistry electives.

B.S. MAJOR CHEMISTRY - OPTION B (CHB)

74-78 S.H. (No Minor Required)

Note: American Chemical Society certification will be given to students completing this option.

REQUIRED COURSES (61-65 S.H.)

Chemistry - CHEM (45 S.H.)

- 212, 213 Principles of Chemistry I, II (8)
- 350, 351 Principles of Organic Chemistry I, II (9)
- 360 Chemical Information (2)
- 400 Biochemistry I (4)
- 412 Physical Chemistry I (3)

- ☞ 413 Physical Chemistry I Lab (1)
- ☞ 414 Physical Chemistry II (3)
- ☞ 415 Physical Chemistry II Lab (2)
- 425 Analytical Chemistry I (4)
- ☞ 426 Analytical Chemistry II (4)
- 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.)

- MATH 120 Precalculus (4)
- MATH 160, 165 Calculus I, II (8)

Note: Precalculus, MATH 120 (4), may be omitted if a student has otherwise met the prerequisite for MATH 160.

Physics (8 S.H.)

- PHYS *221, *222 University Physics I, II (8)

ADDITIONAL REQUIREMENTS (5 S.H.)

- ☞ CHEM 430 Individual Problems in Chemistry (3)
- CHEM 451 Advanced Inorganic Chemistry II (2)

CHEMISTRY ELECTIVES (8 S.H.)

- Chemistry 401, 402, 410, 411, 420, 427, 428, 436 (☞), 438, 439, 447, 470, 472

OTHER SUGGESTED ELECTIVES

Computer programming, biology, geology, German.

B.S. MAJOR - BIOCHEMISTRY (CHBC)

75-79 S.H. (No Minor Required)

REQUIRED COURSES (75 S.H.)

Chemistry—CHEM (40 S.H.)

- 212, 213 Principles of Chemistry I, II (8)
- 350, 351 Principles of Organic Chemistry I, II (9)
- ☞ 360 Chemical Information (2)
- 400, 401 Biochemistry I, II (7)
- 402 Biochemistry Laboratory (1)
- ☞ 412 Physical Chemistry I (3)
- ☞ 413 Physical Chemistry Laboratory I (1)
- 425 Analytical Chemistry I (4)
- 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.)

- MATH 120 Precalculus (4)
- MATH 160, 165 Calculus I, II (8)

Note: Precalculus, MATH 120 (4) may be omitted if students have otherwise met the prerequisite for MATH 160.

Physics (8 S.H.)

- PHYS *221, *222 University Physics I, II (8)

Biology (14 S.H.)

- * BIOL 241 Basics of Life (4)
- * BIOL 242 Organismal Diversity (4)
- BIOL 308 Cell Biology (3)
- BIOL 310 Genetics (3)

CHEMISTRY ELECTIVES (5 S.H.)

- Chemistry 414, 415, 426, 427, 430, 438, 439, 447, 451

Note: CHEM 430 cannot account for more than 3 S.H. of chemistry electives.

OTHER SUGGESTED ELECTIVES

- STAT 210 Statistics (3) OR
- STAT 305 Biometry (3)
- MATH 260 Differential Equations and Linear Algebra (4)
- ENG 210 Advanced Expository Writing (3)
- BIOL 430 Molecular Biology (3) OR
- BIOL 431 Molecular Biology Laboratory (4)

B.S. MAJOR CHEMISTRY - ENVIRONMENTAL SCIENCE OPTION (CHES)

92-93 S.H. (No Minor Required)

Note: Alliance with environmental science options of other departments is described under "Environmental Science" on page 101.

CHEMISTRY CORE COURSES (29 S.H.)

- 212, 213 Principles of Chemistry I, II (8)
- 350, 351 Principles of Organic Chemistry I, II (9)

- ☞ 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)
- ☞ 430 Individual Problems (2)
- ☞ 436 Topics in Environmental Chemistry (3)
- ☞ 475 Chemistry Seminar (1)

ENVIRONMENTAL SCIENCE OPTION ELECTIVES (4 S.H.)

- 400 Biochemistry I (4)
- 401 Biochemistry II (3)
- 410 Polymer Chemistry (3)
- ☞ 414 Physical Chemistry II (3)
- ☞ 415 Physical Chemistry II Lab (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 (1) or other advanced chemistry electives as approved by the Chemistry Department

OTHER REQUIRED COURSES (49-50 S.H.)

Biology (12 S.H.)

- * BIOL 241 Basics of Life (4)
- * BIOL 242 Organismal Diversity (4)
- BIOL 312, 313 General Ecology Lecture and Lab (4)

Geoscience (12 S.H.)

- * GEOS 120 Dynamic Earth (4)
- * GEOS 130 Earth and Life through Time (4)
- GEOS 240 Watershed Science (4)

Mathematics (8 S.H.)

- MATH 160, 165 Calculus I, II (8)

Physics (8 S.H.)

- PHYS *221, *222 University Physics I, II (8)

The following two courses (6 S.H.)

- ECON 315 Environmental and Natural Resource Economics (3)
- POLS 340 Environmental Policy (3)

One of the following courses (3-4 S.H.)

Biology

- ☞ 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)

Geoscience

- GEOS 325 Environmental Geoscience (3)
- GEOS 315 Surficial Processes and Soils (4)
- ☞ GEOS 420 Applied Hydrogeology (4)

TEACHING OPTIONS:

B.S. MAJOR - CHEMISTRY (Teaching) (CHET) B.S. MAJOR - PHYSICAL SCIENCE (Teaching) (CPST)

The Chemistry Department, in cooperation with other science departments and the College of Education, has developed a Minnesota Board of Teaching (BOT)-approved program. Students should be aware that the program described below may continue to change as the BOT considers changes to the Science Licensure Programs. Students will need to work closely with their academic advisor to ensure that they will be able to graduate with a BOT-approved degree. Successful completion of the Chemistry Teaching program will enable a student to apply for licensure in both 5-8 middle level general science and 9-12 high school chemistry upon achieving passing scores for both the Praxis I and II tests. Successful completion of the Physical Science Teaching program will enable a student to apply for licensure in both 9-12 high school chemistry and 9-12 high school physics upon achieving passing scores for both the Praxis I and II tests.

Notes:

1. Teaching majors must gain admission through a competitive admission process to the Education Program before they can enroll in Professional Education Sequence courses. (See the Department of Education section on page 84).
2. Students must have and maintain a cumulative GPA of 2.75 to be admitted to and continue in the Professional Education program.

* "Additional Requirements" course as defined in Item 3, page 19.

- Students must have a minimum GPA of 2.50 in all courses completed in the declared major.
- Teaching majors must take all courses in the Professional Education Sequence in addition to the courses in the content area listed below. EDUC 305 and EDUC 312 must be taken together in the semester immediately following admission to the Education Program. EDUC 429 and EDUC 459 should be taken together in the semester prior to student teaching.
- Individuals holding a college degree who need only a certification for grades 9-12 physics are required to satisfy the standard content competencies gained through successful completion of PHYS 221, 222, 223, 311, 320, 340, 345, 350, 330, 370, and 460; CHEM 212, 213; MATH 160, 165, 270; and EDUC 305, 308, 312, 429, 449, 459, 459, 465.
- Individuals holding a college degree who need only a certification for grades 9-12 chemistry are required to satisfy the standard content competencies gained through successful completion of CHEM 212, 213, 320, 340, 360, 400, 412, 413, 425, 430, 431 and 475; PHYS (221, 222) or (201, 202), and 311; MATH 160, 165; and EDUC 305, 308, 312, 429, 449, 459, 459, 465.

B.S. MAJOR - CHEMISTRY (Teaching) (CHET)

80 S. H. (No Minor Required)

REQUIRED COURSES (30 S.H.)

Chemistry - CHEM (30 S.H.)

- 212, 213 Principles of Chemistry I, II (8)
- 320 Environmental Chemistry (4)
- 340 Organic Chemistry Survey OR
- 350 Principles of Organic Chemistry I (4)

Note: Only students planning to take CHEM 351 as the chemistry elective below should take CHEM 350.

- ☞ 360 Chemical Information (2)
- ☞ 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)

OTHER REQUIREMENTS (46 S.H.)

Biology (8 S.H.)

- * BIOL 241 Basics of Life (4)
- * BIOL 242 Organismal Diversity (4)

Geoscience (12 S.H.)

- * GEOS 105 Astronomy (4) OR
- * GEOS 110 Oceanography (4) OR
- * GEOS 115 Meteorology (4)
- * GEOS 120 Dynamic Earth (4)
- * GEOS 130 Earth and Life through Time (4)

Mathematics (8 S.H.)

- MATH 160 Calculus I (4)
- MATH 165 Calculus II (4)

Physics (12 S.H.)

- PHYS *221, *222 University Physics I, II (8) OR
- PHYS *201, *202 General Physics (8)
- PHYS 311 Science Teaching Methods (4)

Health, Exercise and Rehabilitative Sciences (3 S.H.)

- HERS 204 Personal and Community Health (3)

Special Education (3 S.H.)

- * SPED 400 Education of Exceptional Children/Youth (3)

ELECTIVES (4 S.H.)

Chemistry (4 S.H.)

Any 300-level or higher chemistry courses, or other advanced chemistry electives as approved by the Chemistry Department, or CHEM 351 for students taking CHEM 350.

PROFESSIONAL EDUCATION SEQUENCE (32 S.H.)

- * EDUC 305 Human Development and Learning: Secondary (4)
- EDUC 308 Human Relations and Student Diversity (3)
- ☞ EDUC 312 Instructional Planning and Assessment: Secondary (3)
- EDUC 429 Secondary Reading and Teaching Strategies (4)
- ☞ EDUC 449 Middle Level Philosophy, Organization and Planning (3)
- ☞ EDUC 465 Student Teaching (12 - 16)

B.S. MAJOR - PHYSICAL SCIENCE (Teaching) (CPST)

86 S. H. (No Minor Required)

REQUIRED COURSES (68 S.H.)

Chemistry - CHEM (32 S.H.)

- 212, 213 Principles of Chemistry I, II (8)
- 320 Environmental Chemistry (4)
- 340 Organic Chemistry Survey (4)
- ☞ 360 Chemical Information (2)
- 400 Biochemistry (4)
- ☞ 412 Physical Chemistry I (3)
- ☞ 413 Physical Chemistry I Lab (1)
- 425 Analytical Chemistry I (4)
- 431 Guided Study in Teaching Chemistry (2)

Physics - PHYS (34 S.H.)

- *221, *222, *223 University Physics I, II, III (12)
- 320 Computational Physics (2)
- 311 Science Teaching Methods (4)
- 340 Modern Physics (4)
- 350 Mechanics (4)
- 330 Electronics (4)
- 370 Optics (4)

Physics or Chemistry (2 S.H.)

- ☞ CHEM 430 Individual Problems (1) AND
- ☞ CHEM 475 Seminar in Chemistry (1) OR
- ☞ PHYS 460 Undergraduate Research (2)

OTHER REQUIREMENTS (18 S.H.)

Mathematics (12 S.H.)

- MATH 160 Calculus I (4)
- MATH 165 Calculus II (4)
- MATH 270 Differential Equations (4)

Health, Exercise and Rehabilitative Sciences (3 S.H.)

- HERS 204 Personal and Community Health (3)

Special Education (3 S.H.)

- * SPED 400 Education of Exceptional Children/Youth (3)

PROFESSIONAL EDUCATION SEQUENCE (32 S.H.)

- * EDUC 305 Human Development and Learning: Secondary (4)
- EDUC 308 Human Relations and Student Diversity (3)
- ☞ EDUC 312 Instructional Planning and Assessment: Secondary (3)
- EDUC 429 Secondary Reading and Teaching Strategies (4)
- ☞ EDUC 449 Middle Level Philosophy, Organization and Planning (3)
- ☞ EDUC 465 Student Teaching (12 - 16)

B.S. MINOR - CHEMISTRY (CHEM)

30-34 S.H.

REQUIRED COURSES (28-32 S.H.)

Chemistry - CHEM (24 S.H.)

- 212, 213 Principles of Chemistry I, II (8)
- 350, 351 Principles of Organic Chemistry I, II (9)
- ☞ 412 Physical Chemistry I (3)
- 425 Analytical Chemistry I (4)

Mathematics (4-8 S.H.)

- MATH 120 Precalculus (4)
- MATH 160 Calculus (4)

Note: Precalculus, MATH 120 (4), may be omitted if a student has otherwise met the prerequisite for MATH 160. MATH 150 (3) and MATH 155 (3) can be used to satisfy MATH 160 in this minor.

ELECTIVES (2 S.H.)

Chemistry electives

B.S. MINOR - BIOCHEMISTRY (BIOC)

29 S.H.

REQUIRED COURSES (29 S.H.)

Chemistry - CHEM (25 S.H.)

- 212, 213 Principles of Chemistry I, II (8)
- 350, 351 Principles of Organic Chemistry I, II (9)
- 400, 401, 402 Biochemistry I, II (8)

Note: CHEM 340, Organic Chemistry (4), may be substituted for CHEM 350.

Mathematics (4 S.H.)

- MATH 120 Precalculus (4) OR
- MATH 160 Calculus I (4)

Note: Precalculus, MATH 120 (4), may be omitted if a student has otherwise met the prerequisite for MATH 160. MATH 150 (3) and MATH 155 (3) can be used to satisfy MATH 160 in this minor.

B.S. MINOR - POLYMER CHEMISTRY (CHP)

27-31 S.H.

REQUIRED COURSES (27-31 S.H.)**Chemistry - CHEM (23 S.H.)**

- 212, 213 Principles of Chemistry I, II (8)
 350, 351 Principles of Organic Chemistry I, II (9)
 410 Polymer Chemistry (3)
 411 Synthesis and Characterization of Polymers (3)

Note: CHEM 340, Organic Chemistry (4), may be substituted for CHEM 350.

Mathematics (4-8 S.H.)

- MATH 120 Precalculus (4)
 MATH 160 Calculus I (4)

Note: Precalculus, MATH 120 (4), may be omitted if a student has otherwise met the prerequisite for MATH 160. MATH 150 (3) and MATH 155 (3) can be used to satisfy MATH 160 in this minor.

COURSE DESCRIPTIONS (CHEM)**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 University Studies 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.

106 (3 S.H.), 107 (4 S.H.) - Chemistry in Our World

Intended to introduce students to chemistry and give them an appreciation and understanding of the role chemistry plays in their everyday lives. Topics covered include atomic structure, bonding, water, acid rain, and energy. This course is intended both for University Studies students and as a first course for students who have not had high school chemistry and wish to prepare to take other chemistry classes. Students may elect to take the course with lab (CHEM 107, 4 S.H.) or without lab (CHEM 106, 3 S.H.). **Note:** Students may enroll in either CHEM 106 or CHEM 107, but they cannot earn credit for both courses. Offered each semester.

108 - Introductory General Chemistry (4 S.H.)

Intended to introduce the students to chemistry. Three lectures and one laboratory/discussion period per week. Intended to be the first course in chemistry for students who have not had high school chemistry and wish to prepare for entrance into CHEM 210 or CHEM 212. Students completing the course may later elect CHEM 210 or 212 for credit or, with the department's permission, they may go directly into CHEM 213. Offered yearly.

190 - Forensic Chemistry (4 S.H.)

This interdisciplinary course in forensic science meets the needs of criminal justice majors as well as students who desire a course that offers a broad scientific experience. This course will offer non-science majors opportunities to see the relevance of chemistry, biology, geology, and physics to their chosen professional life. It will provide an informative overview of techniques used by modern criminalistics labs and offer students a hands-on opportunity to explore the intricacies of how criminal investigation relies on forensic science. Through this course, students will gain an appreciation of how local law enforcement agencies rely on scientific studies for technical field work. Offered yearly.

210 - Chemistry for Health Sciences (5 S.H.)

A study of the principles of general, organic, and biological chemistry with emphasis on the numerous connections between chemistry and human health. Four lectures and one laboratory period per week. Prerequisites: High school chemistry or CHEM 108 and MATH 100 or qualifying score on mathematics placement exam. Recommended for pre-nursing majors. Offered fall and spring semesters.

212, 213 - Principles of Chemistry I, II (4 S.H. Each)

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 instructor's permission. 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.)

An introduction to the organic chemistry of synthetic polymers. The introduction to nomenclature, properties, synthesis, and characterization of organic compounds is followed by the application of these concepts to commercially important polymeric materials. Laboratories focus on the synthesis and characterization of addition and condensation polymers. 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

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 CHEM 350: CHEM 212 and CHEM 213; for CHEM 351: CHEM 350 or CHEM 340 or CHEM 341 with instructor's permission. Offered yearly.

354 - Characterization of Organic Compounds (2 S.H.)

Using instrumental methods in the identification of organic compounds. Focus will be on gaining proficiency in instrument use and utilizing them in conjunction with various elucidation techniques. Prerequisite: CHEM 351 or instructor's permission. Offered irregularly.

360 Chemical Information (2 S.H.)

Finding chemical information by on- and off-line searching of data bases by computer and by hand-searching print-form reference works such as Chemical Abstracts, dictionaries, encyclopedias, index serials, formularies, treatises and review serials. Lecture topics will also include units on patents, institutional publications and the primary periodical literature. 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: Credit or concurrent enrollment in CHEM 340 or CHEM 350. 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

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 CHEM 400: CHEM 340 or CHEM 350 and CHEM 412 (or instructor's permission); prerequisite for CHEM 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 (3 S.H.)

An overview of polymer chemistry is presented. Major topics include polymerization reactions and kinetics, polymer morphology, polymer properties, and polymer characterization. Prerequisite: CHEM 351 or CHEM 340. Credit or concurrent registration in CHEM 412 or ENGR 300 or instructor's permission. Offered yearly.

411 - Synthesis and Characterization of Polymers (3 S.H.)

An in-depth study of polymer synthesis and characterization. The lecture portion of the course will focus on the controlled synthesis of polymeric materials including strategies for controlling polymer molecular weight, polymer architecture, and polymer microstructure. Characterization of polymers using spectroscopy, microscopy, and diffraction techniques will also be covered. The laboratory portion of the course will include synthesis of polymers using traditional addition and condensation polymerization techniques and using more recently developed methods including ROMP and ATRP. Characterization of polymers will include viscometry, thermal analysis, and spectroscopic methods. Prerequisite: CHEM 410. Offered every other year.

412 - Physical Chemistry I (3 S.H.)

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.

* "Additional Requirements" course as defined in Item 3, page 19.

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.)

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.)

Quantum Chemistry. Chemical Kinetics: rate laws, mechanisms, temperature-dependence, catalysis. Boltzmann's distribution. Theories of reaction rates: collision model, transition state theory, diffusion and 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.)

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.

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 (4 S.H. Each)

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 (2 S.H.)

An opportunity for the qualified teaching candidate to obtain practical knowledge about and experience with teaching chemistry contents, techniques of planning and safely presenting chemical lecture demonstrations, and planning and safely carrying out student laboratory exercises. Prerequisites: one year of university chemistry and organic chemistry; junior or senior standing. Credits may not be applied toward "electives" category of other programs in chemistry.

436 - Topics in Environmental Chemistry (3 S.H.)

This course covers advanced topics in environmental chemistry. Topics studied will depend upon the interest of the class and may include topics such as acid rain, endocrine disruption, risk assessment, global warming, and bioaccumulation. Prerequisite: Chemistry 320 or instructor's permission. Offered every other year.

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 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.

CHILD ADVOCACY STUDIES

Minné Hall, Room 225 (507-457-5562)

E-mail: cmadland@winona.edu

Carole Madland (Program Director)

FACULTY

Jacqueline Hatlevig, Professor, Nursing; B.S.N., Winona State University; M.S.N., Ph.D., University of Wisconsin-Milwaukee; 1987 -
Carole Madland, Professor, Social Work; M.S.W., University of Tennessee-Nashville; B.A., Ph.D., Washington University (St. Louis, Missouri); 1991 -
J. Mark Norman, Associate Professor, Sociology; B.A., M.S., St. Cloud State University; Ph.D., South Dakota State University; 1996 -
Todd Paddock, Assistant Professor, Sociology; B.S., University of Michigan; M.S., Cornell University; Ph.D., Indiana University; 2004 -

PURPOSE

The focus of the Child Advocacy Studies curriculum is on experiential, interdisciplinary, ethical, and culturally sensitive content that provide professionals working with children a common knowledge base for responding to child maltreatment.

CHILD ADVOCACY STUDIES

Students may take the first course, CAST 301 or, with permission, they may take CAST 401 and CAST 402.

CERTIFICATION

Students who complete all three courses offered in the discipline receive a certificate of completion from WSU and the National Child Protection Training Center (NCPTC).

GRADE REQUIREMENTS

Students must receive a “C” or better in each course to obtain certification. In addition, students are expected to adhere to the ethical standards of the program.

CHILD ADVOCACY STUDIES (CAST) 11 S.H.**REQUIRED COURSES/ELECTIVES**

- CAST 301 Perspectives on Child Maltreatment & Child Advocacy (3)
 CAST 401 Professional & System Responses to Child Maltreatment (4)
 CAST 402 Responding to the Survivor of Child Abuse and Survivor Responses (4)

COURSE DESCRIPTIONS (CAST)**301 - Perspectives on Child Maltreatment & Child Advocacy (3 S.H.)**

This course is the introductory course for child advocacy studies. This course covers the history, comparative perspectives, the legal framework, responses to child maltreatment, the skills necessary to do the work, other pertinent issues pertaining to child maltreatment and child advocacy, and the future. The field of child maltreatment is fraught with controversy. Much of the class focuses on these controversies. The approach of the course will be from a variety of diverse, professional perspectives including the perspectives of a prosecuting attorney versus a defense attorney. The course is designed for students majoring in criminal justice, education, social work, sociology, psychology, nursing, paralegal, or other areas where knowledge of child maltreatment and advocating for children might be necessary. Much of the work will be experiential.

401 - Professional & System Responses to Child Maltreatment (4 S.H.)

This course focuses on the responses of professionals to allegations of child maltreatment. The purpose of this course is to expand the student's knowledge and skills in identifying, investigating, and prosecuting child maltreatment. The course is designed for students majoring in criminal justice, education, social work, sociology, psychology, nursing, paralegal, and other areas where knowledge of child maltreatment investigation and advocacy are necessary. Students will receive competency-based skills training such as forensic interviewing, documentation, and so on. Prerequisites: CAST 301, PSY 250, and CMST 290 or equivalent course content within one's major, or instructor's permission.

402 - Responding to the Survivor of Child Abuse and Survivor Responses (4 S.H.)

The purpose of this course is to prepare students to recognize the effects of child maltreatment and to apply intervention strategies for children and their families. Multidisciplinary approaches to prevention, advocacy, and treatment of child maltreatment survivors will be presented and discussed. The course is designed for students majoring in criminal justice, education, social work, sociology, psychology, nursing, paralegal, and other areas where knowledge of child maltreatment and advocating for children will be necessary. The experiential lab for this course involves courtroom observation and interaction with children. Prerequisites: CAST 301, CAST 401, or instructor's permission.

COMMUNICATION STUDIES

Performing Arts Center, Room 215 (507-457-5230)

www.winona.edu/communicationstudies

Edward Reilly (Chairperson)

FACULTY

Emilie Falc, Assistant Professor; B.A., University of Illinois; M.A., Ph.D., Ohio University; 2001 -

Lisa Glueck, Associate Professor; B.A., M.A., Washington State University, Pullman; Ph.D., University of Wisconsin; 1993 -

Susan Hatfield, Professor; B.S., M.A., Miami University (OH); Ph.D., University of Minnesota-Twin Cities; 1981 -

Amy Hermodson, Associate Professor; B.A., Concordia College; M.A., Michigan State University; Ph.D., University of Denver; 2000 -

Kelly Herold, Associate Professor; B.C.S., Dickinson State University (ND); M.A., University of Northern Colorado, Greeley; Ph.D., University of Southern Mississippi, Hattiesburg; 1996 -

Daniel Lintin, Associate Professor; B.A., Buena Vista College; M.A., Ph.D., University of Minnesota-Twin Cities; 1994 -

Rita Rahoi-Gilchrest, Associate Professor; B.A., University of Wisconsin; M.A., Ph.D., Ohio University; 2000 -

Edward Reilly, Associate Professor; B.A., Northern Illinois University; M.A., University of Maine; Ph.D., Louisiana State University; 1997 -

Tammy Swenson Lepper, Assistant Professor; B.A., Concordia College; M.A., Ph.D., University of Minnesota-Twin Cities; 2004 -

Jin Xu, Assistant Professor; B.A., Changsha Tiedao University, China; M.A., Southwest China Normal University, China; M.S., Ph.D., Bowling Green State University; 2004 -

PURPOSE

The Department of Communication Studies (CMST) provides academic 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 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 offers minors 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, education, history, mass communication, nursing, political science, psychology, and social work, and sociology; however, 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 advisor every semester. Students majoring in communication studies may not minor in the department.

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.

SCHOLARSHIPS AND HONORS PROGRAM

Scholarships for juniors and first-semester seniors are available through a fund established in the name of Gary Evans. Applications are taken early in the spring semester.

The department offers an Honors Program. Students with a minimum overall GPA of 3.20 and a minimum major GPA of 3.60 are encouraged to see the department chairperson for details. In addition, a chapter of Lambda Pi Eta, the honorary society of the National Communication Association, has been established.

PASS/NO CREDIT (P/NC) COURSES

Except for CMST 399 (Internship), CMST majors and minors must take all courses in their major, minor, options, concentrations, and licensures on a grade-only basis. The P/NC option is available to non-majors except for CMST 191 and CMST 499. Courses offered on a pass/no credit only or grade only basis are so designated in the course descriptions.

GRADUATION REQUIREMENTS

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. Students majoring in communication studies must earn a minimum GPA of 2.50 in their major; 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.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Department of Communication Studies offers the following flag courses in the University Studies Program:

FLAG

Oral

- CMST 451 Topics in Communication Studies (3)
- CMST 452 Topics in Public Communication (3)

Math/Critical Analysis

- CMST 380 Communication Research Methods (3)

Writing

- CMST 371 Discussion and Small Group Dynamics (3)
- CMST 485 Senior Seminar in Communication Theory (3)

Flag courses that can be used to satisfy Communication Studies major/minor requirements are identified in the lists of required courses and electives in this section.

B.A. MAJOR - COMMUNICATION STUDIES (CS)

42 S.H. (Minor Required)

REQUIRED COURSES (33 S.H.)



Foundations (9 S.H.)

- CMST 281 Intercultural Communication (3)
- CMST 282 Introduction to Communication Studies (3)
- CMST 283 Introduction to Rhetorical Studies (3)


Tools (9 S.H.)

-  CMST 380 Communication Research Methods (3)

Choose one of the following:


-  BUSA 220 Business Statistics (3)
-  PSY 231 Statistics (3)
- STAT 110 Fundamentals of Statistics (3) (Recommended)
- STAT 210 Statistics (3)

Choose one of the following:

- ENG 210 Advanced Expository Writing (3)
- ENG 211 Writing in Communities (3)
-  ENG 439 Technical Writing (3)

Theories (9 S.H.)

Choose three of the following:

- CMST 366 Organizational Communication (3)
-  CMST 371 Discussion and Small Group Dynamics (3)
- CMST 375 Argumentation and Advocacy (3)
- CMST 387 Interpersonal Communication (3)
- CMST 389 Persuasive Communication (3)

Topics (3 S.H.)

-  CMST 451 Topics in Communication Studies (3) OR
-  CMST 452 Topics in Public Communication (3)

Capstone (3 S.H.)

-  CMST 485 Senior Seminar in Communication Theory (3)

ELECTIVES (9 S.H.)

Choose three additional CMST Courses, excluding CMST 191. At least two courses must be at the 300- or 400-level. CMST 291, 451, and/or 452 may be used more than once provided they cover different topics. Only three credits of CMST 399 can be used toward this requirement. Theory courses not used for the theory requirement may be used to meet this requirement.

B.A. MINOR - COMMUNICATION STUDIES (CS)

21 S.H.

REQUIRED COURSES (12 S.H.)

Foundations (6 S.H.)

- CMST 282 Introduction to Communication Studies (3)
- CMST 283 Introduction to Rhetorical Studies (3)

Foundations/Theories (6 S.H.)

Choose two of the following:

- CMST 281 Intercultural Communication (3)
- CMST 366 Organizational Communication (3)
-  CMST 371 Discussion and Small Group Dynamics (3)
- CMST 375 Argumentation and Advocacy (3)
- CMST 387 Interpersonal Communication (3)
- CMST 389 Persuasive Communication (3)

ELECTIVES (9 S.H.)

Choose three additional CMST courses, excluding CMST 191 and 399. At least two courses must be at the 300- or 400-level. CMST 291, 451, and/or 452 can be used more than once provided they cover different topics. Foundation/theory courses not used for the foundation and/or theory requirement as listed above may be used to meet the elective requirement.

B.A. MINOR - INTERCULTURAL COMMUNICATION (ITCO)

21 S.H.

Note: CMST 381 is offered every third semester, not including summer sessions. Students should check with the department to see what semester it will be offered. CMST 381 will not be offered as an arranged course or as an independent study. Students who plan to graduate before it will be offered should choose a different minor. CMST 281 is a prerequisite for CMST 381.

REQUIRED COURSES (15 S.H.)

- CMST 281 Intercultural Communication (3)
- CMST 381 Advanced Intercultural and International Communication (3)

Choose one of the following:

- CMST 282 Introduction to Communication Studies (3) OR
- CMST 283 Introduction to Rhetorical Studies (3)

Take either two different topics in CMST 291 (total of 6 S.H.), or take CMST 290 and CMST 291:

- CMST 290 Disability Communication Culture (3)
- CMST 291 Topics in Multicultural Communication (3)

ELECTIVES (6 S.H.)

Choose one 300- or 400-level CMST course, not including CMST 381 or CMST 399.

Choose one of the following:

Geography

- GEOG 211 Economic Geography (3)
- GEOG 213 Cultural Geography (3)
- GEOG 223 Geography of the Orient (3)
- GEOG 224 Geography of Africa (3)
- GEOG 225 Geography of Latin America (3)
- GEOG 233 Geography of the Middle East (3)

Global Studies

- GS 200 Introduction to Global Studies

History

- HIST 123 East Asian Civilization (3)
- HIST 165 Latin American History (3)
- HIST 170 African Civilization (3)
- HIST 233 History of Mexico (3)
- HIST 235 History of the American Indian (3)
- HIST 320 North American Indian Civilization (3)
- HIST 341 Modern Japan (3)
- HIST 461 Latin American Social Revolution (3)
- HIST 469 History of Brazil

Music

- MUS 115 Music of East and Southeast Asia (3)
- MUS 116 Music of the Americas (3)

Political Science

- POLS 224 Politics and Society in Latin America (3)
- POLS 226 Politics and Society in Africa (3)
- POLS 270 Politics and Society in the Middle East (3)
- POLS 332 European Political Systems (3)
- POLS 335 Latin American Political Systems (3)
- POLS 336 Post-Communist Political Systems (3)
- POLS 337 Asian Political Systems (3)
- POLS 390 Comparative Politics - Third World (3)

Sociology

- SOC 201 Scandinavian Culture (3)
- SOC 340 Social-Cultural Anthropology (3)
- SOC 423 Race Relations and Minority Groups (3)

B.S. MAJOR - COMMUNICATION ARTS AND LITERATURE (Teaching) (CALT)

Requirements for this major are listed in English Department program description (page 99).

COURSE DESCRIPTIONS (CMST)

190 - Speech Activities (1-2 S.H.)

A concentrated laboratory course in a specific area of speech, closely coordinated with an instructor's current project. May be taken for a total of 3 S.H. Offered yearly.

191 - Introduction to Public Speaking (3 S.H.)

Includes selection and organization of materials, delivery of common types of speeches, listening skills, and analysis and evaluation of presentations. Grade only. Offered each semester.

266 - Professional Communication Skills (3 S.H.)

Exploration of the theory and skills necessary for effective communication in professional situations. Emphasis on interviewing, group meetings and oral communication including presentational speaking and use of presentational technology. Prerequisite: CMST 191. Offered yearly.

281 - Intercultural Communication (3 S.H.)

Investigates cultural processes influencing communication. Principles of communication theory and practice applied to intercultural communication situations including co-cultures within the U.S. as well as other cultures of the world. Offered each semester.

282 - Introduction to Communication Studies (3 S.H.)

Provides an overview of the basic communication theories applicable to a number of communication contexts (including small groups, interpersonal, and organizational). This course moves beyond CMST 191 by emphasizing theories instead of skills. Offered each semester.

283 - Introduction to Rhetorical Studies (3 S.H.)

Provides an introduction to the study of rhetoric and public address. The primary focus is on the manner in which people use communication to influence the behavior of others. It includes a broad survey of rhetorical theorists from Plato to the post-modernists. Prerequisite: CMST 191 or sophomore standing. Offered each semester.

287 - Conflict and Communication (3 S.H.)

This course examines the impact of communication behaviors on conflict escalation and resolution. Principles of negotiation and conflict management are examined within the context of interpersonal, intercultural, and international relationships. Offered yearly.

289 - Gender and Communication (3 S.H.)

A cultural approach to the study of males' and females' communication styles including language choice, creation of meaning, interpretation of reality, interaction patterns, nonverbal messages, and metaphors. Explores the similarities and differences between the male and the female communication culture in a variety of interpersonal and situational contexts including families, organizations, peer groups, friendships, and romantic relationships. Offered yearly.

290 - Disability Communication and Culture (3 S.H.)

Provides a comprehensive review of communication-based research examining disability in the contexts of interpersonal, organizational, and media with an emphasis in cultural communication differences. Offered alternate years.

291 - Topics in Multicultural Communication (3 S.H.)

A study of the communication and culture of groups from outside of the United States or of co-cultural groups within the United States. Each class will have a specific cultural focus. May be repeated with different topics. Offered two out of three semesters.

296 - Fundamentals of Interviewing (3 S.H.)

The interview as a specialized form of communication. Emphasis on skills and strategies of interviewer and interviewee in a variety of situations (survey, journalistic, helping, employment, etc.). Course tailored to meet specific needs of students. Prerequisite: CMST 191. Offered yearly.

366 - Organizational Communication (3 S.H.)

Facilitates understanding and promotes better communication in organizations. Emphasizes role of internal and external messages in the process of organizing, climate formation, culture and action. Prerequisites: CMST 191 and 282 or instructor's permission for non-majors. Offered each semester.

371 - Discussion and Small Group Dynamics (3 S.H.)

The study of interaction patterns and networks to gain practical and theoretical perspectives upon small-group theory. Prerequisites: CMST 191 and CMST 282 or instructor's permission for non-majors. Offered each semester.

375 - Argumentation and Advocacy (3 S.H.)

The study of "reason-giving" as a process for decision-making and the creation of social knowledge. Participants in the class use research, discussion, and practice in argumentative speaking and writing to develop critical thinking skills. Prerequisites: CMST 191 and CMST 282 or instructor's permission for non-majors. Offered yearly.

380 - Communication Research Methods (3 S.H.)

This course surveys the various qualitative and quantitative approaches used in communication research, providing a foundation for application in a research project of the student's choosing. Prerequisites: One 300-level theory course. (See list of theory courses under major.) Offered each semester.

381 - Advanced Intercultural and International Communication (3 S.H.)

Continuation of CMST 281, but emphasizes how to handle communication breakdowns that occur because of different cultural norms, customs, attitudes, and values. Valuable to those who plan to study, travel, or work abroad. Prerequisite: CMST 281 or instructor's permission. Offered every third semester.

387 - Interpersonal Communication (3 S.H.)

Designed to promote effective interpersonal communication through the study of theories such as self-perception, relationship development, and relationship deterioration. Topics may include conflict management, gender issues in communication, individual communication styles, and maintaining relationships. Prerequisites: CMST 191, CMST 282 or instructor's permission for non-majors. Offered each semester.

389 - Persuasive Communication (3 S.H.)

Introduces students to the theories of persuasion and social influence. Source, message, receiver and environmental factors are studied, and their effects upon the persuasive process analyzed. Prerequisites: CMST 191, CMST 282 and CMST 283 or instructor's permission for non-majors. Offered each semester.

399 - Internship (1-12 S.H.)

Supervised work experience designed by advisor, student and employer. Prerequisite: Instructor's permission and a minimum major GPA of 2.50. CMST majors only. P/NC only. Offered on demand.

451 - Topics in Communication Studies (3 S.H.)

An in-depth specific course. Topics vary. Prerequisite: CMST 191 and 282 or instructor's permission for non-majors. May be repeated with different topics. Offered yearly.

452 - Topics in Public Communication (3 S.H.)

An in-depth study of topics of concern in rhetoric and public address. Topics vary. Prerequisite: CMST 191 and 283 or instructor's permission for non-majors. May be repeated with different topics. Offered yearly.

485 - Senior Seminar in Communication Theory (3 S.H.)

In-depth study and research on individually selected topics. Prerequisite: CMST 380, ENG 111, an additional 300-level theory course (see list of theory courses under major), and instructor's permission. Offered each semester.

493 - Teaching and Coaching Oral Communication (3 S.H.)

Assists prospective teachers in exploring techniques common to classroom instruction in oral communication. Emphasis on enhancing students' skills and knowledge and assessing students' work. Involvement in coaching co-curricular speech, including organization and management of festivals and tournaments. Prerequisites: CMST 191, CMST 282, and EDUC 312. Offered yearly.

499 - Independent Studies in CMST (1-6 S.H.)

Offers advanced students an opportunity to study independently in an area of special interest to them. May be repeated for a total of 6 semester hours. A maximum of 3 semester hours may be applied toward electives in the major or minor. Prerequisite: Instructor's permission. Grade only. Offered on demand.

COMPUTER SCIENCE

Watkins Hall, Room 103 (507-457-5385)

<http://cs.winona.edu>

Joan Francioni (Chairperson)

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.Sc., Jadavpur University; 1989 -

Joan Francioni, Professor; B.S., University of New Orleans; M.S., Ph.D., Florida State University; 1998 -

Tim Gegg-Harrison, Professor; B.A., University of Missouri-Columbia; M.S., Ohio State University; Ph.D., Duke University; 1992 -

Sudharsan Iyengar, Professor; B.E., Burdwan University; M.S., Ph.D., Louisiana State University and A & M College; 1989 -

Chi-Cheng Lin, Associate 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 -

Mingrui Zhang, Associate Professor, B.S.E.E., Beijing University; M.S.C.S., Ph.D., University of South Florida; 1999 -

PURPOSE

The rapid spread of computers and information technology continues to generate a need for highly trained workers to design and develop new hardware and software systems and to incorporate new technologies into existing systems. According to the U.S. Bureau of Labor Statistics, "Computer systems analysts, database administrators, and computer scientists are expected to be among the fastest growing occupations through 2012. Employment of these computer specialists is expected to grow much faster than the average for all occupations as organizations continue to adopt and integrate increasingly sophisticated technologies." The Bureau also points out that rapidly changing technology requires an increasing level of skill and education on the part of employees. In addition to technical knowledge, companies want professionals who have communication and other interpersonal skills and can adapt their problem solving skills to different situations.

The Computer Science program at WSU is designed to prepare students in exactly these ways. As such, our majors take courses to develop not only their programming skills and technical knowledge, but also their communication and critical thinking skills. Students are also given opportunities, both inside and outside the classroom, to apply their knowledge to real-world problems. Students take applied computer science courses/tracks relative to areas such as bioinformatics, business, psychology, and geology. Through service-learning, independent research projects, and internships, they also have the opportunity to work one-on-one with faculty in specialized areas, such as digital image processing, computer assistive technology, game technology, embedded systems, database design, web programming, software engineering, and networking. By combining these opportunities, the department is able to prepare students for long-term success in the computer science field.

COMPUTER SCIENCE OPTIONS

Computer science majors choose between two options: Computer Science and Applied Computer Science. Both options require a common core set of courses designed to give students a fundamental understanding of both theoretical and applied computer science. Upper-level courses within each option build on these concepts to provide depth in particular areas. As such, all computer science majors are prepared for computer science careers and, if they desire, further graduate study in computer-related fields.

The Computer Science Option allows students to study the technical and theoretical aspects of computer science and software development in depth. Students in this option take two semesters of calculus, one course in physics, and nine upper-level computer science (CS) courses beyond the core. Required CS courses include Operating Systems, Programming Languages, and Theory of Computation.

The Applied Computer Science option allows students to study computer science concepts in the context of an applied area. Students choose a specific track in this option and, in addition to the core, take courses in an applied area, CS courses tied directly to the applied area, and CS electives. Currently, the department offers four tracks: Bioinformatics, Computer Information Systems, Human Computer Interaction, and Geographic Information Technology.

- **Bioinformatics** is the study of using computational tools and computer technologies to model, analyze, store, retrieve, manage, present, and visualize biological data. Primarily, the data to be processed are huge amounts of molecular biology data such as DNA sequences and proteins.
- **Computer Information Systems** involves the study of business-related processes and software. An integral component of this track is web programming—both client-side and server-side technologies, and also component-based reusable software architectures. These topics are important in the development of software to support E-business applications.
- **Human Computer Interaction (HCI)** is an interdisciplinary field that attempts to understand the tendencies and limitations of humans in order to design and develop effective software that is user friendly. As such, a successful HCI computer scientist must be well-versed in both computer science and psychology.
- **Geographic Information Technology (GIT)** involves the development of software to support the rapidly growing field of Geographic Information Systems (GIS). GIS uses digital technology to combine maps and images with computer databases. As such, GIS has a broad range of applications that allow businesses, engineers, and governments to make quicker and more informed decisions.

SCHEDULING RECOMMENDATIONS

A student who is interested in becoming a computer science major should ask to be assigned an advisor as soon as possible. All prospective and current computer science majors, including incoming first-year and transfer students, should consult a computer science advisor before registering.

GRADUATION REQUIREMENTS

For a checklist of the University's graduation requirements, see page 22. Specific requirements for Computer Science majors/minors are as follows:

1. Students must have an overall GPA of at least 2.50. The cumulative GPA for all computer science major and minor requirements and electives must be at least 2.50, and each course (except CS 491) must be completed with a grade of "C" or better.
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.

GRADUATION WITH HONORS

For graduation with honors in computer science, a student must:

1. Complete one of the following majors: Computer Science Option or Applied Computer Science Option
2. Have an overall GPA of 3.0
3. Have a WSU computer science GPA of 3.25
4. Complete an honors project or thesis

The student may either take CS 495 to develop an honors thesis or work independently with an advisor. In the latter case, 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 department. With the advisor or as part of CS 495, the student prepares and submits a proposal; upon approval, the completed project/thesis is presented to the department. A copy of the project/thesis must be submitted to the department library.

REPEATED COURSE POLICY

Students are allowed to attempt a particular computer science course no more than three times. For the purpose of this policy, an “attempt” occurs each time a student’s name appears on the final grade roster for a course.

PREREQUISITES

The prerequisites for computer science courses must be met with a “C” grade or better. Students who register for a course, but who have not met the prerequisites with a grade of “C” or better before the course begins, must drop the course.

PASS/NO CREDIT (P/NC) COURSES

Except for CS 491 (Practicum in Computer Science), students must take all courses for the major/minor on a grade-only basis. The P/NC option is available to non-majors unless otherwise noted. Courses offered on a pass/no credit-only or grade-only basis are so designated in the course descriptions.

ROCHESTER CENTER

The department’s majors and the minor are available through the 2+2 Program at the Rochester Center. Program articulations appear in the “WSU-Rochester Center” section:

- 2+2 Computer Information Systems (page 39)
- 2+2 Computer Science (page 39)
- 2+2 Computer Science - Bioinformatics (page 40)

COMPUTER SCIENCE PRACTICUM

WSU’s computer science practicum provides computer science majors with experience in a non-academic setting. It is intended to serve as an introduction to an application environment as well as to solidify many of the concepts learned in the classroom. For these reasons, it is to be taken only by students who are nearing the end of their program of study and who have little or no previous work experience. For those students who are currently employed, the practicum must provide them with work experience that is substantially different from any previous or current work experience. Students must apply for the practicum and be approved before beginning the work experience in order to receive credit for the practicum.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student’s major or minor program. The Department of Computer Science offers the following flag courses in the University Studies Program:

FLAG

Oral

- CS 411 Software Testing (3)
- CS 471 Object Oriented Design and Development (3)

Math/Critical Analysis

- CS 341 Data Structures and Software Design (4)

Writing

- CS 385 Applied Database Management Systems (3)
- CS 410 Software Engineering (3)
- CS 495 Computer Science Research Seminar (3)





Flag courses that can be used to satisfy Computer Science major/minor requirements are identified in the lists of required courses and electives in this section.

B.S. MAJOR - COMPUTER SCIENCE

68-69 S.H. (No Minor Required)


COMPUTER SCIENCE CORE- Required for All Options (32 S.H.)


Computer Science (CS)

- 234 Algorithms and Problem Solving I (4)
- 250 Algorithms and Problem Solving II (4)
- 310 Social Implications of Computing (3)
-  341 Data Structures and Software Design (4)
- 375 Computer Systems (4)
-  385 Applied Database Management Systems (3)
-  410 Software Engineering (3)
-  471 Object Oriented Design and Development (3)
- 4 S.H. approved Math or CS course in the mathematical foundations of algorithms (Course must be approved by the Computer Science Department Chair.)

COMPUTER SCIENCE ELECTIVES - Available to All Options

Computer Science (CS)

- 313 Networking and Telecommunications (3)
- 344 Introduction to Web Programming (3)
- Choose either of the following:
 - 368 Introduction to Bioinformatics (3) OR
 - 369 Spatial Information Processing (3)
- 405 Operating Systems (3)
-  411 Software Testing (3)
- 413 Advanced Networking and Telecommunications (3)
- 415 Principles of Programming Languages (3)

- 420 Computer Architecture (3)
- 425 Numerical Analysis (4)
- 430 Computer Graphics (3)
- 435 Theory of Computation (3)
- 433 Digital Image Processing (3)
- 440 Theory of Algorithms (3)
- 444 Human Computer Interaction (3)
- 445 Artificial Intelligence (3)
- 450 Compilers (3)
- 465 Topics: Computing Theory (1-3)
- 466 Topics: General Computing Applications (1-3)
- 472 Reusable Software Architectures (3)
- 482 Internet/Web Architecture and Development (3)
- 476 Distributed System: Concepts and Design (3)
- 485 Database Systems Design (3)
- ** 491 Practicum in Computer Science (6)
-  495 Computer Science Research Seminar (3)
- Physics (PHYS)**
 - 333 Microprocessor Electronics (4)

** Only 3 credits may be applied to the major or minor.

COMPUTER SCIENCE OPTION (CSCS)

37 S.H. in addition to core requirements above (No Minor Required)

REQUIREMENTS (19 S.H.)

Computer Science (9 S.H.)

- CS 405 Operating Systems (3)
- CS 415 Principles of Programming Languages (3)
- CS 435 Theory of Computation (3)

* “Additional Requirements” course as defined in Item 3, page 19.

Mathematics (8 S.H.)

MATH 160 Calculus I (4)
MATH 165 Calculus II (4)

Physics (2 S.H.)

PHYS 332 Computer Organization (2)

ELECTIVES (18 S.H.)

- Choose from list of “Computer Science Electives” (page 75) except for CS 405, CS 415, and CS 435
- At least 4 of the 6 courses must be 400-level CS courses.

GRADUATE SCHOOL RECOMMENDATIONS:

Students who wish to attend graduate school in computer science should complete both of the following:

- CS 495 at least one semester before graduation
- Additional mathematics and/or statistics courses

APPLIED COMPUTER SCIENCE OPTION

36-37 S.H. in addition to core requirements above (No Minor Required)

REQUIREMENTS (36-37 S. H.)

Course requirements in the Applied Computer Science Option are track-specific:

- Track 1: Bioinformatics (CSAB)
- Track 2: Computer Information Systems (CSAC)
- Track 3: Geographic Information Technology (CSAG)
- Track 4: Human Computer Interaction (CSAH)

TRACK 1: BIOINFORMATICS (CSAB)

37 S.H.

Mathematics (4 S.H.)

MATH 160 Calculus I (4)

Statistics (3 S.H.)

One of the following three courses:

- STAT 210 Statistics (3)
- STAT 303 Introduction to Engineering Statistics (3)
- STAT 305 Biometry (3)

Computer Science (15 S.H.)

- CS 368 Introduction to Bioinformatics (3)
- CS 468 Algorithms in Bioinformatics (3)
- CS 485 Database Systems Design (3)
- CS Electives 6 S.H.; at least 3 S.H. at the 400-level

Biology (11 S.H.)

- * BIOL 241 Basics of Life (4)
- * BIOL 242 Organismal Diversity (4)
- ☞ BIOL 310 Genetics (3)

Track Electives (3 S.H.)

Choose one of the following courses:

- CHEM 340 Survey of Organic Chemistry (4)
- CHEM 350 Principles of Organic Chemistry I (4)
- Any 400-level CS Electives course, other than CS 440

University Studies Program Required Courses (1† S.H.)

- CHEM 212 Principles of Chemistry I (4) [USP: Natural Sciences]
- CHEM 213 Principles of Chemistry II (4) [USP: Natural Sciences]

† 7 S.H. count as USP requirements and are not counted as part of the major.

MINOR IN BIOLOGY

Students can receive a minor in biology by taking CHEM 340 as the track elective, and an additional 12 S.H. of courses listed with the biology major in any of the four options.

GRADUATE SCHOOL RECOMMENDATIONS:

1. Students who intend to go to graduate school in computer science will need to complete both of the following:
 - MATH 165 in addition to MATH 160
 - CS 405, CS 415, and CS 435 (these may count as the electives for this track)
2. It is also recommended that students who intend to study in a bioinformatics graduate program take more biology and chemistry courses, such as BIOL 308, BIOL 430, and CHEM 351 in their open electives.

TRACK 2: COMPUTER INFORMATION SYSTEMS (CSAC)

36 S.H.

Mathematics (3 S.H.)

MATH 140 Applied Calculus (3)

Statistics (3 S.H.)

Choose one of the following two courses:

- STAT 210 Statistics (3)
- BUSA 220 Business Statistics (3)

Computer Science (15 S.H.)

Choose two of the following three courses:

- CS 344 Introduction to Web Programming (3)
- CS 472 Reusable Software Architectures (3)
- CS 482 Internet/Web Architecture and Development (3)
- CS 485 Database System Design (3)
- CS Electives 6 S.H.; at least 3 S.H. at the 400-level

Accounting (3 S.H.)

ACCT 212 Managerial Accounting Principles (3)

Management Information Systems (3 S.H.)

MIS 362 Management Information Systems (3)

Track Electives (9 S.H.)

Choose three of the following courses:

- BUSA 291 Legal Environment of Business (3)
- * ECON 201 Principles of Microeconomics (3) [USP: Social Science]
- * ECON 202 Principles of Macroeconomics (3) [USP: Social Science]
- FIN 360 Corporate Finance (3)
- MKTG 300 Principles of Marketing (3)
- OM 334 Operations Management (3)
- ☞ MGMT325 Organizational Dynamics (3)

University Studies Program Required Courses (0† S.H.)

ACCT 211 Financial Accounting Principles (3) [USP: Contemporary Citizenship]

Choose one of the following courses:

- ECON 201 Principles of Microeconomics (3) [USP: Social Science]
 - ECON 202 Principles of Macroeconomics (3) [USP: Social Science]
- † 6 S.H. count as USP requirements and are not counted as part of the major.

MINOR IN BUSINESS ADMINISTRATION:

Students can receive a minor in business administration by taking all the business electives courses. Note that students will have either ECON 201 or ECON 202 as a required University Studies course. Since the remaining economics course (ECON 201 or ECON 202) can also be used as a University Studies requirement, students will need two additional business courses (6 S.H.) beyond the CS major.

GRADUATE SCHOOL RECOMMENDATIONS:

Students who wish to attend graduate school in computer science will need to complete both of the following:

- MATH 160-165 in place of (or in addition to) MATH 140
- CS 405, CS 415, and CS 435 (two courses may count as the CS electives for this track)

TRACK 3: GEOGRAPHIC INFORMATION TECHNOLOGY (CSAG)

37 S.H.

Mathematics (4 S.H.)

MATH 160 Calculus I (4)

Statistics (3 S.H.)

Choose one of the following two courses:

- STAT 210 Statistics (3)
- STAT 303 Introduction to Engineering Statistics (3)

Computer Science (15 S.H.)

- CS 369 Spatial Information Processing (3)
- CS 433 Digital Image Processing (3)
- CS 469 Algorithms in Geographic Information Technology (3)
- CS electives 6 S.H. other than CS 440; at least 3 S.H. at the 400-level

Geosciences/Geography (14 S.H.)

- GEOS 240 Watershed Science (4)
- ☞ GEOS 280 Field & Analytical Methods I (2)

Choose 2-3 of the following courses:

- GEOS 315 Surficial Processes & Soils (4)
- GEOS 325 Environmental Science (3)
- ☞ GEOS 370 GIS and Imaging Techniques (3)
- ☞ GEOS 405 Current Topics (1-3)
- ☞ GEOS 415 Advanced Geomorphology (4)
- GEOS 420 Applied Hydrogeology (4)
- GEOS 425 Global Climate Change (3)
- GEOG 450 Cartography (3)

University Studies Program Required Courses (1† S.H.)

- GEOS 120 Dynamic Earth (4) [USP: Natural Sciences]
- GEOS 130 Earth and Life through Time (4) [USP: Natural Sciences]

† 7 S.H. count as USP requirements and are not counted as part of the major.

MINOR IN GEOSCIENCE:

Students can receive a minor in geoscience by taking one additional 3-4 credit geoscience course.

GRADUATE SCHOOL RECOMMENDATION:

Students who intend to go to graduate school in computer science will need to complete both of the following:

- MATH 165 in addition to MATH 160
- CS 405, CS 415, and CS 435 (two may count as the CS electives for this track)

TRACK 4: HUMAN COMPUTER INTERACTION (CSAH)

37 S.H.

Mathematics (4 S.H.)

MATH 160 Calculus I (4)

Statistics (3 S.H.)

Choose one of the following three courses:

- STAT 210 Statistics (3)
- STAT 303 Introduction to Engineering Statistics (3)
- PSY 231 Statistics (3)

Computer Science (15 S.H.)

- CS 344 Introduction to Web Programming (3)
- CS 444 Human-Computer Interaction (3)
- CS electives 9 S.H.; at least 6 S.H. at the 400-level

Psychology (9 S.H.)

- PSY 335 Human Factors Psychology (3)
- PSY 369 Cognitive Psychology (3)
- PSY 410 Sensation and Perception (3)

Track Electives (6 S.H.)

Choose any two CS or PSY courses at the 300- or 400-level or ART 311 (Graphic Design I) or ART 411 (Graphic Design II)

University Studies Program Required Courses (0† S.H.)

- PSY 210 General Psychology (3) [USP: Social Science]
- SOC 150 Introduction to Sociology (3) [USP: Social Science]
- STAT 350 Design of Samples and Surveys (3) [USP: Contemporary Citizenship]

†9 S.H. count as USP requirements and are not counted as part of the major.

MINOR IN PSYCHOLOGY

Students can receive a minor in psychology by taking two psychology courses as their track electives (and taking PSY 231 to meet their statistics requirement).

GRADUATE SCHOOL RECOMMENDATIONS:

Students who intend to go to graduate school in computer science will need to complete both of the following:

- MATH 165 in addition to MATH 160
- CS 405, CS 415, and CS 435 (these may count as the CS electives for this track)

B.S. MINOR - COMPUTER SCIENCE (COMS)

24 S.H.

CURRICULUM CHANGES PENDING

When this catalog went to press, the Department of Computer Science was in the process of defining curriculum revisions for the minor. For up-to-date information, please see the department website (<http://cs.winona.edu>).

COURSE DESCRIPTIONS

COMPUTER SCIENCE (CS)

115 - Using Personal Computers (3 S.H.)

This course is designed to provide students with a broad overview of uses of personal computers. Includes hands-on experiences; selection and use of software packages such as spreadsheets, data files, database management, statistics, personal management, education, and entertainment and Internet tools. This course does not count for major or minor elective credit.

116 - Web Technology (3 S.H.)

An introductory, hands-on course on Internet website development. The emphasis is for students to develop competence using web authoring tools and tools for incorporating multimedia into a web page in order to build a complex website focused on some area of academic

interest. Students will learn how to plan and publish websites and develop electronic portfolios that are exciting, efficient, accessible, and well-designed. Students will gain insight into the technology behind the World Wide Web by working with the HTML web markup language and the Javascript web programming language. No prior programming experience is necessary for this course.

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.

150 - An Overview of Computer Science (3 S.H.)

Course is designed for CS majors and non-majors who desire a survey of the field of computer science. After a brief history of the development of computers, students are introduced to such fundamental issues as problem-solving, algorithm design, representation and analysis, hardware design, computer organization, machine and assembly language, system software, software design and analysis, language models, and models of computation. Prerequisite: Qualifying score on the mathematics placement exam or MATH 050.

210 - Computers in a Global Society (3 S.H.)

To help understand the societal implications of computer technology, this course exposes students to some of the basic scientific foundations of computer technology. This course addresses such questions as: What happens when you hit a "submit" button on a Web form? What is going on when you "download" a file? How does a Web-search happen? Based on this technical perspective, the course looks at the role technology plays in the United States, as well as its effect on nations and cultures all over the world. The impact and significance of the information age is explored in several different contexts including economic, political, cultural, legal, environmental, historical, ergonomic, and psychological. Prerequisite: ENG 111.

234 - Algorithms and Problem Solving I (4 S.H.)

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.

235 - Algorithms I Companion (1 S.H.)

Course reinforces students' algorithm design and programming skills in the context of CS 234, Algorithms and Problem Solving I. Intended to be taken concurrently with CS 234; students work on problems directly related to topics introduced in that course. Prerequisite: Concurrent enrollment in CS 234 or instructor's permission. Pass/No Credit only.

250 - Algorithms and Problem Solving II (4 S.H.)

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. Prerequisites: CS 234.

251 - Algorithms II Companion (1 S.H.)

Course reinforces students' algorithm design and programming skills in the context of CS 250, Algorithms and Problem Solving II. Intended to be taken concurrently with CS 250; students work on problems directly related to topics introduced in that course. Prerequisite: Concurrent enrollment in CS 250 or instructor's permission. Pass/No Credit only.

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 include logic and proofs, set theory, relations, functions, complexity of algorithms, recursive definitions, recurrence relations, graphs, trees, counting methods, and discrete probability. Prerequisites: CS 234 and MATH 140, or MATH 160.

310 - Social Implications of Computing (3 S.H.)

Course provides an overview of the societal and ethical issues surrounding computer technology and involves students in discussions about the social implications of this technology. Primary topics include professional ethics; privacy; intellectual property; computer and network security; computer reliability; work and wealth; and the societal impacts of computing, networking, and information storage and retrieval. Although the course is not a programming course, topics will be covered at a level that requires understanding of computer programming. The course will involve extensive reading, writing, and discussion. Prerequisite: CS 250 and ENG 111.

313 - 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.

341 - Data Structures and Software Design (4 S.H.)

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 an approved MATH or CS course in mathematical foundations of algorithms.

344 - Introduction to Web Programming (3 S.H.)

Focus is on the fundamentals of the Web as a computer system, and the components used in developing client-side web-based applications. Topics include markup languages (HTML and its variants), scripting languages (e.g., JavaScript, Perl, PHP), applets including security and digital signatures, multimedia content, animation, and usability issues. In addition, the course will provide an overview of web history, web architecture, search engines, and web security. Students will develop a number of web pages and programs throughout the course and work with a team to develop an integrated, interactive website. Prerequisite: CS 250 or instructor's permission.

368 - Introduction to Bioinformatics (3 S.H.)

This course introduces students to the fundamental concepts of bioinformatics. Topics include introduction to DNA machinery and informatics, pairwise sequence alignments, bioinformatics programming, bioinformatics tools and database searches, genomics and proteomics, and introduction to DNA microarray analysis. Prerequisite: CS 250 and BIOL 241.

369 - Spatial Information Processing (3 S.H.)

An introductory course on spatial data processing. The emphasis is for students to understand the major phases of the spatial information processing cycle, including selecting an appropriate algorithm, collecting and analyzing data, and presenting the results. Applications of information technology in the fields of geographic information processing and/or bioengineering will be examined. Prerequisite: CS 250 and MATH 160 or instructor's permission.

375 - Computer Systems (4 S.H.)

This course is an overview of the hardware and software of computer systems. Topics include computer organization and computer architecture, data representation, assembly language, memory systems, operating systems, networking and security, run-time environments, and advanced topics such as RISC vs. CISC, non von Neumann architectures, and Java virtual machine. Prerequisite: CS 250.

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 375.

410 - Software Engineering (3 S.H.)

The course deals with the current trends of software engineering principles and techniques for methodical construction of large, complex 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 341 and ENG 111.

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.

413 - Advanced Networking and Telecommunications (3 S.H.)

Advanced topics in computer networking are studied. Emphasis is on the TCP/IP protocol and topics such as security, common network applications, and network management. The course emphasizes an advanced lab where students build a network, learn how to use network management tools, and write network applications. Prerequisite: CS 313 and CS 375.

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 375.

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 234 and MATH 260.

430 - Computer Graphics (3 S.H.)

A study of computer graphics theories, algorithms, and techniques. Topics include display techniques, primitives and attributes, interactive graphics, transformations, 3-D modeling and viewing, graphics package design, picture structure, lighting and shading, and color theory. Prerequisite: CS 341.

433 - Digital Image Processing (3 S.H.)

A study of digital images and their properties as well as algorithms and techniques for digital image processing. Topics include image acquisition, enhancement in both spatial and frequency domains, segmentation, and compression. Offers an introduction to object recognition approaches. Prerequisite: CS 341 and MATH 165.

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 an approved MATH or CS course in mathematical foundations of algorithms.

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. CS credit will be given for only one of these courses: CS 440, CS 468, or CS 469. Prerequisite: CS 341.

444 - Human Computer Interaction (3 S.H.)

This course examines fundamental principles of human factors issues related to the development of software and the design of interactive systems. Topics include user-centered design, usability tests, tradeoffs between interaction devices, alternative input-output methods, design of interfaces for special audiences, and construction of appropriate error messages. Projects will involve implementation and evaluation of graphical user interfaces (GUIs) and web pages. Prerequisite: CS 341, CS 344, and PSY 210.

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 341.

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, 0/1 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 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.

468 - Algorithms in Bioinformatics (3 S.H.)

Theory-oriented approach to the design and analysis of contemporary algorithms, and their applications to bioinformatics. This course offers an exposition of the algorithmic principles driving advances in the field of bioinformatics. Data modeling, algorithm design techniques such as dynamic programming and divide-and-conquer, and machine learning algorithms are discussed in the contexts of genomics and proteomics. CS credit will be given for only one of these courses: CS 440, CS 468, or CS 469. Prerequisite: CS 341, CS 368, and BIOL 310.

469 - Algorithms in Geographic Information Technology (3 S.H.)

The design and analysis of contemporary algorithms and their applications to geographic information technology. This course offers an exposition of the algorithmic principles driving advances in this application field. Data modeling, algorithm design techniques such as backtracking and divide-and-conquer, and machine learning algorithms are discussed in the context of the application field. CS credit will be given for only one of these courses: CS 440, CS 468, or CS 469. Prerequisite: CS 341, CS 369, and GEOS 280.

471 - 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 and CMST 191.

472 - Reusable Software Architectures (3 S.H.)

This course investigates the software concepts that promote reuse of software architectures. In particular, the influence of object technology on software design and reuse is studied. Domain modeling methods, which model the application domain as a software product family from which target systems can be configured, are investigated. The course also covers reusable software patterns including architecture patterns and design patterns, software components, and object-oriented frameworks. State-of-the-art component technologies will be used to experiment with the concepts of this course. Prerequisite: CS 471 or instructor's permission.

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.

482 - Internet/Web Architecture and Development (3 S.H.)

This course will emphasize the distributed software architecture for web-based software and web services design and development. J2EE architecture will be used to provide a basis for developing software that will run on the client-side, the server-side, in a distributed system, or in a standalone environment. Topics include server components, servlets, Java server pages, Javabeans, session control and security, EJBs, transaction processing, database connections, and connection pools. A

major application development environment will be used to design, develop, test, and deploy applications. Students will develop a distributed web application. Prerequisite: CS 471 and either CS 344 or CS 472, or instructor's permission.

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 and CS 341.

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.)

Students work a minimum of 300 hours in an application environment under the supervision of a computer science professional. Open only to junior or senior declared CS majors who have satisfied specific requirements. Contact the Computer Science Practicum Coordinator, or visit the department website, for more information on these requirements. Permission of coordinator is required. Pass/No Credit only. Only 3 S.H. apply to CS majors.

495 - Computer Science Research Seminar (3 S.H.)

This course is an undergraduate research seminar designed for upper-level computer science students. Students choose, with the help of faculty, an undergraduate research thesis topic. Computer science research methods are introduced, and the various forms of technical writing common to computer science are studied. Students conduct their research, write a technical paper as a result, and present their findings during the year-end senior technical conference. Students also read and critically review several computer science conference and journal articles. Prerequisite: ENG 111, CS 341, at least two 400-level CS courses.

COMPUTER SCIENCE EDUCATION (CSED)

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 primary emphasis is on selecting and evaluating courseware; using teacher utilities; and the 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 primary 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; Fax: 507-457-5882)
Rochester Center, Room EA 201 (507-285-7488; Fax: 507-285-7170)
www.winona.edu/counseloreducation
Tim Hatfield (Chairperson)

FACULTY

Gaylia Borrer, Professor; B.S., Davis & Elkins College; M.S., West Virginia University; Ph.D., University of Iowa; 1989 -
Mary Faucett, Associate 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 -
Nicholas Ruiz, Professor; B.A., Ph.D., University of Minnesota; 1989 -
Colin Ward, Associate Professor; B.A., University of Northern Colorado; M.S., Winona State University; Ph.D., Oregon State University; 1998 -

PURPOSE

The department's major purpose is to provide quality education to persons seeking advanced study in counseling and related professions and to provide selected undergraduate and community service courses. The department offers elective courses for undergraduates; however, departmental concentrations lead only to the Master of Science degree. (See the *Graduate Catalog* for program descriptions.)

PASS/NO CREDIT (P/NC) COURSES

Except for internships and practica, undergraduate students must take all courses in their major, minor, options, concentrations and licensures on a grade-only basis. The P/NC option is available to non-majors unless otherwise noted. Courses offered on a pass/no credit-only or grade-only basis are so designated in the course descriptions.

COURSE DESCRIPTIONS

200 - Career/Life Decision Making (3 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. P/NC only.

220 - Emotions and Behavior (3 S.H.)

This course focuses on promoting students' self-awareness and personal growth, with significant learning opportunities structured through in-class and out of class individual projects, small group work, and large group experiential activities.

432 - Stress Management (3 S.H.)

This course provides an introduction to important concepts, issues, skills, and interventions related to the identification and management of personal stress.

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.

CYTOTECHNOLOGY

Pasteur Hall, Room 220 (507-457-5271)
http://bio.winona.edu/biohp/acad_deg.htm

WSU DIRECTOR, CYTOTECHNOLOGY

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

ADJUNCT FACULTY

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

PURPOSE

WSU's Cytotechnology Program 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 WSU University Studies requirements. The fourth year is spent in a clinical setting at one of the cytotechnology programs affiliated with WSU, where the student receives intensive training in the sub-disciplines and techniques of cytotechnology.

Before they can apply for the year of clinical training, students must complete three years (96 semester hours) at WSU with a minimum grade point average of 3.00. 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.

During the clinical year, each student registers for the appropriate number of credits at WSU, and his or her progress is evaluated each semester. Upon successful completion of the clinical program, the student receives a certificate in cytotechnology 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.

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.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Biology Department offers the following flag courses in the University Studies Program:

FLAG

Oral

BIOL 307	Cell Biology Laboratory (1)
BIOL 309	Developmental Biology (3)
BIOL 409	General Microbiology (4)
BIOL 315	Environmental Biology (3)
BIOL 423	Ecosystem Ecology (3)
BIOL 460	General Parasitology (3)
BIOL 462	Parasitology (4)

Math/Critical Analysis

BIOL 310	Genetics (3)
BIOL 499	Student Research (3)

Writing




BIOL 308	Cell Biology (3)
BIOL 323	General Physiology (5)
BIOL 415	Ecology of Large Rivers (4)
BIOL 431	Molecular Biology Laboratory (4)
BIOL 445	Immunology (3)



Flag courses that can be used to satisfy Cytotechnology major requirements are identified in the lists of required courses and electives in this section.

B.S. MAJOR - CYTOTECHNOLOGY (CYTO)

82 S.H. (No Minor Required)

REQUIRED MAJOR AREA COURSES (32 S.H.)




BIOL 241	Basics of Life (4)
BIOL 242	Organismal Diversity (4)
 BIOL 308	Cell Biology (3)
 BIOL 310	Genetics (3)
 BIOL 307	Cell Biology Laboratory (1)

BIOL 201	Human Anatomy (4)
 BIOL 323	General Physiology (5)
 BIOL 409	General Microbiology (4)
BIOL 470	Histology (4)

Note: BIOL 241 and 242 should be taken prior to BIOL 201, 307, 308, and 310. BIOL 308 should be taken prior to or concurrently with BIOL 307. BIOL 323 should be taken after BIOL 201. BIOL 409 and 470 should be taken after BIOL 308, 310 and 307.

MAJOR ELECTIVES (6 S.H.)

Choose at least 6 S.H. from the following courses:

 BIOL 309	Developmental Biology (3)
 BIOL 445	Immunology (3)
 BIOL 460	Parasitology (3)
CHEM 340	Organic Survey (4)

ADDITIONAL REQUIREMENTS (12 S.H.)

Chemistry (8 S.H.)

* CHEM 212	Principles of Chemistry I (4)
* CHEM 213	Principles of Chemistry II (4)

Mathematics (4 S.H.)

MATH 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.

COURSE DESCRIPTIONS

See specific program areas (i.e., biology, chemistry, and mathematics) in this catalog for descriptions of the courses cited for this major.

ECONOMICS AND FINANCE

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

Daniel Kauffman (Chairperson)

Economics: Gallegos, Hyle, Kauffman, Manrique, Pevas, Salyards

Finance: Kesler, Kim, Murray, Wrolstad

FACULTY

Alejandro Gallegos, Professor; B.A., Instituto Tecnológico y de Estudios Superiores de Monterrey; M.A., Ph.D., University of Wisconsin-Milwaukee; 1988 -

Matthew Hyle, Professor; B.A., Indiana University; Ph.D., University of Maryland; 1988 -

Daniel E. Kauffman, Professor; B.A., St. Cloud State University; M.A., Ph.D., University of Nebraska; 1983 -

David W. Kesler, Professor; B.S., Pacific Lutheran University; M.A., M.B.A., University of Kansas; Ph.D., University of Wisconsin-Milwaukee; 1984 -

Chan-Wung Kim, Associate Professor; B.A., SungKyunKwan University; M.B.A., Seoul National University; Ph.D., University of Iowa; 2002 -

Gabriel Manrique, Professor; B.A., Ateneo De Manila University; M.A., Ohio University; Ph.D., University of Notre Dame; 1989 -

Michael Murray, Professor; B.A., University of South Florida; M.A., Ph.D., University of Notre Dame; 1986 -

Mary Ann Pevas, Professor; B.A., Dominican College; M.A., Manhattan College; Ph.D., University of Notre Dame; 1990 -

Donald M. Salyards, Professor; B.A., Graceland College; M.A., Ph.D., Kansas State University; 1975 -

Mark Wrolstad, Professor; B.A., Luther College; M.B.A., University of Florida; Ph.D., University of Colorado; 1989 -

PURPOSE

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 (P/NC) COURSES

Except for internships, students must take all courses in their major, minor, and options on a grade-only basis. The P/NC option is available to non-majors unless otherwise noted. Courses offered on a pass/no credit-only or grade-only basis are so designated in the course descriptions.

GRADUATION REQUIREMENTS

For a checklist of the University's graduation requirements, see page 22. Specific requirements for economics and finance majors are as follows.

FOR ECONOMICS MAJORS

1. Complete all coursework required for the major.
2. Achieve a grade of "C" or better in all courses counted toward the major.
3. Complete at least 18 semester credits in economics courses offered by the Economics Department at WSU, including ECON 499.

* "Additional Requirements" course as defined in Item 3, page 19.

FOR FINANCE MAJORS

1. Complete all coursework required for the major.
2. Achieve a grade of "C" or better in all courses counted toward the major.
3. Sixty-four non-business credits are required for finance majors. Of the math, statistics, and economics courses required for the finance major, 6 credits of math and statistics and 9 credits of economics can be counted toward the requirement for 64 non-business credits.
4. Complete a minimum of 50% of the business requirements for the finance major at WSU.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Economics and Finance Department offers the following flag courses in the University Studies Program:

ECONOMICS FLAGS

Oral

ECON 499 Seminar in Economics (3)

Writing

ECON 303 Intermediate Macroeconomics (3)

ECON 304 Money and Banking (3)

FINANCE FLAGS

Oral

FIN 421 Institutional Investment & Financial Markets (3)

Math/Critical Analysis

FIN 335 Forecasting Methods (3)

Flag courses that can be used to satisfy Economics and Finance major/minor requirements are identified in the lists of required courses and electives in this section.

B.A. MAJOR - ECONOMICS (ECON)

45-46 S.H. (Minor Required)

REQUIRED COURSES (27-28 S.H.)


Economics (18 S.H.)


ECON 201 Principles of Microeconomics (3)

ECON 202 Principles of Macroeconomics (3)


ECON 302 Intermediate Microeconomics (3)

 ECON 303 Intermediate Macroeconomics (3)

 ECON 304 Money and Banking (3)

 ECON 499 Seminar in Economics (3)

Statistics/Quantitative Tools (9-10 S.H.)


 FIN 335 Forecasting Methods (3)

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:

 BUSA 220 Business Statistics (3) OR

STAT 210 Statistics (3)

ELECTIVES (18 S.H.)

Additional credits at the 300- or 400-level in economics.

B.A. MINOR - ECONOMICS (ECON)

24 S.H.

REQUIRED COURSES (15 S.H.)

ECON 201 Principles of Microeconomics (3)

ECON 202 Principles of Macroeconomics (3)

ECON 302 Intermediate Microeconomics (3)

 ECON 303 Intermediate Macroeconomics (3)

 ECON 304 Money and Banking (3)

ELECTIVES (9 S.H.)

Additional credits at the 300- or 400-level in economics.

B.S. MAJOR - FINANCE (FIA; FIB)

69-70 S.H. (No Minor Required)

BUSINESS CORE (39-40 S.H.)

Mathematics (3-4 S.H.)

MATH 140 Applied Calculus (3) OR

MATH 160 Calculus I (4)

Accounting (6 S.H.)

ACCT 211 Financial Accounting Principles (3)

ACCT 212 Managerial Accounting Principles (3)

Statistics (3 S.H.)

 BUSA 220 Business Statistics (3) OR

STAT 210 Statistics (3)


Business Administration (15 S.H.)

 BUSA 320 Intermediate Business Statistics (3) OR

STAT 310 Intermediate Statistics (3)

BUSA 291 Legal Environment of Business (3)

MIS 312 Business Computer Programming (3)

 MGMT 325 Organizational Dynamics (3)

OM 334 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.)

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 440 International Finance (3)

FIN 463 Cases in Financial Management (3)

OPTION A (15 S.H.) (FIA)

Option A is applicable for students planning to seek a career immediately after graduation. Choose five 400-level courses in finance or economics. At least two of the courses must be in finance.

OPTION B (15 S.H.) (FIB)

Option B is applicable for students planning to do advanced study in finance.

REQUIRED (6 S.H.)

FIN 422 Portfolio Theory and Security Valuation (3)

FIN 423 Derivative Securities (3)

OPTIONAL COURSES (9 S.H.)

Select three courses from the following list:

BUSA 340 Management Science (3)

MIS 342 Advanced Business Computer Applications (3)

MIS 462 Decision Support Systems (3)

ECON 405 Monetary Theory and Policy (3)

ECON 425 Managerial Economics (3)

FIN 480 Independent Studies in Finance (1-3)

MATH 165 Calculus II (4)

MATH 210 Foundations of Mathematics (4)

MATH 430 Operations Research: Linear Programming (4)

STAT 360 Regression Analysis (3)

COURSE DESCRIPTIONS

ECONOMICS (ECON)

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. Recommended prerequisite: University Studies math requirement.

202 - Principles of Macroeconomics (3 S.H.)

National income analysis; aggregate demand-and-supply; money and banking; business cycles, monetary and fiscal policy. Recommended prerequisite: University Studies math requirement.

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: BUSA 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.

390 - Economics of the Middle East (3 S.H.)

The Middle East possesses two-thirds of the world's oil reserves, which the rest of the world uses as a basic input for its economies. In this course, students study the economics of oil and other natural resources of the region, such as the rapidly growing population and its impact on the labor markets as well as the impact all these factors have on scarce basic necessities such as water and food. The course also examines a brief history of ongoing conflicts within the region and their pull on increasing military spending within the context of the current Middle East economies. Prerequisite: ECON 202 or instructor's permission.

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.

401 - Entrepreneurship and the American Economy (3 S.H.)

This course focuses on the role of entrepreneurs in the development of the U.S. economy and the methods used by successful entrepreneurs. The course includes sections on American economic history and on competing economic systems with an emphasis on the role of entrepreneurship in the free-market system. Prerequisite: ECON 201, ECON 202, ACCT 211, FIN 201 or FIN 360. Grade only.

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: BUSA 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 are 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.

430 - Asian Economies in Transition (3 S.H.)

This course focuses on the economic transitions that have occurred in Asia. It will include a study of the different economic development strategies and policies that have been used in various Asian countries and a study of which policies have been successful. It will use a comparative approach to examine similarities and differences among countries. Asia's efforts at regional integration, globalization and development of its financial markets will also be included in the course. Prerequisites: ECON 201 and ECON 202 or instructor's permission. Grade only.

435 - The North American Economies (3 S.H.)

This course studies the economic evolution of Canada, Mexico, and the United States. It traces the main periods and events of their economies since they became independent nations. Their economic policies are described, analyzed, and compared. Special emphasis is given to the analysis of their economic interaction that has produced the United States-Canada Trade Area and the North American Free Trade Agreement (NAFTA). Prerequisites: ECON 201 and ECON 202 or instructor's permission. Grade only.

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 (FIN)

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 BUSA 220 or its equivalent, or instructor's permission. Students are strongly advised to take intermediate statistics before taking this course. 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: BUSA 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, BUSA 220 or STAT 210, and one of the following courses- MATH 110, MATH 120, MATH 140, or MATH 160. 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

Gildemeister Hall, Room 152 (507-457-5350; Fax: 507-457-5354)

www.winona.edu/education/advising

Celeste Miller (Chairperson)

FACULTY

Richard Bowman, Professor; B.S. Ed., M.S. Ed., Ohio University, Athens; Ph.D., University of Toledo (OH); 1995 -

Nancy Ann Eckerson, Associate Professor; B.A., M.S., Minnesota State University-Mankato; Ph.D., Iowa State University; 2000 -

John Gustafson, Associate 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, Associate Professor; B.A., College of St. Catherine; M.S., Winona State University; 1980 -

Jeanette Karjala, Professor; B.A., Western Washington University, Bellingham; Fifth Year and M.A., Western Washington University, Bellingham;

Ph.D., University of North Dakota, Grand Forks; 1992 -

Celeste Miller, Associate Professor; B.A., University of Arizona; M.Ed., University of Maryland; Ph.D., Pennsylvania State University; 1997 -

Melanie Reap, Associate Professor; B.S., M.S., Texas A & M University; Ph.D., University of Oklahoma; 1999 -

James Reineke, Associate Professor; B.A., B.S., University of Minnesota-Twin Cities; Ph.D., Michigan State University; 1996 -

J. Ann Rethlefsen, Associate Professor; B.A., Colby College; M.S., University of Wisconsin-Milwaukee; Ed.D., Saint Mary's University of Minnesota; 2004 -

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; 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 -

Rhea Walker, Associate Professor; B.S., M.A., University of Northern Iowa; Ph.D., Iowa State University; 2004 -

Penny Warner, Associate Professor; B.S., M.S., University of Wisconsin; Ph.D., University of Minnesota; 2000 -

Maudie Williams, Professor; B.S., Fort Valley State College; M.S., Tuskegee Institute; Ed.D., University of Florida; 1989 -

Rod Winters, Associate Professor, B.A., Central College; M.A., University of Northern Colorado; Ed.D., University of Northern Iowa; 1998 -

TEACHER EDUCATION OVERVIEW

The Education Department delivers courses in the professional education sequence required of all teaching majors. In addition, the department delivers the Business Education major and the Training and Development certificate program.

As a department, we seek to integrate into pre-service teacher education the knowledge, skills, and professional dispositions necessary to be an effective educator. This includes (1) a philosophy of education; (2) knowledge of the individual learner; (3) understanding of the opportunities, objectives, and responsibilities of schooling in a democratic society; (4) practice toward teaching effectively; and (5) the professionalism to work with others as leaders in promoting continual improvement of schools.

Teacher education program requirements outlined under each major are subject to change as Minnesota Board of Teaching licensure rules change. Students should check with their program advisor and the advising website (www.winona.edu/education/advising) regularly for current program/licensure requirements.

PASS/NO CREDIT (P/NC) COURSES

Except for internships and practica, students must take all courses in the major, minor, certificate, and licensures on a grade-only basis. The P/NC option is available to non-majors unless otherwise noted. Courses offered on a pass/no-credit-only or grade-only basis are so designated in the course descriptions.

REPETITION OF COURSES

No Education Department course may be repeated more than once due to withdrawal or earning a grade less than "C."

INCOMPLETE GRADES

The grade of Incomplete ("I") may be granted at the discretion of the course instructor in special cases in which, for reasons beyond the student's control, all course assignments were not finished though the student is passing all other aspects of the course. The Incomplete must be resolved by the second week of the next semester in which the student enrolls for any course that serves as a prerequisite for other courses.

TEACHER EDUCATION PROGRAMS

Elementary Education, K-6 with :

- Early Childhood Emphasis, Birth- 6
- Communication Arts and Literature, 5-8
- Mathematics, 5-8
- Science, 5-8
- Social Studies, 5-8

Business Education, 5-12

- Keyboarding for Computer Applications endorsement, K-8
- Communication Arts and Literature, 5-8 and 5-12
- Health Education, 5-12
- Mathematics, 5-8 and 5-12
- Music: Instrumental and Classroom, K-12
- Music: Vocal and Classroom, K-12
- Physical Education, K-12

DAPE endorsement, K-12

Science: Chemistry, 9-12+General Science 5-8

Science: Chemistry, 9-12

Science: Earth, 9-12 + General Science 5-8

Science: Life, 9-12 + General Science 5-8

Science: Life, 9-12

Science: Physics, 9-12 + 5-8 General Science

Science: Physics, 9-12

Social Studies, 5-12

Special Education: Developmental Adapted Physical Education, Pre-K-12

Special Education: Developmental Disabilities, K-12

Special Education: Learning Disabilities, K-12

Visual Arts, K-12

World Languages French, K-12

World Languages German, K-12

World Languages Spanish, K-12

The following Education Department majors are available at the Rochester Center:

- K-6 with Middle Level Communication Arts and Literature 5-8 Specialty
- K-6 with Middle Level Social Studies 5-8 Specialty

All other majors are available only on the Winona campus. See page 41 for the articulation of the 2+2 programs available on the Rochester Center campus.

ADMISSION TO THE WSU TEACHER EDUCATION PROGRAM

- I. Attend the Admissions Meeting the semester before you wish to start taking classes. An Admissions Meeting is scheduled early each semester. At this mandatory meeting, students review the criteria for admission and complete an application form; students are given an Admissions Folder to begin documenting their attainment of the admission criteria. (If a student has been accepted previously but did not start the education sequence the following semester, the student must attend a new admissions meeting and be re-accepted under the criteria in effect for that semester.)
- II. Document attainment of minimum admission criteria by submitting a complete Admissions Folder to the Education Department no later than the designated due date. The Admissions Folder is complete only if it contains highlighted documents that demonstrate the admission criteria in effect during that semester.

Current minimum admission criteria, which must be documented include:

1. 30 semester hours of completed credit of which no more than 2 semester hours may be pass/no credit hours. All transfer credits to be considered for admission, must have been accepted by WSU and be designated on the credit evaluation prepared by the WSU Office of Admissions.
2. Cumulative GPA of 2.75 or better (highlight on transcript).

Note: Students who do not meet the 2.75 GPA may check a box ("Alternate Admission Requests") on the application form, requesting the Admission Committee to consider an alternate GPA. The alternate GPA calculation is based upon the last 30 semester credits completed or quarter credit equivalent. The calculation must include all semester or quarter hour coursework in any given semester needed to meet the 30-semester hour credit requirement.

3. Grade of "B" or better in a 3-credit college level writing course (ENG 111 if taken at WSU).
4. Grade of "B" or better in a 3-credit college level speech course (CMST 191 if taken at WSU).
5. Grade of "C" or better in a 3-credit college level math course (MATH 100 or higher at WSU).
6. Official score report on all three sections of the Pre-Professional Skills Test (PPST): Math, Reading, and Writing. It will take up to 8 weeks from the time a student completes the exam for results of the Writing section to be processed and reported to WSU. It is the student's responsibility to take the test at least two months before the deadline for completing the Admissions Folder. (Competency in each of the sections is not required for admittance to the WSU program, but it is required to obtain licensure.) Register for these tests online at www.ets.org/praxis, or call the La Crosse test site at 608-785-8968 or the Rochester test site at 507-292-9713.
7. Evidence of having passed the Education Department Writing Proficiency exam. All applicants for admission to the education program are required to pass this exam, which is given during the Admissions Meeting. A \$20 fee is payable by check at the time of this exam. Currently enrolled WSU students may have this fee billed to their tuition account.
8. Copy of completed Degree Audit form prepared by the WSU Office of Admissions for students who have transferred from another institution.
9. Affirmation of a record of good citizenship on the completed admission form.

Notes:

1. Admission to teacher education is limited each semester. Additional criteria are used to determine admission to the program if the number of applicants exceeds the number of available seats.
2. The University reserves the right to consider as part of the admission and retention policy those dispositions, general health, and scholastic achievement, or other standards as may be appropriate. Students must adhere to the WSU Student Conduct Policy.

RETENTION IN WSU TEACHER EDUCATION PROGRAM

Assistance Plan

Students identified by teacher education faculty as needing assistance in academic, personal, or professional domains are required to attend a review meeting to be called by the Education Department Chairperson and to include the education faculty member involved, appropriate department chairperson(s), and the student's advisor to demonstrate corrective action in the identified areas of concern.

* "Additional Requirements" course as defined in Item 3, page 19.

Assistance plans will likely draw upon services such as those provided by the Counseling Center, the Writing Center, Academic Assistance Center, Student Support Services, and the Advising and Retention Office. If a student withdraws from the program for any reason, she or he must reapply for admission to continue in the program.

Continuation in Teacher Education

- The successful completion of conditions outlined in the student assistance plan will be required for continuation in teacher education programs under the following circumstances:
 - A grade of less than "C" in any Education Department course
 - Withdrawal (WD) from the same Education Department course more than once, or withdrawal (WD) from two different Education Department courses in two different semesters
 - Failure to meet GPA requirements outlined below
- Teacher education students must maintain at least a 2.75 GPA in order to be admitted to student teaching. Teacher education students who do not meet this GPA requirement may not student teach until they meet the 2.75 requirement.
- Student assistance plans and academic warning letters are treated as part of the student's teacher education record.

Dismissal from Teacher Education Program

Students may be dismissed from the Teacher Education Program for either of the following reasons:

- Failure to document the fulfillment of the commitments of a student assistance plan.
- Breach of ethical responsibilities, as stated in the Minnesota Code of Ethics for Teachers in the *Field Experience Handbook for the WSU Teacher Education Program*, the *Teacher Education Program Guide*, and the WSU Student Conduct Policies. A student dismissed for an ethical violation will not be allowed to continue in any field experience that semester, will be dropped from the Teacher Education Program at the end of the semester, and will not be readmitted to the major.

Student appeals must follow the process outlined in the *Field Experience Handbook for the WSU Teacher Education Program* and the *Teacher Education Program Guide*.

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 at 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 requirements.

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, such as coaching, music tours, classes, etc. Applications are available in the Student Teaching Office (Gildemeister Hall, Room 124A).

Student Teaching Progression Policy

If the classroom supervisor or the University supervisor has any concern(s) regarding the student teacher's performance (academic or professional), it is imperative that the concern be addressed immediately. All three parties—the classroom supervisor, the University supervisor and the student teacher—will meet and discuss all concerns. It is important that all three parties share a common understanding of the concern(s) and the impact upon the completion of a successful student teaching experience. A clear warning will be given, and a written plan developed, stating clear expectations and the consequences if those expectations are not met within a specified timeline. If students do not satisfactorily complete student teaching after remediation, they may apply to graduate with a Professional Studies degree.

LICENSURE: ELEMENTARY AND SECONDARY TEACHING

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 of Effective Practice
- Verify the completion of an approved teacher preparation program
- Meet the prescribed scores on the Pre-Professional Skills Tests (Praxis I-PPST) in reading, writing, and mathematics as set by the Minnesota Board of Teaching
- Meet the prescribed scores on the Principles of Learning and Teaching and a test of content knowledge in each area of their licensure (Praxis II).
- The Praxis II subject assessments include:
 - Business Education
 - Chemistry
 - Communication Arts & Literature, Grades 5-8
 - Communication Arts & Literature, Grades 5-12
 - Early Childhood Education
 - Earth and Space Science
 - Elementary Education
 - French
 - German
 - Health
 - Mathematics, Grades 5-8
 - Mathematics, Grades 5-12
 - Music (Instrumental/Vocal)
 - Physical Education
 - Physics
 - Science, Grades 5-8
 - Social Studies, Grades 5-8
 - Social Studies, Grades 5-12
 - Spanish
 - Special Education
 - Visual Arts

WSU is in full compliance with Title II regulations and its reporting structure. Based on scores reported for the 2003-2004 reporting period, WSU's institutional pass rate is 96%. The statewide pass rate was 95% in 2003-2004.

In the fall semester of 2005, a total of 1,139 students were enrolled in the WSU teacher preparation program. Of those students, 266 were in supervised student teaching experiences, which required a total of 600 hours in 15 weeks. The student-faculty ratio in supervised student teaching experiences is 264 students to 32 full- and part-time faculty.

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. Students should contact the Licensure Certification Officer, Paula O'Malley, (Gildemeister Hall, Room 124B) regarding any changes in licensure requirements for particular states.

ELEMENTARY TEACHING LICENSES

- Elementary Education with Early Childhood Emphasis (Birth-Grade 6):** A teacher of early childhood education is authorized to design, implement, and evaluate developmentally appropriate learning experiences for young children from birth through grade 6 in a variety of early childhood or public school P-6 settings. The early childhood education/elementary teacher collaborates with families, colleagues, and related service personnel to enhance the learning of all young children. Students in this program will be eligible for Early Childhood Education and Elementary Education Licensure.
- K-6 Middle Level with a Content Specialty (K-8):** A teacher with this license is certified to design, implement, and evaluate developmentally appropriate learning experiences for children in kindergarten through grade 8. A K-6 teacher with content specialty also designs, implements, and evaluates learning experiences in a specific content area in grades 6 through 8 and collaborates with families, colleagues, and related service personnel to enhance the learning of school-aged children and youth.

Add-On Licensure for Candidates with Prior Licensure

- **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 P-3 settings. The early childhood education teacher collaborates with families, colleagues, and related service personnel to enhance the learning of all young children.
- **Pre-Primary Specialty (Age 3 to Grade 3):** A teacher with this license is certified to design, implement, and evaluate developmentally appropriate learning experiences for young children from age three through grade 3 in a variety of school settings. Teachers collaborate with families, colleagues, and related service personnel to enhance the learning of young children.
- **Middle Level Content Specialty (Grade 5-8):** A teacher with this license is certified to design, implement, and evaluate developmentally appropriate learning experiences for children in grades 5-8. A K-6 teacher with an add-on content specialty also designs, implements, and evaluates learning experiences in a specific content area in grades 5 through 8 and collaborates with families, colleagues, and related service personnel to enhance the learning of school-aged children and youth.

SECONDARY TEACHING LICENSES

For detailed information regarding the course requirements in secondary teaching majors, please refer to the associated department in this catalog; for detailed information about Business Education, see page 91. Secondary teaching majors are required to complete the Professional Education Sequence in addition to their major content course requirements.

5-12 Majors (Teaching)

- B.S. Major - Business Education (BEDT)
- B.S. Major - Chemistry (CHET)
- B.S. Major - Communication Arts and Literature (CALT)
- B.S. Major - Earth Science (ESCT)
- B.S. Major - Life Science (BLST)
- B.S. Major - Mathematics (MTHT)
- B.S. Major - Physics (PHST)
- B.S. Major - School and Community Health Education (SCHT)
- B.S. Major - Social Science/History (SSHT)

9-12 Majors (Teaching)

- B.S. Major - Chemistry (CHET)
- B.S. Major - Life Science (BLST)
- B.S. Major - Physical Science (CPST)
- Note:** Offered by the Chemistry Department.
- B.S. Major - Physical Science (PPST)
- Note:** Offered by the Physics Department.

K-12 Majors (Teaching)

- B.S. Major - Art (ART)
- B.S. Major - French (FRNT)
- B.S. Major - German (GRMT)
- B.S. Major - Music (MUSI or MUSV)
- B.S. Major - Physical Education (PET)
- B.S. Major - Spanish (SPNT)
- B.S. Major - Special Education: Learning Disabilities (SELD)
- B.S. Major - Special Education: Developmental Disabilities (SEDD)

PROFESSIONAL EDUCATION SEQUENCE FOR SECONDARY MAJORS (32-36 S.H.)

Note: These courses require formal admission to the teacher education program.

- EDUC 304 Human Development and Learning: Middle Level and K-12 (4) OR
- EDUC 305 Human Development and Learning: Secondary (4)
- EDUC 308 Human Relations and Student Diversity (3)
- EDUC 311 Instructional Planning and Assessment: Middle Level and K-12 (3) OR
- EDUC 312 Instructional Planning and Assessment: Secondary (3) OR
- EDUC 429 Secondary Reading and Teaching Strategies (4)
- EDUC 449 Middle Level Philosophy, Organization and Interdisciplinary Planning (3)
- EDUC 459 The Professional Educator (3)
- EDUC 465 Student Teaching - Senior High School (12 - 16)

LICENSURE REQUIREMENTS FOR POST-BACCALAUREATE STUDENTS

A Bachelor of Arts graduate who holds a degree from WSU or another accredited institution may qualify for teacher licensure by satisfying the following requirements:

1. Complete the Professional Education Sequence (including student teaching in the major field). The student must have a minimum of a "C" grade in each course in the Professional Education Sequence before he or she is allowed to student teach.
2. Anyone applying for a Minnesota teaching license must complete a course that covers the effects of drugs and alcohol and an approved course in human relations. In addition, Minnesota and Wisconsin both require verification of scores that meet the Minnesota Department of Education's minimum levels in the reading, writing, and mathematics components of the PRAXIS I test (PPST). In order to be licensed, Minnesota also requires qualifying scores on exit exams called PRAXIS II in the content of all areas in which the teacher will be licensed, and on a test of the Principles of Learning and Teaching. Wisconsin and other states have specific requirements for certification in addition to the completion of WSU's Professional Education Sequence. Students should contact the Licensure Certification Officer, Paula O'Malley, (Gildemeister Hall, Room 124B) for more information about teacher certification.
3. Complete one of the Bachelor of Science teaching majors with a GPA of 2.50-2.75 in the major as required by the major department.
4. Earn a cumulative GPA of 2.75. (All previous college and university credit will be included in computing the cumulative GPA.)
5. Students should consult with the department offering the major for any additional GPA requirements.

To receive a second bachelor's degree, the student must earn at least 30 semester credits after completing requirement for the first degree. For more information about dual degrees, see page 23.

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 Teacher Certification Licensure Office (Gildemeister Hall, Room 124B).

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Education Department offers the following flag courses in the University Studies Program:

FLAG

Oral

- EDUC 460 Student Teaching-Elementary Education with Early Childhood Emphasis (1-16)
- EDUC 464 Student Teaching/K6-Middle Level (1-16)
- EDUC 465 Student Teaching-Senior High School K-12 Specialty (1-16)
- EDUC 467 Student Teaching-Early Childhood (Birth to Grade 3) (1-16)

Math/Critical Analysis

- EDUC 310 Instructional Planning and Assessment: Elementary Education with Early Childhood Emphasis (3)
- EDUC 311 Instructional Planning and Assessment: Middle Level and K-12 (3)
- EDUC 312 Instructional Planning and Assessment: Secondary (3)

Writing

- EDUC 410 Foundations of Early Childhood Education (3)
- EDUC 449 Middle Level Philosophy, Organization, and Interdisciplinary Planning (3)
- EDUC 459 The Professional Educator (3)

Flag courses that can be used to satisfy Education major/minor requirements are identified in the lists of required courses and electives in this section. (Flag requirements for Business Education appear on page 92.)

ELEMENTARY EDUCATION WITH EARLY CHILDHOOD EMPHASIS (ELEC)

125-128 S.H. Birth to Grade 6

UNIVERSITY STUDIES (48 S.H.)

I. BASIC SKILLS

- ENG 111 College Reading and Writing (4)
- CMST 191 Introduction to Public Speaking (3)
- MATH 100 Survey of Math (3) or higher math course
- HERS 204 Personal and Community Health (3)

* "Additional Requirements" course as defined in Item 3, page 19.

II. ARTS AND SCIENCES CORE

Humanities: HIST 150 OR HIST 151 recommended and one elective (6)

Natural Science: SCIE 201 and SCIE 401 OR one elective with lab and one elective without a lab (7)

Social Science: SPED 400 and SOC 150 (6)

Fine and Performing Arts: MUS 320 (3)

III. UNITY AND DIVERSITY

MTED 201 Technology Based Geometry (4)

Science and Social Policies-Elective (3)

EDUC 308 Human Relations and Student Diversity (3)

Contemporary Citizenship Elective (3)

LICENSE REQUIREMENTS (16-19 S.H.)

EDUC 321 Children's Literature (3)

EDUC 352 Integrating Microcomputers into the Classroom (3)
(test-out option available)

MTED 125 Mathematics for Elementary Teachers (4)

PER 200 Teaching Elementary Physical Education (3)

HERS 320 Health Education in Elementary Schools (3)

* SOC 212 The Family (3)

PROFESSIONAL EDUCATION SEQUENCE & METHODS (60 S.H.)

These courses require formal admission into the teacher education program.

ART 300 Elementary Art Education (3)

EDUC 303 Human Development & Learning: Elementary Education with Early Childhood Emphasis (4)

✎ EDUC 310 Instructional Planning & Assessment: Elementary Education with Early Childhood Emphasis (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 the Elementary School (3)

EDUC 334 Teaching Mathematics in the Elementary School (3)

EDUC 335 Teaching of Science & Environmental Studies in the Elementary School (3)

✎ EDUC 410 Foundations of Early Childhood Education (3)

EDUC 413 Development in Infancy (3)

EDUC 414 The Developing Child in the Social World (3)

EDUC 416 Early Childhood/Kindergarten Curriculum (4)

EDUC 424 Organization & Administration of Early Childhood Education Programs (3)

✎ EDUC 459 The Professional Educator (3)

✎ EDUC 460 Student Teaching - Elementary Education with Early Childhood Emphasis (1-16)

K-6 WITH MIDDLE LEVEL MATHEMATICS 5-8 SPECIALTY (KMMA)

119-122 S.H. Kindergarten - Grade 8

UNIVERSITY STUDIES (49 S.H.)

I. BASIC SKILLS

ENG 111 College Reading and Writing (4)

CMST 191 Introduction to Public Speaking (3)

MATH 100 Survey of Math (3) or higher math course

HERS 204 Personal and Community Health (3)

II. ARTS AND SCIENCES CORE

Humanities: HIST 150 OR HIST 151 recommended and one elective (6)

Natural Science: one class with lab and one class without lab (7)

Social Science: SPED 400 and one additional course (6)

Fine and Performing Arts: MUS 320 (3)

III. UNITY AND DIVERSITY

MTED 201 Technology Based Geometry (4)

Science and Social Policies: Elective (3)

EDUC 308 Human Relations and Student Diversity (3)

Contemporary Citizenship Elective (3)

LICENSE REQUIREMENTS (20-23 S.H.)

EDUC 321 Children's Literature (3) OR ENG 240 Young Adult Literature (3)

EDUC 352 Integrating Microcomputers into the Classroom (3)
(test-out option available)

MATH 120, MATH 140, OR MATH 160 (3)

MTED 125 Mathematics for Elementary Teachers (4)

MTED 421 Middle School Methods in Mathematics (1)

PER 200 Teaching Elementary Physical Education (3)

HERS 320 Health Education in the Elementary School (3)

STAT 110 Fundamentals of Statistics (3)

PROFESSIONAL EDUCATION SEQUENCE & METHODS (50 S.H.)

These courses require formal admission into the teacher education program.

ART 300 Elementary Art Education (3)

EDUC 304 Human Development & Learning: Middle Level and K-12 (4)

✎ EDUC 311 Instructional Planning & Assessment: Middle Level and K-12 (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 the Elementary School (3)

EDUC 334 Teaching Mathematics in the Elementary School (3)

EDUC 335 Teaching of Science & Environmental Studies in the Elementary School (3)

EDUC 434 Remedial Mathematics Methods (3)

✎ EDUC 449 Middle Level Philosophy, Organization and Interdisciplinary Planning (3)

✎ EDUC 459 The Professional Educator (3)

✎ EDUC 464 Student Teaching/K-6-Middle Level (16)

K-6 WITH MIDDLE LEVEL SCIENCE 5-8 SPECIALTY (KMSC)

122-126 S.H. Kindergarten - Grade 8

UNIVERSITY STUDIES (48 S.H.)

I. BASIC SKILLS

ENG 111 College Reading and Writing (4)

CMST 191 Introduction to Public Speaking (3)

MATH 100 Survey of Math (3) or higher math course

HERS 204 Personal and Community Health (3)

II. ARTS AND SCIENCE CORE

Humanities: HIST 150 OR HIST 151 recommended and one elective (6)

Science: GEOS 120 and GEOS 130 (7)

Social Science: SPED 400 and one additional course (6)

Fine and Performing Arts: MUS 320 (3)

III. UNITY AND DIVERSITY

MTED 201 Technology Based Geometry (4)

Science and Social Policies: GEOS 103 recommended (3) OR BIOL 104 for Wisconsin licensure

EDUC 308 Human Relations and Student Diversity (3)

Contemporary Citizenship Elective (3)

LICENSE REQUIREMENTS (27-31 S.H.)

EDUC 321 Children's Literature (3) OR ENG 240 Young Adult Literature (3)

EDUC 352 Integrating Microcomputers into the Classroom (3)
(test-out option available)

MTED 125 Mathematics for Elementary Teachers (4)

PER 200 Teaching Elementary Physical Education (3)

HERS 320 Health Education in Elementary School (3)

Science: *BIOL 118 recommended OR *BIOL 242 (4)

Science: *CHEM 108 (4) OR a combination of CHEM 212 (4) AND CHEM 213 (4)

Science: *PHYS 115 (3)

PROFESSIONAL EDUCATION SEQUENCE & METHODS (47 S.H.)

These courses require formal admission into the teacher education program.

ART 300 Elementary Art Education (3)

EDUC 304 Human Development & Learning: Middle Level and K-12 (4)

✎ EDUC 311 Instructional Planning & Assessment: Middle Level and K-12 (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 the Elementary School (3)

EDUC 334 Teaching Mathematics in the Elementary School (3)

EDUC 335 Teaching of Science & Environmental Studies in the Elementary School (3)

✎ EDUC 449 Middle Level Philosophy, Organization and Interdisciplinary Planning (3)

✎ EDUC 459 The Professional Educator (3)

✎ EDUC 464 Student Teaching/K-6 Middle Level (16)

K-6 WITH MIDDLE LEVEL SOCIAL STUDIES 5-8 SPECIALTY (KMSO)

123-126 S.H. Kindergarten - Grade 8

UNIVERSITY STUDIES (48 S.H.)

I. BASIC SKILLS

- ENG 111 College Reading and Writing (4)
- CMST 191 Introduction to Public Speaking (3)
- MATH 100 Survey of Math (3) or higher math course
- HERS 204 Personal and Community Health (3)
- Humanities: HIST 150 and HIST 151 (6)
- Science electives: one with lab; one without (7)
- Social Science: SPED 400 and one elective (6)
- Fine and Performing Arts: MUS 320 (3)

III. UNITY AND DIVERSITY

- MTED 201 Technology Based Geometry (4)
- Science and Social Policies elective (3)
- EDUC 308 Human Relations and Student Diversity (3)
- Contemporary Citizenship Elective (3)

LICENSE REQUIREMENTS (27-31 S.H.)

- EDUC 321 Children's Literature (3) ENG 220, ENG 221, OR ENG 240 (3)
- EDUC 352 Integrating Microcomputers into the Classroom (3) (test-out option available)
- MTED 125 Mathematics for Elementary Teachers (4)
- PER 200 Teaching Elementary Physical Education (3)
- HERS 320 Health Education in Elementary School (3)
- Non-Western History: HIST 123 or HIST 165 or HIST 170 (3)
- Western Civilization: *HIST 120 or *HIST 121 or *HIST 122 (3)
- Social Science: *SOC 150 (3)
- Social Science: *ECON 202 (3)
- Social Science: *GEOG 110 or GEOG 320 (3)

PROFESSIONAL EDUCATION SEQUENCE & METHODS (47 S.H.)

These courses require formal admission into the teacher education program.

- ART 300 Elementary Art Education (3)
- EDUC 304 Human Development & Learning: Middle Level and K-12 (4)
- EDUC 311 Instructional Planning & Assessment: Middle Level and K-12 (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 the Elementary School (3)
- EDUC 334 Teaching Mathematics in the Elementary School (3)
- EDUC 335 Teaching of Science & Environmental Studies in the Elementary School (3)
- EDUC 449 Middle Level Philosophy, Organization and Interdisciplinary Planning (3)
- EDUC 459 The Professional Educator (3)
- EDUC 464 Student Teaching/K-6-Middle Level (16)

K-6 WITH MIDDLE LEVEL COMMUNICATION ARTS & LITERATURE 5-8 SPECIALTY (KMCL)

114-117 S.H. Kindergarten - Grade 8

UNIVERSITY STUDIES (48 S.H.)

I. BASIC SKILLS

- ENG 111 College Reading and Writing (4)
- CMST 191 Introduction to Public Speaking (3)
- MATH 100 Survey of Math (3) or higher math course
- HERS 204 Personal and Community Health (3)

II. ARTS AND SCIENCES CORE

- Humanities: ENG 240 Young Adult Literature and HIST 150 OR HIST 151 recommended (6)

Science electives: one with lab; one without (7)

- Social Science: SPED 400 and one elective (6)
- Fine and Performing Arts: MUS 320 (3)

III. UNITY AND DIVERSITY

- MTED 201 Technology Based Geometry (4)
- Science and Social Policies elective (3)
- EDUC 308 Human Relations and Student Diversity (3)
- Contemporary Citizenship Elective (3)

LICENSE REQUIREMENTS (16-19 S.H.)

- EDUC 321 Children's Literature (3) OR ENG 240 Young Adult Literature (3)
- EDUC 352 Integrating Microcomputers into the Classroom (3) (test-out option available)
- MTED 125 Mathematics for Elementary Teachers (4)

- PER 200 Teaching Elementary Physical Education (3)
- HERS 320 Health Education in Elementary School (3)
- THAD 141 Oral Interpretation (3)

Another course in the language arts area to be determined by the department.

PROFESSIONAL EDUCATION SEQUENCE & METHODS (50 S.H.)

These courses require formal admission into the teacher education program.

- ART 300 Elementary Art Education (3)
- EDUC 304 Human Development & Learning: Middle Level and K-12 (4)
- EDUC 311 Instructional Planning & Assessment: Middle Level and K-12 (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 the Elementary School (3)
- EDUC 334 Teaching Mathematics in the Elementary School (3)
- EDUC 335 Teaching of Science & Environmental Studies in the Elementary School (3)
- EDUC 449 Middle Level Philosophy, Organization and Interdisciplinary Planning (3)
- EDUC 459 The Professional Educator (3)
- EDUC 464 Student Teaching/K-6-Middle Level (16)

COURSE DESCRIPTIONS (EDUC)

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. Grade only. Offered each semester.

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.

Prerequisite: Instructor's permission. P/NC Only. Offered each semester. **Note:** Persons enrolling in EDUC 150 must arrange their schedule with the Field Experience Director in the Education Department prior to pre-registration.

303 - Human Development and Learning: Elementary Education with Early Childhood Emphasis (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, classroom management, and the relationship between psychological theory and classroom practice in early childhood and primary classrooms. 30-40 hours of field experience is required in addition to regularly scheduled on-campus class sessions. Concurrent enrollment with EDUC 310. Grade only. Offered each semester.

304 - Human Development and Learning: Middle Level and K-12 (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, classroom management, and the relationship between psychological theory and classroom practice in elementary and middle school classrooms. 30-40 hours of field experience is required in addition to regularly scheduled on-campus class sessions. Concurrent enrollment with EDUC 311. Grade only. Offered each semester.

305 - Human Development and Learning: Secondary (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, classroom management, and the relationship between psychological theory and classroom practice in secondary classrooms. 30-40 hours of field experience is required in addition to regularly scheduled on-campus class sessions. Concurrent enrollment with EDUC 312. Grade only. Offered each semester.

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, ethnic groups, and second language learners. Prerequisites: Admission to the Department of Education. Offered each semester.

* "Additional Requirements" course as defined in Item 3, page 19.

310 - Instructional Planning and Assessment: Elementary Education with Early Childhood Emphasis (3 S.H.)

Principles of curriculum formation including writing 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. Taken concurrently with EDUC 303. Grade only. Offered each semester.

311 - Instructional Planning and Assessment: Middle Level and K-12 (3 S.H.)

Principles of curriculum formation including writing 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, performance assessments, 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. Taken concurrently with EDUC 304. Grade only. Offered each semester.

312 - Instructional Planning and Assessment: Secondary (3 S.H.)

Principles of curriculum formation including writing 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, performance assessments, 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. Taken concurrently with EDUC 305. Grade only. Offered each semester.

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. Grade only. Offered each semester.

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. Prerequisites: EDUC 303 or 304, 310 or 311. Offered each semester.

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 focusing on learners ages nine to fourteen (grades 4-8). 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. Prerequisite: EDUC 328. Offered each semester.

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. Prerequisite: EDUC 328. Grade only. Offered yearly.

331 - Teaching 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 electronic visuals. Prerequisites: EDUC 305 and 312. Offered yearly.

333 - Teaching Social Studies in the 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. Prerequisites: EDUC 303 and 310, or 304 and 311, or 305 and 312. Offered each semester.

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. Prerequisites: EDUC 303 and 310 or 304, and 310 or 311. Offered each semester.

335 - Teaching of Science and Environmental Studies in the 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. Prerequisites: EDUC 303 and 310 or 304 and 311. Offered each semester.

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 teacher's technological competencies. Offered each semester. (Test-out option available.)

410 - Foundations of Early Childhood Education (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. Prerequisites: Admission to the Department of Education. Offered each semester.

413 - Development in Infancy (3 S.H.)

This course addresses the topics of genetics, prenatal development, birth, and physical, social, emotional, and cognitive development in the first two-years with emphasis on care in group settings. Includes 30-hour practicum experiences with infants and toddlers. Prerequisites: EDUC 303 and 410. Grade only. Offered yearly.

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. Prerequisites: EDUC 303 and 410. Grade only. Offered yearly.

416 - Early Childhood/Kindergarten Curriculum (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. Prerequisites: EDUC 303 and 410. Grade only. Offered each semester.

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. Prerequisites: EDUC 303, 410, and 416. Grade only. Offered yearly.

429 - Secondary Reading and Teaching Strategies (4 S.H.)

Emphasis is on reading comprehension, strategies, and study skills in content areas, lesson planning, lesson presentation skills, and media techniques appropriate to the instructional process. Prerequisites: EDUC 305, 312. Offered each semester.

434 - Remedial Mathematics Methods (3 S.H.)

This course covers diagnostic and remediation techniques to facilitate acquisition of basic mathematics skills. Prerequisite: EDUC 334 or instructor's permission. Offered each semester.

442 - The Adult Learner (3 S.H.)

This course focuses on the characteristics and development of adult learners. Offered yearly.

449- Middle Level Philosophy, Organization and Interdisciplinary Planning (3 S.H.)

The major focus of this course is middle level 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. Field experiences are required in addition to the regularly scheduled on campus class sessions. Prerequisites: EDUC 304, and 311 or 305 and 312. Grade only. Offered each semester.

450 - Comparative Education (3 S.H.)

A study of the purposes, organization, offerings, and achievements of education in selected foreign countries. Grade only. Offered yearly.

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. Prerequisites: EDUC 303, 304, or 305, 310, 311, or 312. Take this course the semester prior to student teaching. Offered each semester.

460 - Student Teaching- Elementary Education with Early Childhood Emphasis (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. Prerequisites: All the professional courses required for the major. P/NC only.

464 - Student Teaching/K-6- Middle Level (1-16 S.H.)

One full semester of student teaching on a full-day basis in a middle school. Offered each semester. Prerequisites: All the professional courses required for the major. P/NC only.

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. Prerequisites: All the professional courses required for the major. P/NC only.

467 - Student Teaching-Early Childhood (Birth to Grade 3)(1-16 S.H.)

Supervised teaching in two (2) Early Childhood placements. Offered each semester. P/NC only.

483 - Multicultural Children, Youth, and Families (2 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. Offered yearly.

490 - Individual Problems 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. 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. P/NC only for undergraduates.

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. P/NC only. Offered on demand.

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. Grade only. Offered on demand.

BUSINESS EDUCATION

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

www.winona.edu/bued

Jeanette Karjala, Advisor

PROGRAM OVERVIEW

The Business Education program's primary goal is to provide the depth of knowledge and competencies required for career advancement in addition to entry-level proficiencies. All programs are designed with a balanced curriculum of general knowledge and specialized skills. The following programs are available:

- Bachelor of Science: Business Education (Teaching)
- Bachelor of Science: Training and Development Minor
- Certificate: Training and Development

Business Education Teaching Major

The Business Education Teaching major prepares students to become teachers of business subjects at the K-12 level. Business education courses integrate technology and business to prepare students for success after graduation. Students pursue a balanced curriculum of computer technology, business administration, administrative information systems, general education, methods of teaching, and professional education. Senior business education students teach in grades 5-12 on a full-time basis for one semester to fulfill their student teaching requirement.

To improve the opportunity and access for interested candidates to complete a business education program and receive licensure, WSU worked closely with the Board of Teaching (BOT) and Minnesota Department of Education to develop a collaborative procedure for students located throughout the state. Since fall 1999, WSU has worked toward preparing online courses. This included a pilot cohort of students from the Mankato area. The program is now ready to be released statewide. Students in this program complete their general education core and certain electives from the MnSCU institution in their area. The Minnesota Standards of Effective Practice must be taken from a single BOT-approved teacher preparation institution and verification of satisfactory completion provided. The business education core of courses is completed online through WSU. For specific information, contact the Business Education office for an advisor.

Training and Development

The Training and Development minor prepares individuals for professional positions in employer-based training and employee development programs; this program augments many majors. Additionally, it prepares students to fulfill the rapidly expanding training and training administrator market. As one of the most rapidly growing career opportunity areas, the training and development field offers careers in positions such as trainer/instructor, instructional technologist, course developer/designer, training specialist, and training manager.

The training and development minor includes course work in seven basic areas: business organization and management, instruction and program development, business communications, interpersonal relations, human resources, adult learning, and computers. These competency areas coincide with the competencies that the American Society for Training and Development (ASTD) recommends for well-qualified training professionals. Organizations with training and employee development programs provide internship positions that allow students to actively apply knowledge and skills in a "real" training environment.

Vocational-Technical College Transfer Policy for Business Education Teaching Majors

Students who have completed a one- or two-year business program at a technical or community college may apply for a transfer of approved business credits. Students' transcripts are evaluated by Business Education faculty. (Refer to page 6 for information about transfer of technical or community college credits.) This transfer policy applies only to students majoring in the teaching of business education.

ADMISSION AND RETENTION REQUIREMENTS

For information about admission and retention requirements, see page 85.

STUDENT TEACHING REQUIREMENTS

To receive departmental recommendation for student teaching, a student must:

1. Complete all courses required for the major.
2. Have a minimum 2.75 overall GPA and a 2.5 GPA in the major.
3. Meet the admission requirements of the College of Education listed on page 86.

GRADUATION REQUIREMENTS

For a checklist of the University's graduation requirements, see page 22.

BUSINESS EDUCATION TEACHING MAJORS

Students interested in the business education teaching major should contact the Business Education office for an advisor.

* "Additional Requirements" course as defined in Item 3, page 19.

Teaching majors must take all courses in the Professional Education Sequence for secondary majors in addition to courses in the content area. Refer to the education program requirements on page 87, or refer to either of these websites: www.winona.edu/bued or www.winona.edu/education. Please refer to the business education program website for information regarding the articulation agreement with Minnesota State University-Mankato for the Business Education program.

The business education faculty 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 on page 85.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Business Education program offers the following flag courses in the University Studies Program:

FLAG

Oral

- BUED 401 General Methods and Foundation (3)
- BUED 403 Technology and Business Teaching Methods (3)
- BUED 410 Administrative Communication (3)

Writing

- BUED 333 Business Communication (3)
- BUED 335 Information Resource Management (3)





Flag courses that can be used to satisfy Business Education major/minor requirements are identified in the lists of required courses and electives in this section.

B.S. MAJOR BUSINESS EDUCATION (Teaching) (BEDT)

58 S.H. (No Minor Required) Grade 5-12

REQUIRED COURSES (52 S.H.)

Business Education (34 S.H.)

- BUED 201 Keyboarding (1)
- BUED 203 Document Production and Procedures (2)
- BUED 215 Personal Finance (3)
- BUED 320 Business Technology (3)
- BUED 330 Advanced Business Technology (3)
-  BUED 333 Business Communication (3)
-  BUED 335 Information Resource Management (3)
- BUED 340 Integrated Information Systems Applications (3)
- BUED 360 Interpersonal Business Relations (3)
-  BUED 401 General Methods and Foundations (3)
-  BUED 403 Technology and Business Teaching Methods (3)
- BUED 435 Information Systems/Personnel Management (3)
- BUED 490 Capstone Seminar (1)

Accounting (6 S.H.)

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

Business Administration (3 S.H.)

- BUSA 291 Legal Environment of Business (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)

Marketing (3 S.H.)


- MKTG 300 Principles of Marketing (3)

RECOMMENDED ELECTIVES (3 S.H.)†

Business Administration

- BUSA 106 Introduction to Business (3)

Business Education

- BUED 206 Administrative Procedures (3)
- BUED 218 Job Search Strategies: Résumé (1)
- BUED 219 Job Search Strategies: Application Letter and Interview (1)
- BUED 336 Information Services Seminar (1)
- BUED 350 Quality of Work Life (3)
-  BUED 410 Administrative Communication (3)
- BUED 412 Team Building (1-3)
- BUED 440 Training and Employee Development (3)
- BUED 441 Training Techniques and Media (3)
- BUED 470 Seminar in Training and Education for Business (1-3)

Business Management

- MGMT 427 Management Development (3)

Education

- EDUC 442 The Adult Learner (3)


† Other electives may be taken with approval from the student's advisor.

B. S. MINOR TRAINING AND DEVELOPMENT (TRDV)

24 S.H.

REQUIRED COURSES (15 S.H.)

Business Education (9 S.H.)

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

Education (3 S.H.)

- EDUC 442 The Adult Learner (3)


Management (3 S.H.)

- MGMT 427 Management Development (3)

Note: See the course description for MGMT 427 for prerequisites.

For the business education major and training and development minor, BUED 335 and 435 satisfy the prerequisites.


FOUNDATION REQUIREMENTS (9 S.H.)

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

TRAINING AND DEVELOPMENT CERTIFICATE

15 S.H.

REQUIRED COURSES (15 S.H.)

-  BUED 410 Administrative Communication (3)
- BUED 440 Training and Employee Development (3)
- BUED 441 Training Techniques and Media (3)
- EDUC 442 The Adult Learner (3)
- BUED 470 Seminar in Training and Education for Business (1-3)

COURSE DESCRIPTIONS (BUED)

201 - Keyboarding (1 S.H.)

Computer keyboarding proficiency and mastery are developed with skill building and proofreading techniques. Technique, speed, and accuracy are emphasized. Offered each semester.

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

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

203 - Document Production and Procedures (2 S.H.)

Fundamental word processing software knowledge and skills are developed for personal and business uses. Current input devices and methods, such as voice and slate, are included. Prerequisite: BUED 201 or equivalent. Offered yearly.

206 - Administrative Procedures (3 S.H.)

Administrative procedures and methods for implementing the administrative support function.

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 each semester.

218 - Job Search Strategies: Résumé (1 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 résumé. Offered each semester.

219 - Job Search Strategies: Application Letter and Interview (1 S.H.)

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

320 - Business Technology (3 S.H.)

Intermediate design principles for print-based documents and computer-generated outputs such as word processing, database, spreadsheets and use of presentation and voice recognition technology. Publishing features will be used to enhance materials graphically for more effective communication. Prerequisite: BUED 203 or equivalent.

330 - Advanced Business Technology (3 S.H.)

Expert concepts of word processing, database, spreadsheets and use of presentation and voice recognition technology. Provides a vocabulary and understanding of computers in business, including business application software. Prerequisite: BUED 203 and BUED 320 or equivalent. 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.

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 yearly.

335 - Information Resource Management (3 S.H.)

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, and electronic as well as 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 and foundations of local area networks. Prerequisite: BUED 203 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 BUED faculty for requirements. P/NC only. Offered each semester.

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

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

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

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

401 - General Methods and Foundations (3 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 change. 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 Business Education teaching majors/minors. Recommended prerequisites: EDUC 305 and EDUC 312. Grade only. Offered yearly.

403 - Technology and Business Teaching Methods (3 S.H.)

A study of strategies for teaching technology and business subjects. Teaching practices are related to theories of learning and include specific techniques of classroom management, motivation, planning, evaluation, and appropriate use and management of technology. Open only to Business Education majors/minors. Recommended prerequisites: EDUC 305 and EDUC 312. Grade only. Offered yearly.

410 - Administrative Communication (3 S.H.)

Leadership communication for personnel at all organizational levels. An emphasis on spoken communication includes such topics as persuasive proposals, presentations, case analysis, meeting management, the visual briefing and multimedia and communication technology applications. 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. Grade only. Not open to Business Education majors.

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

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: BUED 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 BUED faculty. May be repeated when offered with different subject matter content and title. Offered when demand warrants.

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 BUED 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.

ENGINEERING

Stark Hall, Room 203 (507-457-5685)

www.winona.edu/engineering

Beckry Abdel-Magid (Chairperson)

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, Professor; B.S., M.S., Shiraz University, Iran; Ph.D., University of California-Davis, 1993 -

Fariborz Parsi, Professor; B.S., M.S., Ph.D., University of South Carolina, Columbia; 1991 -

Saeed Ziaee, Assistant Professor; B.S., Ph.D., University of Texas at Austin; 2003 -

PURPOSE

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, which have high strength and stiffness, are formed by combining reinforcing fibers in a polymer, ceramic or metal matrix. Over the past three decades, the use of composites has grown significantly in the following industries: aerospace, automotive, biotechnology, construction, electronics, marine, and sporting goods. The future for people educated in the engineering of composite materials is bright.

The Composite Materials Engineering (CME) Program 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 to enter the composites industry in 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 CME 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 CME Program is “to serve society by developing creative engineering minds for the world of tomorrow!”

- The **Educational Objectives** of the CME Program are to prepare graduates who:
 - a. Thoroughly understand the materials, processes, and performance of composites.
 - b. Can successfully address engineering problems within a given global, economic, environmental, and societal context.
 - c. Can design creative solutions to meet the needs of the composites industry.
 - d. Can design and recommend tests and properly interpret the results.
 - e. Can effectively communicate views and interact with others.
 - f. Can work in and function within multidisciplinary teams.
 - g. Understand their responsibility to the engineering profession and demonstrate it by properly responding to ethical quandaries.
 - h. Have knowledge of contemporary issues and recognize the importance of sustaining this knowledge through life-long learning.
- The **Learning Outcomes** of the CME Program are demonstrated by students who attain:
 1. An understanding of the fundamentals of mathematics, science, and engineering science and their application in engineering.
 2. The ability to identify, formulate, model, and solve engineering problems.
 3. The ability to use state-of-the-art engineering tools (experimental, computational, and statistical) necessary to select, analyze, design, fabricate, and test materials.
 4. The ability to design and conduct experiments as well as to analyze and interpret data related to structure, properties, processing, and performance of materials.
 5. The theoretical knowledge and hands-on ability to confidently design components, systems, and processes to meet the needs of the composites industry within a set of realistic constraints including economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
 6. The ability to communicate effectively in oral, written, and visual forms.
 7. The ability to work effectively in a team environment.
 8. An understanding of the proper response to ethical issues and their responsibility to the engineering profession.
 9. An understanding of the impact of their engineering decisions in a global, economic, environmental, and societal context.
 10. Knowledge of contemporary issues and recognition of the importance of sustaining this knowledge through life-long learning.

HIGH SCHOOL PREPARATION

The Department of Engineering recommends that high school preparation include 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 that a student will be prepared to complete the degree requirements in four years. In addition, courses in industrial technology will be helpful.

ADMISSION TO THE PROGRAM

Admission to the CME major is selective and is determined by the Engineering Admissions Committee. Before students can be considered for admission to the CME major, they must:

- Complete 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. These courses can be taken at WSU or transferred from other institutions. However, courses with grades below “C” will not be accepted in transfer.
- 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. Students will not be allowed to enroll in upper-division 300- or 400-level engineering courses until either they are admitted into the major or they are granted special permission from their Department of Engineering major advisor.

PROBATION POLICY

CME majors will be placed on probation if their previous semester's GPA 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 have been 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.

UNIVERSITY STUDIES REQUIREMENTS

The objectives of the University Studies component of the Bachelor of Science in Composite Material Engineering degree are consistent with the objectives of the WSU University Studies program. However, the University Studies credits required for CME majors have been adjusted because of the courses that students must complete as part of the CME major.

Note: Students who receive a waiver from certain University Studies courses must take an equal number of credit hours of elective courses.

UNIVERSITY STUDIES COMPONENT FOR CME MAJORS

I. Basic Skills (11 S.H.)

- MATH 160 Calculus I (4)
- ENG 111 College Reading & Writing (4)
- CMST 191 Introduction to Public Speaking (3)

II. Arts and Sciences Core (20 S.H.)

- Humanities (6)
- Social Science (6)
- Natural Sciences (8):
 - CHEM 212 Principles of Chemistry I (4)
 - PHYS 221 University Physics I (4)

III. Unity and Diversity (9 S.H.)

- Critical Analysis: STAT 303 Introduction to Engineering Statistics (3)
- Science and Social Policy: A sequence of 3 engineering courses (3):
 - ENGR 102 Introduction to Engineering
 - ENGR 390 Composites Manufacturing
 - ENGR 480 Design Project II
- Global or Multicultural Perspectives (3)

IV. Flag Courses (13 S.H.)

- † Oral Flag: A sequence of two engineering courses (3):
 - ENGR 475 Design Project I
 - ENGR 491 Engineering Seminar
- Math/Critical Analysis Flag: MATH 260 Multivariable Calculus (4)
- † Writing Flag: A sequence of four engineering courses (6):
 - ENGR 292 Properties of Materials Lab
 - ENGR 451 Transport Phenomena Lab
 - ENGR 452 Mechanical Characterization Lab
 - ENGR 465 Composite Characterization Techniques

† All courses in the sequence should be completed to receive full credit in the University Studies requirement.

GRADING METHOD

Except for foreign language courses, all WSU courses taken for credit toward the Bachelor of Science degree in Composite Materials Engineering must be taken for a letter grade. In foreign language courses, students may obtain a grade of "P" (pass) either by taking an exam or by successfully completing upper-level foreign language courses.

B.S. MAJOR - COMPOSITE MATERIALS ENGINEERING (CMEC, CMEM)

106 S.H. (No Minor Required)

CORE REQUIREMENTS (85 S.H.)

LOWER-DIVISION (51 S.H.)

Mathematics (16 S.H.)

- MATH 160 Calculus I (4)
- MATH 165 Calculus II (4)
- MATH 260 Multivariable Calculus (4)
- MATH 270 Differential Equations & Linear Algebra (4)

Chemistry (8 S.H.)

- CHEM 212 Principles of Chemistry I (4)
- CHEM 213 Principles of Chemistry II (4)

Physics (8 S.H.)

- PHYS 221 University Physics I (4)
- PHYS 222 University Physics II (4)

Computer Science (3 S.H.)

- CS 130 Introduction to BASIC Programming (3)

Engineering (16 S.H.)

- ENGR 102 Introduction to Engineering (2)
- ENGR 182 Engineering Graphics & Design (2)
- ENGR 250 Statics (3)
- ENGR 260 Mechanics of Materials (3)
- ENGR 284 Properties of Materials (4)
- ENGR 292 Properties of Materials Lab (2)

UPPER-DIVISION (34 S.H.)

Mathematics (3 S.H.)

- MATH 303 Introduction to Engineering Statistics (3)

Physics (3 S.H.)

- PHYS 302 Electrical Circuits & Systems (3)

Engineering (28 S.H.)

- ENGR 300 Thermodynamics (3)
- ENGR 350 Fluid Mechanics (3)
- ENGR 360 Introduction to Composites Materials (3)
- ENGR 370 Heat and Mass Transfer (3)
- ENGR 390 Composites Manufacturing (3)
- ENGR 451 Transport Phenomena Laboratory (1)
- ENGR 452 Mechanical Characterization Laboratory (2)
- ENGR 465 Composite Characterization Techniques (3)
- ENGR 475 Design Project I (3)
- ENGR 480 Design Project II (3)
- ENGR 491 A/B Engineering Seminar (1)

Mechanical Option 21 S.H. (CMEM)

REQUIRED COURSES (12 S.H.)

Engineering (8 S.H.)

- ENGR 270 Dynamics (3)
- ENGR 382 Topics in Composite Materials Engineering M (2)
- ENGR 450 Mechanics of Composites (3)

Chemistry (4 S.H.)

- CHEM 341 Organic and Polymer Chemistry (4)

TECHNICAL ELECTIVES (9 S.H.)

Engineering Electives (6 S.H.)

- ENGR 420 Computer Integrated Manufacturing (3)
- ENGR 460 Introduction to Finite Element Analysis (3)
- ENGR 485 Advanced Microscopic Techniques (3)
- ENGR 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 22 S.H. (CMEC)

REQUIRED COURSES (16 S.H.)

Engineering (4 S.H.)

- ENGR 392 Topics in Composite Materials Engineering C (2)
- ENGR 412 Kinetics and Reactor Design (2)

Chemistry (12 S.H.)

- CHEM 350 Principles of Organic Chemistry I (4)
- CHEM 351 Principles of Organic Chemistry II (5)
- CHEM 410 Polymer Chemistry (3)

TECHNICAL ELECTIVES (6 S.H.)

Engineering Electives (6 S.H.)

- ENGR 410 Polymer Processing (3)
- ENGR 430 Rheology (3)
- ENGR 485 Advanced Microscopic Techniques (3)
- ENGR 499 Independent Study (1-3)

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 and Writing (4)
- University Studies (3)

Spring (17 S.H.)

- CHEM 213 Principles of Chemistry II (4)
- ENGR 182 Engineering Graphics and Design (2)
- MATH 165 Calculus II (4)
- PHYS 221 University Physics I (4)
- CMST 191 Introduction to Public Speaking (3)

Sophomore Year - Fall (18 S.H.)

- ENGR 250 Statics (3)
- ‡ CHEM 350 Principles of Organic Chemistry I (4)
- † CHEM 341 Organic and Polymer Chemistry (4)
- MATH 260 Multivariable Calculus (4)
- PHYS 222 University Physics II (4)
- CS 130 Introduction to BASIC Programming (3)

* "Additional Requirements" course as defined in Item 3, page 19.

Spring (16†-18‡ S.H.)

- ‡ CHEM 351 Principles of Organic Chemistry II (5)
- MATH 270 Differential Equations and 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†-18‡ S.H.)

- ‡ CHEM 410 Polymer Chemistry (3)
- ENGR 300 Thermodynamics (3)
- ENGR 350 Fluid Mechanics (3)
- ENGR 360 Introduction to Composite Materials (3)
- STAT 303 Introduction to Engineering Statistics (3)
- University Studies (3)

Spring (†17 S.H., ‡14 S.H.)

- ENGR 370 Heat and 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 and System (3)
- Technical Elective (3)
- † University Studies (3)

Senior Year - Fall (†15 S.H., ‡14 S.H.)

- ENGR 451 Transport Phenomena Laboratory (1)
- ENGR 465 Composite Characterization Techniques (3)
- ‡ ENGR 412 Kinetics and Reactor Design (2)
- † ENGR 450 Mechanics of Composites (3)
- ENGR 452 Mechanical Characterization Laboratory (2)
- ENGR 475 Design Project I (3)
- ENGR 491A Engineering Seminar (0)
- University Studies (3)

Spring (13 S.H.)

- ENGR 480 Design Project II (3)
- ENGR 491B Engineering Seminar (1)
- Technical Elective (3)
- † Technical Elective (3)
- University Studies (3)
- ‡ University Studies (3)

† Mechanical Option

‡ Chemical Option

COURSE DESCRIPTIONS (ENGR)

All engineering courses are to be taken for grade only. All courses are offered at least once a year except where 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.

103 - Understanding Engineering (for non-majors) (2 S.H.)

This course is for non-engineers who want to learn what it is like to be an engineer. The topics covered in this course include engineering design, ethics, intellectual property, personal and environmental safety, and principles of engineering. Grade only.

182 - Engineering Graphics and Design (2 S.H.)

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.)

Force systems and equilibrium. Applications to simple trusses, frames and machines; distributed loads; properties of areas and masses; laws of friction. Designed to develop the ability to analyze and solve engineering problems. Prerequisites: MATH 160 and PHYS 221. Grade only.

260 - Mechanics of Materials (3 S.H.)

Concept of stress and strain, internal reactions (stresses and strains) to external load for axially loaded prismatic structural member; torsion members and beams; deformation and buckling of structural and machine elements. Statically determinate and statically indeterminate problems. Prerequisites: ENGR 250 and MATH 165. Grade only.

270 - Dynamics (3 S.H.)

Kinematics: translation, rotational, plane motion and relative motion of particles and rigid bodies. 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.)

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, ENG 111. Grade only.

300 - Thermodynamics (3 S.H.)

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.)

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.)

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.)

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 major. 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.)

A lecture-laboratory course. General manufacturing issues including flow of a product through a manufacturing firm, environmental, health and safety issues, and 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 majors. 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.)

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.)

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.)

Evolution of the manufacturing system. Functions and interactions in a manufacturing system. Examples of CIM implementation in industry. Analytical tools and simulation software are used in evaluating manufacturing systems. Prerequisite: ENGR 390. Grade only. Offered a minimum of once every two years.

430 - Rheology (3 S.H.)

A lecture-laboratory course. Stress and strain, Newtonian vs. non-Newtonian fluids, rheological equations of state, viscometric flows, viscoelasticity, fluid mechanics of rheometry, plastic melt rheometry and suspension rheology. Prerequisite: ENGR 350. Grade only. Offered a minimum of once every two years.

450 - Mechanics of Composites (3 S.H.)

Micro mechanics of composite materials. Behavior and mechanical properties of unidirectional composites. Study of failure modes, hygrothermal and transport properties. Stress transfer, stiffness and strength properties of short fiber composites. Generalized Hooke's Law and stress-strain relations of an orthotropic lamina. Stiffness and strength criteria of orthotropic composite materials. Laminated Plate Theory. Composites Design. Prerequisites: MATH 270, ENGR 260 and ENGR 360. Grade only.

451 - Transport Phenomena Laboratory (1 S.H.)

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.)

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, isoperimetric 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 130. Grade only. Offered a minimum of once every two years.

465 - Composite Characterization Techniques (3 S.H.)

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)

Develop product from requirements definition through prototype fabrication. Includes 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.)

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.)

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

Minné Hall, Room 302 (507-457-5440)

www.winona.edu/english/

Ruth Forsythe (Chairperson)

FACULTY

James Armstrong, Associate Professor; B.A., Northwestern University; M.F.A., Western Michigan University; Ph.D., Boston University; 1999 -
Rob Brault, Assistant Professor; B.A., Macalester College; Ph.D., University of Minnesota; 2000 -
Chris Buttram, Associate Professor; B.A., Emory University; M.A., M.Phil., Ph.D., Columbia University; 2000 -
Jane Carducci, Professor; B.A., Colorado College, Colorado Springs; M.A., Ph.D., University of Nevada-Reno; 1992 -
Debra Cumberland, Assistant Professor; B.A., Carleton College; M.A., Ph.D., University of Nebraska-Lincoln; 2002 -
Gary Eddy, Professor; B.A., State University of New York-Brockport; M.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; 1977 -
Carol Galbus, Associate Professor; B.S., Edgewood College (Wisconsin); M.A.T., St. Mary's College of Minnesota; 1986 -
Douglas Hayes, Associate Professor; B.A., M.A., University of Alberta; Ph.D., University of Toronto; 2001 -
Goldie Johnson, Associate Professor; B.S., M.S., University of Wisconsin-Superior; 1988 -
J. Paul Johnson, Professor; B.S., Valley City State University; M.A., University of North Dakota; Ph.D., University of Minnesota; 1987 -
Ethan Kruse, Assistant Professor; B.A., M.A., University of Illinois; Ph.D., University of Tennessee; 2004 -
Ditlev Larsen, Assistant Professor; B.A., University of Aalborg; M.A., St. Cloud University; Ph.D., University of Minnesota; 2003 -
Gretchen Michlitsch, Assistant Professor; B.A., Gustavus Adolphus; M.A., Ph.D., University of Wisconsin-Madison; 2005 -
Elizabeth Oness, Assistant Professor; B.A., James Madison University; M.F.A., University of Maryland; Ph.D., University of Missouri-Columbia; 2001 -
Holly Shi, Professor; B.A., Shanghai International Studies University; M.A., Ph.D., Indiana University of Pennsylvania; 1995 -

PURPOSE

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 290 is a prerequisite to all English courses numbered 300 or above, except where indicated.

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 ENG 290 and ENG 402.

PREREQUISITES

Prerequisites to all major and minor programs in English: ENG 111 and ENG 290 except where indicated.

* "Additional Requirements" course as defined in Item 3, page 19.

PASS/NO CREDIT (P/NC) 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 210, ENG 211, ENG 220, ENG 221, ENG 222, ENG 223, ENG 224, ENG 290, and Humanities 140 which are grade-only courses. The P/NC option is available to non-majors unless otherwise noted. Courses offered on a pass/no credit only or grade only basis are so designated in the course descriptions.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The English Department offers the following flag courses in the University Studies Program:

FLAG

Oral

- ENG 402 Teaching Secondary English (3)
- ENG 470 Seminar in American Literature (3)
- ENG 471 Seminar in British Literature (3)

Math/Critical Analysis

- ENG 290 Literary Studies (3)

Writing

- ENG 414 Shakespeare: Comedies and Histories (3)

- ENG 417 Shakespeare: Tragedies (3)
- ENG 439 Technical Writing (3)
- ENG 447 Modern Literary Criticism (3)

Flag courses that can be used to satisfy English major/minor requirements are identified in the lists of required courses and electives in this section.

B.A. MAJOR - ENGLISH: LITERATURE AND LANGUAGE (ENG)

49 S.H. (No Minor Required)

REQUIRED COURSES (36 S.H.)

 290 Literary Studies (5)




Choose one of the following two courses:

- 223 Classical Mythology (3) OR
- 224 Bible as Literature (3)
- 301 British Literature to 1660 (3)
- 302 Enlightenment and Revolution (3)
- 303 British and American Romanticism (3)
- 304 Realism and Naturalism (3)
- 305 Modernism and Postmodernism (3)
- 405 Chaucer (3)

Choose one of the following two courses:

- 328 English Syntax (3) OR
- 350 Introduction to Language Study (3)

Choose one of the following two courses:

-  414 Shakespeare: Comedies and Histories (3) OR
-  417 Shakespeare: Tragedies (3)
-  447 Modern Literary Criticism (3)
- 490 Portfolio (1)


ELECTIVES (13 S.H.)


Electives must be English courses at the 200-level or above, including at least 6 S.H. in English courses numbered 400 or above.

B.A. MAJOR - ENGLISH: WRITING OPTION (ENGW)

49 S.H. (No Minor Required)

REQUIRED COURSES (36 S.H.)




 290 Literary Studies (5)

- 211 Writing in Communities (3)
- 309 Nonfiction Prose Writing (3)
- 310 Story Writing (3)
- 312 Poetry Writing (3)
- 305 Modernism and Postmodernism (3)
- 328 English Syntax (3)
-  439 Technical Writing (3)

Choose one of the following three courses:

- 404 Advanced Creative Writing: Nonfiction (3) OR
- 410 Advanced Creative Writing: Fiction (3) OR
- 412 Advanced Creative Writing: Poetry (3)

Choose one of the following two courses:

-  414 Shakespeare: Comedies and Histories (3) OR
-  417 Shakespeare: Tragedies (3)
-  447 Modern Literary Criticism (3)
- 490 Portfolio (1)

ELECTIVES (13 S.H.)

Electives must be English courses at the 200-level or above, including at least 9 S.H. in English courses numbered 300 or above.

B.A. MAJOR - ENGLISH: FIRST COMBINING MAJOR - LITERATURE AND LANGUAGE (ENGF)

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 (27 S.H.)

 290 Literary Studies (5)

Choose one of the following two courses:

- 223 Classical Mythology (3) OR
- 224 Bible as Literature (3)




Choose three of the following five courses:

- 301 British Literature to 1660 (3)
- 302 Enlightenment and Revolution (3)
- 303 British and American Romanticism (3)
- 304 Realism and Naturalism (3)
- 305 Modernism and Postmodernism (3)

Choose one of the following two courses:

- 328 English Syntax (3) OR
- 350 Introduction to Language Study (3)

Choose one of the following two courses:

-  414 Shakespeare: Comedies and Histories (3) OR
-  417 Shakespeare: Tragedies (3)
-  447 Modern Literary Criticism (3)
- 490 Portfolio (1)

ELECTIVES (10 S.H.)


Electives must be English courses at the 200-level or above, including at least 6 S.H. in courses numbered 400 or above.

B.A. MAJOR - ENGLISH: SECOND COMBINING MAJOR- WRITING OPTION (ENGS)

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 (27 S.H.)

 290 Literary Studies (5)

211 Writing in Communities (3)


Choose one of the following three courses:

- 309 Nonfiction Prose Writing (3) OR
- 310 Story Writing (3) OR
- 312 Poetry Writing (3)

305 Modernism and Postmodernism (3)

328 English Syntax (3)

Choose one of the following four courses:

-  439 Technical Writing (3) OR
- 404 Advanced Creative Writing: Nonfiction (3) OR
- 410 Advanced Creative Writing: Prose (3) OR
- 412 Advanced Creative Writing: Poetry (3)

Choose one of the following two courses:

-  414 Shakespeare: Comedies and Histories (3) OR
-  417 Shakespeare: Tragedies (3)

- ☞ 447 Modern Literary Criticism (3)
490 Portfolio (1)

ELECTIVES (10 S.H.)

Electives must be English courses at the 200-level or above, including at least 6 S.H. in courses numbered 400 or above.

B.S. MAJOR - COMMUNICATION ARTS AND LITERATURE (Teaching) (CALT)

61 S.H.

REQUIRED COURSES (61 S.H.)

English - ENG (40 S.H.)

- ☞ 290 Literary Studies (5)

Choose one of the following three courses:

- 220 Multicultural American Literatures (3) OR
223 Classical Mythology (3) OR
224 Bible as Literature (3)

Choose one of the following two courses:

- 211 Writing in Communities (3) OR
222 Introduction to Creative Writing (3)

Choose two of the following four courses:

- 302 Enlightenment and Revolution (3)
303 British and American Romanticism (3)
304 Realism and Naturalism (3)
305 Modernism and Postmodernism (3)

301 British Literature to 1660 (3)

328 English Syntax (3)

- ☞ 402 Teaching Middle School and Secondary English (4)

Choose one of the following two courses:

- ☞ 414 Shakespeare: Comedies and Histories (3) OR
☞ 417 Shakespeare: Tragedies (3)

350 Introduction to Language Study (3)

432 Comparative Literature (3)

- ☞ 447 Modern Literary Criticism (3)

490 Portfolio (1)

Communication Studies - CMST (15 S.H.)

Choose one of the following four courses:

- * 287 Conflict and Communication (3) OR
* 289 Gender and Communication (3) OR
290 Disability Communication and Culture (3) OR
291 Topics in Multicultural Communication (3)

- * 282 Introduction to Communication Studies (3)

- ☞ 371 Discussion and Small Group Dynamics (3)

375 Argumentation and Advocacy (3)

493 Teaching and Coaching Oral Communication (3)

Mass Communication - MCOM (3 S.H.)

100 Mass Media and Society (3)

Theater and Dance - THAD (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 communication, and theatre/dance, or through volunteer experience.

OTHER REQUIRED COURSES

HERS 204 Personal and Community Health (3)

- * SPED 400 Education of Exceptional Children/Youth (3)

PROFESSIONAL EDUCATION SEQUENCE (32 S.H.)

- * EDUC 305 Human Development and Learning: Secondary (4)

EDUC 308 Human Relations and Student Diversity (3)

- ☞ EDUC 312 Instructional Planning and Assessment: Secondary (3)

EDUC 429 Secondary Reading and Teaching Strategies (4)

- ☞ EDUC 449 Middle Level Philosophy, Organization, and Planning (3)

EDUC 459 The Professional Educator (3)

- ☞ EDUC 465 Student Teaching (12-16)

Note: EDUC 305 and 312 must be taken the first semester after admission to the Education Program and must be taken in the same semester.

B.A. MINOR - ENGLISH: LITERATURE AND LANGUAGE (ENG)

24 S.H.

REQUIRED COURSES (17 S.H.)

- ☞ 290 Literary Studies (5)

Choose three of the following five courses:

- 301 British Literature to 1660 (3)
302 Enlightenment and Revolution (3)
303 British and American Romanticism (3)
304 Realism and Naturalism (3)
305 Modernism and Postmodernism (3)

Choose one of the following two courses:

- ☞ 414 Shakespeare: Comedies and Histories (3) OR
☞ 417 Shakespeare: Tragedies (3)

ELECTIVES (7 S.H.)

Electives must be chosen from any English course numbered 200 or above.

B.A. MINOR - ENGLISH: CREATIVE WRITING (ENGC)

24 S.H.

REQUIRED COURSES - ENG (17 S.H.)

- ☞ 290 Literary Studies (5)

305 Modernism and Postmodernism (3)

310 Story Writing (3)

312 Poetry Writing (3)

Choose one of the following two courses:

- 410 Advanced Creative Writing: Fiction (3) OR
412 Advanced Creative Writing: Poetry (3)

ELECTIVES (7 S.H.)

Electives must be chosen from any English course numbered 200 or above.

B.A. MINOR - APPLIED AND PROFESSIONAL WRITING (EAPW)

24 S.H.

REQUIRED COURSES - ENG (17 S.H.)

211 Writing in Communities (3)

250 Grammar and Usage (2)

309 Nonfiction Prose Writing (3)

328 English Syntax (3)

399 Internship (1-12 S.H.); must be completed for at least 3 S.H.

- ☞ 439 Technical Writing (3)

ELECTIVES (7 S.H.)

Electives may be chosen from any English course numbered 200 or above. Extra departmental electives may be allowed at the discretion of the department chair.

COURSE DESCRIPTIONS

ENGLISH

099 - Introduction to College Writing (3 S.H.)

Intensive writing practice with special focus on the fundamentals of sentence and paragraph structure. Students enrolled in ENG 099 who do not pass the course, including the exit exam, will not be permitted to take ENG 111, College Reading and Writing. Grade only. Offered each semester. (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 practice in academic English, with special attention to reading comprehension, including vocabulary, grammar, and basic writing skills. Designed to prepare non-native speakers for more advanced English courses and help them become successful in other academic disciplines. Must be followed by ENG 107. Grade only. Offered yearly.

107 - ESL: Academic Reading and Writing II (3 S.H.)

Further development of communicative skills in academic reading and writing for advanced non-native speakers. Focusing on organizational/rhetorical skills in writing and comprehension of

* "Additional Requirements" course as defined in Item 3, page 19.

culturally particular academic texts. Specific practice and preparation for ENG 111. Prerequisites: ENG 106 or placement through testing. Grade only. Offered yearly.

111 - College Reading and Writing (4 S.H.)

Writing based on reading, interpreting, analyzing, critiquing, and synthesizing texts; writing as a means of expression, learning, and critical inquiry. Grade only. Prerequisite: qualifying score on the English placement exam or successful completion of ENG 099. Offered each semester.

112 - Research Writing (1 S.H.)

Course focuses on researching and composing a documented argumentative essay. For students transferring an appropriate 3 S.H. composition course in order to meet University Studies Basic Skills requirement usually fulfilled by ENG 111. Department Chair's permission required.

120 - Introduction to Literature (3 S.H.)

Intensive reading in selected major forms and themes of literature. Grade only. Offered each semester.

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.

210 - Advanced Expository Writing (3 S.H.)

An advanced course in writing essays, stressing the development of a mature writing style and evaluative abilities. Prerequisite: ENG 111. Grade only. Offered each semester.

211 - Writing in Communities (3 S.H.)

The study and practice of writing as a means of participation in a diverse, democratic, and literate society. Prerequisite: ENG 111. Grade only. Offered yearly.

220 - Multicultural American Literatures (3 S.H.)

A study of literatures representing the diversity of North American culture: Native American, Asian American, African American, Gay/Lesbian, or others. Grade only. Offered yearly.

221 - Topics in World Literature (3 S.H.)

A general introduction to literatures, which reflect cultures outside the United States and Great Britain. Each class will have a specific focus. Grade only. Offered yearly.

222 - Introduction to Creative Writing (3 S.H.)

An introduction to writing poetry, fiction, and other creative genres (may include drama, screenwriting, or creative nonfiction). Covers basics of genre, style, and voice. Prerequisite: ENG 111. Grade only. Offered yearly.

223 - Classical Mythology (3 S.H.)

The great myths of Greece and Rome as they appear in classical literature. Prerequisite: ENG 111. Grade only. Offered yearly.

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. Prerequisite: ENG 111. Grade only. Offered yearly.

225 - Topics in Literature (1-3 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 (1-3 S.H.)

Focus on specialized kinds of writing; e.g. the journal. Variable content published in semester schedule.

227 - Topics in Language (1-3 S.H.)

Study of a topic of current importance in linguistics such as language variation, world English, language and culture, language and gender, or any other area of language in society. Variable content published in semester schedule. May be repeated to a maximum of 9 credits.

240 - Young Adult Literature (3 S.H.)

A study of the genres included in the literatures of the young adult culture. Course content will continue to add recent published literature for young adults. ENG 240 is required by state licensure for some levels of teaching. Instructor's permission is necessary before registering. No prerequisite.

250 - English Grammar and Usage (2 S.H.)

Study of basic concepts and elements of English grammar and usage. No prerequisites. Offered yearly.

290 - Literary Studies (5 S.H.)

A first course in literary criticism, introducing literary analysis and writing about literature, focusing upon the major genres: fiction, drama, and poetry. Prerequisite: ENG 111. Grade only. Offered each semester.

301 - British Literature to 1660 (3 S.H.)

A survey course of early British literature from the Old English period through 1660. Prerequisites: ENG 111 and ENG 290. Offered yearly.

302 - Enlightenment and Revolution (3 S.H.)

British and American literature from the 17th century to the early 19th century. Prerequisites: ENG 111 and ENG 290. Offered yearly.

303 - British and American Romanticism (3 S.H.)

A survey of the major British and American authors and works of early 19th century poetry and prose. Prerequisites: ENG 111 and ENG 290. Offered yearly.

304 - 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. Prerequisites: ENG 111 and ENG 290. Offered yearly.

305 - 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. Prerequisites: ENG 111 and ENG 290. Offered yearly.

309 - Nonfiction Prose Writing (3 S.H.)

Study and practice in the techniques and forms of nonfiction prose; reading and writing a variety of essay and nonfiction prose genres. Prerequisites: ENG 111 and ENG 290. Offered yearly.

310 - Story Writing (3 S.H.)

Study and practice in the techniques and forms of fiction writing. Prerequisites: ENG 111 and ENG 290. Offered yearly.

312 - Poetry Writing (3 S.H.)

Study and practice in the techniques and forms of poetry writing with emphasis on contemporary approaches. Prerequisites: ENG 111 and ENG 290. Offered yearly.

324 - Projects in Writing and Language (1-3 S.H.)

Special projects in writing, publishing, and/or language, including such work as tutoring writing, teaching English as a Second Language, editing literary publications, or other similar undertakings. Specific project announced in class schedule. Prerequisite: ENG 111 or instructor's permission. Offered yearly.

325 - Works of Literature (1-3 S.H.)

Study of a single major work of literature, including its creation, socio-historical context, and critical reception. Title of work announced in class schedule. Prerequisites: ENG 111, ENG 290 or instructor's permission. Offered yearly.

326 - Figures in Literature (1-3 S.H.)

Study of a major literary figure through selected works, cultural context, and critical reception. Selected figure announced in class schedule. Prerequisites: ENG 111, ENG 290 or instructor's permission. Offered yearly.

327 - Genres in Literature (1-3 S.H.)

Study of a specific genre such as the sonnet, folklore, memoirs, etc. through selected readings, cultural contexts, and critical approaches. Specific genre announced in class schedule. Prerequisites: ENG 111, ENG 290 or instructor's permission. Offered yearly.

328 - English Syntax (3 S.H.)

The structure of modern English as described by traditional grammarians and modern linguists; application of linguistics to the analysis of style. Prerequisites: ENG 111 or instructor's permission. Offered yearly.

350 - 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. Prerequisites: ENG 111 or instructor's permission. Offered yearly.

399 - Internship (1-12 S.H.)

Supervised, practical experience in a wide variety of fields. Must be arranged well in advance of the registration period. P/NC Only.

402 - Teaching Middle School and 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 middle school and secondary English curriculum. Attention to young adult literature. Prerequisites: ENG 111 and ENG 290. Offered yearly.

404 - Advanced Creative Writing: Nonfiction (3 S.H.)

Advanced practice in writing and revising creative nonfiction, with an emphasis on the development of the student's individual style. Variable content depends on the discretion of the instructor. Examples of other topics may include nature writing, the spiritual memoir, and travel writing. Prerequisites: ENG 111 and ENG 290 or instructor's permission.

405 - Chaucer (3 S.H.)

The Canterbury Tales. Prerequisites: ENG 111 and ENG 290. Offered yearly.

410 - Advanced Creative Writing: Fiction (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. Prerequisites: ENG 111, ENG 290 and ENG 310 or instructor's permission. Offered every two years.

412 - Advanced Creative Writing: Poetry (3 S.H.)

Advanced study of selected poets and poetics; advanced practice in poetry writing. Prerequisites: ENG 111, ENG 290 and ENG 312 or instructor's permission. Offered every two years.

414 - Shakespeare: Comedies and Histories (3 S.H.)

Study of Shakespeare's major comedies and history plays.

Prerequisites: ENG 111 and ENG 290. Offered yearly.

417 - Shakespeare: Tragedies (3 S.H.)

Study of Shakespeare's major tragedies. Prerequisites: ENG 111 and ENG 290. Offered yearly.

432 - Comparative Literature (3 S.H.)

Examination of texts within their cultural contexts and exploration of strategies for comparing texts from various cultural traditions.

Prerequisites: ENG 111 and ENG 290. Offered yearly.

439 - Technical Writing (3 S.H.)

The theory and practice of technical writing. Prerequisites: ENG 111. Offered yearly.

447 - Literary Criticism: Theory and Practice (3 S.H.)

A study of modern critical theories and their application in original critical evaluations. Prerequisites: ENG 111 and ENG 290. Offered yearly.

461 - Independent Studies (1-3 S.H.)

Independent studies determined by the needs of the individual student. Offered by previous arrangement only. Prerequisites: ENG 111 and ENG 290. Offered each semester.

470 - Seminar in American Literature (3 S.H.)

Advanced study of a period, genre, or figure in American literature. The course will focus on critical methodologies and student research.

Prerequisites: ENG 111 and ENG 290. Offered yearly.

471 - Seminar in British Literature (3 S.H.)

Advanced study of a period, genre, or figure in British literature. The course will focus on critical methodologies and student research.

Prerequisites: ENG 111 and ENG 290. Offered yearly.

472 - Seminar in Language Study and Discourse (3 S.H.)

Advanced study of topics in language and linguistics. Variable content depends on the discretion of the instructor. Topics may include history of the English language, sociolinguistics, psycholinguistics, language and social context, contrastive rhetoric, pragmatics, and language and culture. Prerequisites: ENG 111 and ENG 350 or instructor's permission.

480 - Theories of Second Language Acquisition (3 S.H.)

This course introduces students to core issues in second language acquisition and research. Students work to understand what is occurring linguistically, cognitively, and socially as humans learn languages beyond their native language. The course focuses on both theoretical and pragmatic interactions among learner, language, and context. Prerequisites: ENG 111 and ENG 350 or instructor's permission.

481 - TESOL Theory and Methods (3 S.H.)

The course examines theories, methods and techniques of teaching English to speakers of other languages (TESOL) including psychological socio-cultural, political, and pedagogical factors affecting learning and teaching and the influence of these factors on current teaching methods. Prerequisites: ENG 111 and 350 or instructor's permission.

482 - Second Language Composition Studies (3 S.H.)

The course is a survey of theories of second language writing, including analysis of theoretical perspectives and pedagogical materials. This may also include application of TESOL theory and methods to the teaching of composition. Prerequisites: ENG 111 and 350 or instructor's permission.

483 - Pedagogical Grammar (3 S.H.)

In this course students examine the structural features of English as they apply to the teaching and learning of English as a second or foreign language. The primary focus is on explaining grammatical concepts within pedagogical contexts. Prior experience in the formal study of English grammar is necessary background for this course. Prerequisites: ENG 111 and ENG 328 or instructor's permission.

484 - ESL Materials, Resources, and Assessment (3 S.H.)

The major focus of this course is on preparing and assessing ESL materials and resources and on language testing and evaluation. Students examine principles guiding successful ESL material development and test creation, analyze existing ESL resources, develop course materials, evaluate materials for their suitability in a sample lesson, and prepare tests for a variety of student levels. Prerequisites: ENG 111 and ENG 350 or instructor's permission.

490 - Portfolio (1 S.H.)

Students compile 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. Grade only.

HUMANITIES (HUM)**140 - Approaches to Film (3 S.H.)**

A general introduction to the art of the film with focus on the non-technical aspects of the art. Grade only. Offered each semester.

ENVIRONMENTAL SCIENCE

ENVIRONMENTAL SCIENCE STEERING COMMITTEE

Biology:	<i>Michael Delong, Neal Mundahl</i> Pasteur Hall, Room 215 (507-457-5165)
Chemistry:	<i>Mark Engen, Jeanne Franz</i> Pasteur Hall, Room 312 (507-457-5290)
Geoscience:	<i>Toby Dogwiler</i> Pasteur Hall, Room 114 (507-457-5260)

PURPOSE

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 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 one of following degrees:

- B.S. Biology - Environmental Science Option
- B.S. Chemistry - Environmental Science Option
- B.S. Geoscience - Environmental Science Option

Graduates of this program are broadly educated and prepared for graduate school or entry-level positions in a variety of environmental science fields. The Environmental Science Program is 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. Field work is an integral part of the environmental science curriculum and the capstone research project in particular. Students participate in ongoing research projects such as the one being conducted at the field station located on the Featherstone Farm in the Wiscoy Valley. 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.

Students are encouraged to maintain a broad perspective and to augment their in-depth study with an understanding of the connections among public policy, economics, law, and the adjustment to social needs, which can result in the destruction or the preservation of the environment.

* "Additional Requirements" course as defined in Item 3, page 19.

ENVIRONMENTAL SCIENCE CORE REQUIREMENTS- ALL OPTIONS

48-50 S.H. (These courses are listed again under each department option.)

- * CHEM 212 Principles of Chemistry I (4)
- * CHEM 213 Principles of Chemistry II (4)
- * CHEM 320 Environmental Chemistry (4)
- * BIOL 241 Basics of Life (4)
- * BIOL 242 Organismal Diversity (4)
- BIOL 312 General Ecology (3)
- BIOL 313 General Ecology Laboratory (1)
- * GEOS 120 Dynamic Earth (4)
- * GEOS 130 Earth and Life Through Time (4)
- GEOS 240 Watershed Science (4)

The following two courses (6 S.H.)

- 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 415 Ecology of Large Rivers (4)
- BIOL 420 Limnology (4)
- CHEM 425 Analytical Chemistry I (4)
- 👉 CHEM 436 Topics in Environmental Chemistry (3)
- GEOS 325 Environmental Geoscience (3)
- 👉 GEOS 415 Advanced Geomorphology (4)
- 👉 GEOS 370 GIS and Imaging Techniques (3)
- 👉 GEOS 420 Applied Hydrogeology (4)
- GEOS 425 Global Climate Change (3)

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)

B.S. MAJOR BIOLOGY - ENVIRONMENTAL SCIENCE OPTION (BIES)

94-95 S.H. (No Minor required)

BIOLOGY CORE COURSES - BIOL (18 S.H.)

- 241 Basics of Life (4)
- 242 Organismal Diversity (4)
- 312 General Ecology (3)
- 313 General Ecology Lab (1)
- 👉 308 Cell Biology (3)
- 👉 310 Genetics (3)

REQUIREMENTS - BIOL (12 S.H.)

- 318 Invertebrate Zoology (4) OR BIOL 319 Vertebrate Biology (4)
- 335 Plant Ecology (4) OR BIOL 350 Plant Taxonomy (4)
- 👉 315 Environmental Biology (3)
- 495 Seminar-Environmental Science (1)

ELECTIVES - BIOL (7 S.H.)

- 318 Invertebrate Zoology (4)
- 319 Vertebrate Biology (4)
- 320 Ornithology (4)
- 335 Plant Ecology (4)
- 350 Plant Taxonomy (4)
- 360 Entomology (4)
- 380 Evolution (3)
- 405 Fishery Biology (3)
- 409 Microbiology (4)
- 👉 415 Ecology of Large Rivers (4)
- 420 Limnology (4)
- 👉 423 Ecosystem Ecology (3)
- 424 Biogeography (3)
- 425 Animal Behavior (3)

BIOLOGY CAPSTONE REQUIREMENT (3 S.H.)

- 👉 499 Student Research (3)

OTHER REQUIRED COURSES (54-55 S.H.)

Chemistry (16 S.H.)

- CHEM*212,*213 Principles of Chemistry I, II (8)
- CHEM320 Environmental Chemistry (4)
- CHEM340 Organic Chemistry Survey (4)

Geoscience (12 S.H.)

- * GEOS 120 Dynamic Earth (4)
- * GEOS 130 Earth and Life Through Time (4)
- GEOS 240 Watershed Science (4)

Mathematics (9 S.H.)

- MATH 150 Modeling Using Precalculus and Statistics (3)
- MATH 155 Calculus Based Modeling (3)
- MATH 305 Biometry (3)

Note: Calculus I, II (MATH 160, 165) may be submitted for MATH 150, 155.

Physics (8 S.H.)

- PHYS *201, *202 General Physics (8)

Note: University Physics I, II (*221, *222) may be submitted for General Physics I, II (201, 202).

The following two courses (6 S.H.):

- ECON 315 Environmental and Natural Resource Economics (3)
- POLS 340 Environmental Policy (3)

One of the following five courses (3-4 S.H.):

- CHEM 425 Analytical Chemistry I (4)
- 👉 CHEM 436 Topics in Environmental Chemistry (3)
- GEOS 325 Environmental Geoscience (3)
- 👉 GEOS 415 Advanced Geomorphology (4)
- 👉 GEOS 420 Applied Hydrogeology (4)
- GEOS 425 Global Climate Change (3)

B.S. MAJOR CHEMISTRY - ENVIRONMENTAL SCIENCE OPTION (CHES)

92-93 S.H.

CHEMISTRY CORE COURSES - CHEM (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)

REQUIREMENTS - CHEM (10 S.H.)

- 320 Environmental Chemistry (4)
- 👉 430 Individual Problems (2)
- 👉 436 Topics in Environmental Chemistry (3)
- 👉 475 Chemistry Seminar (1)

ELECTIVES - CHEM (4 S.H.)

- 400 Biochemistry I (4)
- 401 Biochemistry II (3)
- 410 Polymer Chemistry (3)
- 👉 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 (1) OR other advanced chemistry electives as approved by the Chemistry Department

OTHER REQUIRED COURSES (49-50 S.H.)

Biology (12 S.H.)

- * BIOL 241 Basics of Life (4)
- * BIOL 242 Organismal Diversity (4)
- BIOL 312,313 General Ecology lecture and lab (4)

Geoscience (12 S.H.)

- * GEOS 120 Dynamic Earth (4)
- * GEOS 130 Earth and Life through Time (4)
- GEOS 240 Watershed Science (4)

Mathematics (8 S.H.)

- MATH 160, 165 Calculus I, II (8)

Physics (8 S.H.)

- PHYS *221, *222 University Physics I, II (8)

The following two courses (6 S.H.):

- ECON 315 Environmental and Natural Resource 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)
- ☞ GEOS 415 Advanced Geomorphology (4)
- GEOS 325 Environmental Geoscience (3)
- ☞ GEOS 370 GIS and Imaging Techniques (3)
- ☞ GEOS 420 Applied Hydrogeology (4)
- GEOS 425 Global Climate Change (3)

B.S. MAJOR - GEOSCIENCE: ENVIRONMENTAL SCIENCE OPTION (GEES)

92 - 96 S.H. (No Minor Required)

GEOSCIENCE CORE COURSES - GEOS (23 S.H.)

- * 120 Dynamic Earth (2)
- * 130 Earth and Life through Time (4)
- 220 Minerals and Rocks (4)
- ☞ 280 Field and Analytical Methods I (2)
- 330 Structural Geology (4)
- ☞ 340 Sedimentology and 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.

REQUIREMENTS - GEOS (20-21 S.H.)

- 325 Environmental Geoscience (3)
- 240 Watershed Science (4)
- ☞ 415 Advanced Geomorphology (4)
- ☞ 370 GIS and 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.)

- * BIOL 241 Basics of Life (4)
- * BIOL 242 Organismal Diversity (4)
- BIOL 312, 313 General Ecology, Ecology Lab (4)

Chemistry (12 S.H.)

- CHEM*212, *213, Principles of Chemistry I, II (8)
- CHEM320 Environmental Chemistry (4)

Mathematics (6 S.H.)

- MATH 150 Modeling Using Precalculus and Statistics (3)
- MATH 155 Calculus Based Modeling (3) OR may substitute MATH 120 and MATH 160 OR MATH 160 and MATH 165

Physics (4 S.H.)

One of the following three courses:

- * PHYS 115 Conceptual Physics (4)
- * PHYS 201 General Physics I (4)
- * PHYS 221 University Physics I (4)

The following two courses (6 S.H.):

- ECON 315 Environmental and Natural Resource 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) (See Note below.)
- BIOL 420 Limnology (4) (See Note below.)
- * CHEM 425 Analytical Chemistry I (4)
- ☞ CHEM 436 Topics in Environmental Chemistry (3)

† If students take BIOL 415 or BIOL 420 as their elective from this group of courses, they may not choose the same course as an elective course under "Electives" below.

ELECTIVES (6-8 S.H.)

(See Note below.)

Courses totaling 6-8 S.H. to be chosen from:

Geoscience

- GEOS 385 Geology of North America (3)
- GEOS 425 Global Climate Change (3)
- GEOS 430 Chemistry and Physics of the Earth (3)
- GEOS 480 Field and Analytical Methods II (1)

Biology

- ☞ BIOL 415 Ecology of Large Rivers (4) OR BIOL 420, Limnology (4)

Chemistry

- CHEM 340 Organic Chemistry Survey (4)
- CHEM 350 Principles of Organic Chemistry I (4)

Statistics

- * STAT 210 Statistics (3)

Note: The courses selected as "Electives" must not duplicate the courses selected under "Other Required Courses" above.

FAA AIRWAY SCIENCE CERTIFICATION PROGRAM

146-162 S.H. (FAA Airway Science Certification)
Pasteur Hall, Room 114A (507-457-5264)

George Bolon, Advisor

PURPOSE

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 airspace system of the future. Therefore, the FAA initiated the Airway Science curriculum to prepare the next generation of aviation technicians, managers, and aircraft crew members. The FAA has approved WSU as an Airway Science University; WSU offers an Airway Science Program with two options: Computer Science Option and Management Option. When students in the Airway Science Program satisfy the respective major department degree requirements, they are granted either of the following degrees:

- B.S. in Computer Science with a Physics/Airway Science/Aviation minor
- B.S. in Business Administration with a Physics/Airway Science/Aviation minor

To fulfill the curriculum for FAA Airway Science Certification, students must complete additional requirements beyond the bachelor degree as outlined in this section.

Airway Science Options

The 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.

* "Additional Requirements" course as defined in Item 3, page 19.

COMPUTER SCIENCE OPTION

Degree program: 128 S.H.; Certification: 141 S.H.

UNIVERSITY STUDIES (USP) (46 S.H.)

BASIC SKILLS (12 S.H.)

ARTS AND SCIENCES (22 S.H.)

Humanities (6 S.H. - two departments)

HIST 122 Western Civilization 1815 to Present (3)

Electives from USP-approved courses offered by another department other than History

Natural Science (7 S.H.)

GEOS 115 Meteorology (4)

PHYS 200 Fundamentals of Aviation (3)

Social Science (6 S.H.)

ECON 201 Principles of Microeconomics (3)

PSY 210 General Psychology (3)

Fine and Performing Arts (3 S.H.)

UNITY AND DIVERSITY (12 S.H.)

Critical Analysis (3 S.H.)

Science and Social Policy (3 S.H.)

Global or Multicultural Perspectives (3 S.H.)

Contemporary Citizenship or Democratic Institutions (3 S.H.)

Note: All students must fulfill 12 S.H. of flag requirements.

REQUIRED COURSES (47 S. H.)

Computer Science - CS (33 S.H.)

234 Algorithms and Problem Solving (4)

250 Algorithms and Data Structures (4)

301 Discrete Structures for Computer Science (3)

341 Advanced Data Structure (4)

351 Introduction to Assembler and Architecture (3)

371 Object Oriented Design and Development (3)

405 Operating Systems (3)

✍️ 410 Software Engineering (3)

415 Principles of Program Language (3)

435 Theory of Computation (3)

Mathematics - MATH (12 S.H.)

160 Calculus I (4)

165 Calculus II (4)

210 Foundations of Mathematics(4)

Physics - PHYS (2 S.H.)

332 Computer Organization (2)

ELECTIVES (21 S. H.)

Computer Science

385 Applied Database Management Systems (3)

✍️ 411 Software Testing (3)

412 Networking/Telecommunications (3)

413 Advanced Networking (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 (3) OR

✍️ 470 System Design with CASE Tools (3)

476 Distributed System: Concepts and Designs (3)

485 Database System Design (3)

491 Practicum in Computer Science (6)

Physics - PHYS (4)

333 Microprocessor Electronics (4)

REQUIRED AVIATION/PHYSICS - PHYS (9 S.H.)

205 Airspace, Communications and Regulations (1)

383 Air Traffic Control (3)

387 Flight Safety (3)

388 Legislative and Legal Aspects (2)

ADDITIONAL REQUIREMENTS FOR FAA AIRWAY SCIENCE CERTIFICATION

30 S.H.

Business Administration (3 S.H.)

✍️ BUSA 220 Business Statistics (3)

BUSA 301 Business Law I (3)

MGMT 315 Principles of Management (3) OR

✍️ MGMT 317 Management of Human Resources (3)

✍️ MGMT 325 Organization of Dynamics (3)

OM 334 Production and Operations Management (3)

Chemistry (4 S.H.)

CHEM 212 Principles of Chemistry (4)

Geography (3 S.H.)

GEOG 212 Physical Geography (3)

Physics (8 S.H.)

PHYS 201 General Physics I (4)

PHYS 202 General Physics II (4)

MANAGEMENT OPTION

Degree Requirement: 128 S.H. Certification: 163 S.H.

UNIVERSITY STUDIES (USP) (53 S.H.)

BASIC SKILLS (12 S.H.)

Selected courses must include MATH 140 Applied Calculus (3).

ARTS AND SCIENCES (29 S.H.)

Humanities (6 S.H. - two departments)

HIST 122 Western Civilization 1815 to Present (3)

Electives from USP-approved courses offered by another department other than History

Natural Science (8 S.H.)

GEOS 115 Meteorology (4)

PHYS 201 General Physics I (4)

Social Science (12 S.H.)

ECON 201 Principles of Microeconomics (3)

ECON 202 Principles of Macroeconomics (3)

POLS 103 Introduction to Politics (3)

PSY 210 General Psychology (3)

Fine and Performing Arts (3 S.H.)

UNITY AND DIVERSITY (12 S.H.)

Critical Analysis (3 S.H.)

Science and Social Policy (3 S.H.)

Global or Multicultural Perspectives (3 S.H.)

Contemporary Citizenship or Democratic Institutions (3 S.H.)

Note: All students must fulfill 12 S.H. of flag requirements.

MANAGEMENT (60 S.H.)

Business Administration (36 S.H.)

MIS 202 Microcomputers in Business (3)

✍️ BUSA 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)

BUSA 320 Intermediate Business Statistics (3)

OM 334 Production and Operations Management (3)

BUSA 340 Management Science (3)

MIS 362 Management Information Systems (3)

OM 434 Quality and Productivity Management (3) OR

MGMT 435 Managing for Quality (3) OR

MGMT 495 Strategic Management (3)

Accounting (3 S.H.)

ACCT 212 Managerial Accounting (3)

Finance (3 S.H.)

FIN 360 Corporate Finance (3)

Marketing (3 S.H.)

MKTG 315 Principles of Marketing (3)

BUSINESS ADMINISTRATION ELECTIVES (15 S.H.)

Select electives from either Option A or Option B below.

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 Departments of Business Administration, Accounting, Economics and Finance, or Marketing (3)

Option B:

A minor or second major from the Departments 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.)

CS 210 Computers in Society (3)

AVIATION (18 S.H.)

Physics - PHYS (18 S.H.)

- 200 Fundamentals of Aviation (3)
- 205 Airspace, Communications and Regulations (1)
- 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)

ADDITIONAL REQUIREMENTS FOR FAA AIRWAY SCIENCE CERTIFICATION

32 S.H.

Chemistry (4 S.H.)

- CHEM 212 General Inorganic Chemistry (4)

Communication Studies (9 S.H.)

- CMST 387 Interpersonal Communications (3)
- CMST 466 Organization Communication (3)
- CMST 485 Senior Seminar in Communications (3)

Geography (3 S.H.)

- GEOG 212 Physical Geography (3)

Mathematics (6 S.H.)

See advisor for specific recommendations.

Physics (4 S.H.)

- PHYS 202 General Physics II (4)

Psychology (3 S.H.)

- PSY 305 Theories of Personality (3)

Sociology (3 S.H.)

- SOC 150 Introduction to Sociology (3)

FOREIGN LANGUAGES

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

www.winona.edu/foreignlanguages/

Lilian Ramos (Chairperson): German and Spanish;

Frisk: French and Spanish

Fernandez Iglesias: Spanish

Gonzalez: Spanish

Mazur: German, French, and Spanish

Tenenbaum: French and Spanish

FACULTY

Juan Fernandez Iglesias, Assistant Professor; B.A., Universidad de Santiago de Compostela; M.A., Ph.D., University of Kansas; 2004 -

Timothy Frisk, Associate Professor; B.S., Winona State University; B.A., M.A., Ph.D., University of Minnesota; 1990 -

Armando R. Gonzalez, Assistant Professor; B.A., M.A., Ph.D., University of Iowa; 2004 -

Ronald M. Mazur, Professor; B.A., University of Detroit; M.A., Ph.D., University of Michigan; 1978 -

Lilian 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 -

PURPOSE

Foreign language 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.S. (teaching) major in French
- Complete B.A./B.S. major/minor in German
- Complete B.S. (teaching) major in German
- Complete B.A./B.S. major/minor in Spanish
- Complete B.S. (teaching) major in Spanish

The Foreign Language Department is authorized to recommend graduates for licensure in French, German, and Spanish majors. (Minnesota does not grant teaching licenses for foreign language minors.) All coursework for the degrees is available on campus. Language courses 101, 102, 201, 202 are offered on a yearly basis. 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.

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.

PROFESSIONAL EDUCATION SEQUENCE FOR SECONDARY MAJORS

(32-36 S.H.)

Note: Education courses and student teaching are provided by the WSU Education Department. These courses require formal admission to the teacher education program. Contact the Education Department for further information.

- * EDUC 305 Human Development and Learning (4)
- EDUC 308 Human Relations and Student Diversity (3)
- EDUC 312 Instructional Planning and Assessment: Secondary (3)
- EDUC 429 Secondary Reading and Teaching Strategies (4)
- EDUC 449 Middle Level Philosophy, Organization and Planning (3)
- EDUC 459 The Professional Educator (3)
- EDUC 465 Student Teaching (12-16)

PLACEMENT

All students with prior study of a foreign language are strongly encouraged to take a placement examination to determine the correct level of coursework at WSU. Students who are high school graduates from a French-, Spanish-, or German-speaking country cannot register or receive credit for French, German, or Spanish 101 or 102. These students can register for a 201 or 202 course only if they have declared a major or a minor in a foreign language. Students should consult with the department chairperson for details.

Note: Courses beyond the intermediate level are only offered every other year. This means that students who have not completed intermediate courses during their sophomore year will have difficulty graduating in four years with a foreign language major unless they participate in a department- or university-approved study abroad program. Students of Spanish can participate in the Granada, Spain program. The foreign language faculty reserves the right to depart from these guidelines when warranted by exceptional circumstances.

CREDIT FOR PREVIOUS LANGUAGE STUDY

The department recommends that students who meet the prerequisites for French, German, or Spanish 101, 102, or 201 enroll in the next higher elementary or intermediate course. By earning a grade of "A" or "B" in WSU's language courses 102, 201, or 202, students may obtain retroactive credit for course 101 and any sequel courses below the course in which they earned the "A" or "B." Qualifying students may apply for retroactive credit by completing the appropriate form(s) and paying a fee of \$5 per credit in order to receive a grade of "P" (pass) in the appropriate course(s). For information about credit by examination, see page 24. The foreign language faculty reserves the right to depart from these guidelines when warranted by exceptional circumstances.

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 or consult the Study Abroad section in this catalog (page 30). Students who wish to receive University credit for participation in a study abroad program must have prior approval from the Foreign Language Department. The foreign language majors and minors are strongly encouraged to study abroad in order to acquire language proficiency. Students have the opportunity to study Spanish with a WSU-sponsored program in Granada, Spain.

PASS/NO CREDIT (P/NC) COURSES

Elementary and intermediate language courses (101, 102, 201 and 202) may be taken for pass/no credit. Except for internships and practica, students must take all courses in their major, minor, options, concentrations, and licensures on a grade-only basis. In addition, a pass will be accepted for Intermediate 201 in French, German, or Spanish for those majors/minors who received an "A" or "B" in Intermediate 202 French, German, or Spanish. In this instance, students can qualify for retroactive credit for Intermediate 201 after completing the appropriate forms. The P/NC option is available to non-majors unless otherwise noted. Courses offered on a pass/no credit-only or grade-only basis are so designated in the course descriptions.

GPA REQUIREMENTS

1. A cumulative GPA of 2.00 to graduate with a foreign language major or minor.
2. A cumulative 2.50 GPA in the courses taken for the B.A. major or minor.
3. A cumulative 2.75 GPA in the courses taken for the B.S. teaching major.
4. A cumulative 2.75 GPA to be admitted to teacher education.

For a checklist of the University's graduation requirements, see page 22.

Note: Specialized study courses are offered on a two-year cycle. Therefore, students planning to major or minor in a foreign language should register for all specialized study courses offered in any given semester if they plan to graduate with a foreign language major or minor in four years.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Department of Foreign Languages offers the following flag courses in the University Studies Program:

FLAGS

FRENCH

Oral

FREN 401 Phonetics and Pronunciation (French) (3)

Math/Critical Analysis

FREN 403 French Literature II (3)

Writing

FREN 301 French Composition (4)

FREN 402 French Literature I (3)

GERMAN

Oral

GERM 302 German Conversation and Composition (4)

Math/Critical Analysis

GERM 403 20th Century Literature (German) (3)

Writing

GERM 401 Medieval to Baroque Literature (3)

GERM 402 18th- and 19th-Century Literature (3)

SPANISH

Oral

SPAN 302 The Culture of Spain (3)

Math/Critical Analysis

SPAN 402 Spanish Peninsular Literature II (3)

Writing

SPAN 301 Spanish Composition and Conversation (4)

SPAN 401 Spanish Peninsular Literature I (3)

Flag courses that can be used to satisfy Foreign Language major/minor requirements are identified in the lists of required courses and electives in this section.

B. A. MAJOR - FRENCH (FREN) 36 S.H.

(Minor Required in another discipline or in another language)

LANGUAGE SKILLS FOR MAJORS AND MINORS (8 S.H.)

FREN 201 Intermediate French I (4)

FREN 202 Intermediate French II (4)

SPECIALIZED STUDY - FREN (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)

303 Advanced Grammar and Stylistics (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) (FRNT) 40 S.H.

(Minor Required in another discipline or in another language)

LANGUAGE SKILLS (8 S.H.)

FREN 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 Education Department section of this catalog (page 87), or refer to these documents: *Field Experience Handbook for the WSU Teacher Education Program* and the *Teacher Education Program Guide*.

SPECIALIZED STUDY (32 S.H.)

FREN 204 Special Topics in French Literature (2)

FREN 205 Special Topics in French Culture (2)

 FREN 301 French Composition (4)

FREN 302 French Civilization and Culture (4)

FREN 303 Advanced Grammar and Stylistics (4)

 FREN 401 Phonetics and Pronunciation (3)

 FREN 402 French Literature I (3)

 FREN 403 French Literature II (3)

FREN 404 French Literature III (3)

FLAN 405 Methods of Teaching a Modern Foreign Language (4)

B.A. MINOR - FRENCH (FREN) 28 S.H.

LANGUAGE SKILLS (8 S.H.)

FREN 201 and 202

SPECIALIZED STUDY - FREN (20 S.H.)

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)
- 303 Advanced Grammar and Stylistics (4)

Choose two of the following courses:

- ☞ 401 Phonetics and Pronunciation (3)
- ☞ 402 French Literature I (3)
- ☞ 403 French Literature II (3)
- 404 French Literature III (3)

B.A. MAJOR - GERMAN (GERM) 32 S.H.

(Minor Required in another discipline or in another language)

LANGUAGE SKILLS (8 S.H.)

- GERM201 Intermediate German I (4)
- GERM202 Intermediate German II (4)

SPECIALIZED STUDY-GERM (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 Conversation and Composition (4)
- 303 German Culture and Civilization (4)
- ☞ 401 Medieval to Baroque Literature (3)
- ☞ 402 18th- and 19th- Literature (3)
- ☞ 403 20th Century Literature (3)

B.S. MAJOR - GERMAN (Teaching) (GRMT) 36 S.H.

(Minor Required)

LANGUAGE SKILLS (8 S.H.)

- GERM 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 Education Department section of this catalog (page 87), or refer to these documents: *Field Experience Handbook for the WSU Teacher Education Program* and the *Teacher Education Program Guide*.

SPECIALIZED STUDY-GERM (28 S.H.)

- GERM 204 Special Topics: German Literature (2)
- GERM 205 Special Topics: German Culture and Language (2)
- GERM 301 Advanced Reading and Structural Analysis (3)
- ☞ GERM 302 German Conversation and Composition (4)
- GERM 303 German Culture and Civilization (4)
- ☞ GERM 401 Medieval to Baroque Literature (3)
- ☞ GERM 402 18th- and 19th-Century Literature (3)
- ☞ GERM 403 20th Century Literature (3)
- FLAN 405 Methods of Teaching a Modern Foreign Language (4)

B.A. MINOR - GERMAN (GERM) 24 S.H.

LANGUAGE SKILLS (8 S.H.)

- GERM 201 and 202

SPECIALIZED STUDY-GERM (16 S.H.)

- 204 Special Topics: German Literature (2) OR
- 205 Special Topics: German Culture and Language (2)
- 301 Advanced Reading and Structural Analysis (3)
- ☞ 302 German Conversation and Composition (4)
- 303 German Culture and Civilization (4)

Choose one of the following three courses:

- ☞ 401 Medieval to Baroque Literature (3)
- ☞ 402 18th- and 19th- Literature (3)
- ☞ 403 20th Century Literature (3)

B.A. MAJOR - SPANISH (SPAN) 32 S.H.

(Minor Required in another discipline or in another language)

LANGUAGE SKILLS (8 S.H.)

- SPAN 201 Intermediate Spanish I (4)
- SPAN 202 Intermediate Spanish II (4)

SPECIALIZED STUDY-SPAN (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 Peninsular Literature I (3)
- ☞ 402 Spanish Peninsular Literature II (3)
- 403 Latin American Literature (4)

B.S. MAJOR - SPANISH (Teaching) (SPNT) 36 S.H.

(Minor Required in another discipline or in another language)

LANGUAGE SKILLS (8 S.H.)

- SPAN 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 Education Department section of this catalog (page 87), or refer to these documents: *Field Experience Handbook for the WSU Teacher Education Program* and the *Teacher Education Program Guide*.

SPECIALIZED STUDY-SPAN (28 S.H.)

- SPAN 204 Special Topics in Hispanic Literature (2)
- SPAN 300 Spanish Linguistics and Phonetics (2)
- ☞ SPAN 301 Spanish Composition and Conversation (4)
- ☞ SPAN 302 The Culture of Spain (3)
- SPAN 303 The Culture of Latin America (3)
- ☞ SPAN 401 Spanish Peninsular Literature I (3)
- ☞ SPAN 402 Spanish Peninsular Literature II (3)
- SPAN 403 Latin American Literature (4)
- FLAN 405 Methods of Teaching a Modern Foreign Language (4)

B.A. MINOR - SPANISH (SPAN) 24 S.H.

LANGUAGE SKILLS (8 S.H.)

- SPAN 201 and 202

SPECIALIZED STUDY-SPAN (16 S.H.)

- 204 Special Topics in Hispanic Literature (2) OR
- 300 Spanish Linguistics and Phonetics (2)
- ☞ 301 Spanish Composition and Conversation (4)
- ☞ 302 The Culture of Spain (3) OR
- 303 The Culture of Latin America (3)
- ☞ 401 Spanish Peninsular Literature I (3) OR
- ☞ 402 Spanish Peninsular Literature II (3)
- 403 Latin American Literature (4)

COURSE DESCRIPTIONS

FOREIGN LANGUAGE (FLAN)

405 - Methods of Teaching a Modern Foreign Language (4 S.H.)

Discussion of foreign language teaching methods with respect to their effectiveness in achieving pedagogical goals. Practical applications are offered. Must be taken before the student teaching assignment. Prerequisite: FREN, GERM, or SPAN 202 or equivalent. Offered every two years.

ARABIC (ARAB)

101 - Arabic for Beginners (4 S.H.)

This course is an introduction to the Arabic language and its script. ARAB 101 is a combination of oral and written exercises. Prerequisites: None. Letter grade only. Offered according to demand.

102 - Introduction to Arabic Grammar and Literature (4 S.H.)

This is a continuation of ARAB 101. Students will learn to recognize patterns in the language and to differentiate between verbs, nouns and adjectives. Prerequisite: ARAB 101 or equivalent. Letter grade only. Offered according to demand.

FRENCH (FREN)

101 - Elementary French I (4 S.H.)

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.)

Continuation of FREN 101. Prerequisites: FREN 101 or 1-2 years of high school French or equivalent. Offered yearly.

201 - Intermediate French I (4 S.H.)

Further development of communication skills. In-depth study of grammar. Selected readings in French. Prerequisite: FREN 102 or equivalent of three years of high school French. Offered yearly.

* "Additional Requirements" course as defined in Item 3, page 19.

202 - Intermediate French II (4 S.H.)

Continuation of FREN 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: FREN 201 or equivalent to 4-5 years of high school French. Offered yearly.

204 - Special Topics in French Literature (2 S.H.)

Directed readings of French contemporary writers. Focusing particularly on African writers and French writers outside of France. Reading knowledge of French required. Offered every two years.

205 - Special Topics in French Culture (2 S.H.)

Study of contemporary issues in the French media, particularly cinema. Prerequisite: 202 or equivalent. Offered every two years.

301 - French Composition (4 S.H.)

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: FREN 202 or equivalent. Offered every two years.

302 - French Civilization and Culture (4 S.H.)

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: FREN 202 or equivalent. Offered every two years.

303 - Advanced Grammar and Stylistics (4 S.H.)

This course is an introduction to literary instruction as well as a practice of French advanced writing. It is a transition between FREN 202 (fourth-semester French) and French literature courses. Prerequisite: FREN 202 or equivalent. Letter grade only. Offered yearly.

401 - Phonetics and Pronunciation (3 S.H.)

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: FREN 202 or equivalent. Offered every two years.

402 - French Literature I (3 S.H.)

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: FREN 202 or equivalent. Offered every two years.

403 - French Literature II (3 S.H.)

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: FREN 202 or equivalent. Offered every two years.

404 - French Literature III (3 S.H.)

Nineteenth and 20th century French literature. Romanticism, the Parnasse, Symbolism and Naturalism, as well as Surrealism, Existentialism, and contemporary writers are studied. Prerequisite: FREN 202 or equivalent. Offered every two years.

GERMAN (GERM)

101 - Elementary German I (4 S.H.)

Introductory German for students with little or no prior German training. Instruction in speaking, listening, reading, and writing through classroom drill and language lab work. Offered yearly.

102 - Elementary German II (4 S.H.)

Continuation of GERM 101. Prerequisite: GERM 101 or two years of high school German or equivalent. Offered yearly.

201 - Intermediate German I (4 S.H.)

Further development of communication skills. Study of grammar essential to skills. Selected readings in German. Prerequisite: GERM 102 or equivalent of three years of high school German. Offered yearly.

202 - Intermediate German II (4 S.H.)

Continuation of GERM 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: GERM 201 or equivalent of five years of middle school/high school German. Offered yearly.

204 - Special Topics: German Literature (2 S.H.)

The course focuses on an individual author, a literary period/movement, or a special literary category/genre. Prerequisite: GERM 202 or equivalent. Offered every two years.

205 - Special Topics: German Culture and Language (2 S.H.)

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: GERM 202 or equivalent. Offered every two years.

301 - Advance Reading and Structural Analysis (3 S.H.)

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: GERM 202 or equivalent. Offered every two years.

302 - German Conversation and Composition (4 S.H.)

The practice of advanced language skills through guided conversation and composition. Prerequisite: GERM 202 or equivalent. Offered every two years.

303 - German Civilization and Culture (4 S.H.)

The evolution of German culture from its beginnings to the present, including analysis of historical, literary, and artistic movements. Prerequisite: GERM 202 or equivalent. Offered every two years.

401 - Medieval to Baroque Literature (3 S.H.)

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). Class work focuses on the close reading and critical discussion of texts in their literary and cultural contexts. Prerequisite: GERM 202 or equivalent. Offered every two years.

402 - 18th- and 19th- Literature (3 S.H.)

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: GERM 202 or equivalent. Offered every two years.

403 - 20th- Century Literature (3 S.H.)

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: GERM 202 or equivalent. Offered every two years.

SPANISH (SPAN)

101 - Elementary Spanish I (4 S.H.)

Introductory Spanish for students with little or no prior training in Spanish. Instruction in speaking, listening, reading and writing through classroom drill and language lab work. Offered yearly.

102 - Elementary Spanish II (4 S.H.)

Continuation of 101. Prerequisite: SPAN 101 or equivalent. Offered yearly.

201 - Intermediate Spanish I (4 S.H.)

Further development of communication skills. Study of grammar essential to skills. Selected readings in Spanish. Prerequisite: SPAN 102 or equivalent. Offered yearly.

202 - Intermediate Spanish II (4 S.H.)

Continuation of SPAN 201. Further development of skills essential for communication. Study of grammar and syntax. Additional practice in reading and writing. Prerequisite: SPAN 201 or equivalent. Offered yearly.

204 - Special Topics in Hispanic Literature (2 S.H.)

Directed readings in Hispanic literature. Prerequisite: SPAN 202 or equivalent. Offered every two years.

300 - Spanish Linguistics and Phonetics (2 S.H.)

Practice in all the sounds of the language with observations on its development from Latin. Exploration of the grammatical structures of Spanish. Prerequisite: SPAN 202 or equivalent. Offered every two years.

301 - Spanish Composition and Conversation (4 S.H.)

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: SPAN 202 or equivalent. Offered every two years.

302 - The Culture of Spain (3 S.H.)

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: SPAN 202 or equivalent. Offered every two years.

303 - The Culture of Latin America (3 S.H.)

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: SPAN 202 or equivalent. Offered every two years.

401 - Spanish Peninsular Literature I (3 S.H.)

The course is taught in Spanish. Class work 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.)

The course is taught in Spanish. It covers Peninsular literature of the Age of Enlightenment, the Romantic period, the generation of 98, the generation of 27, the literature of the Civil War, and the post-Civil War as well as contemporary authors. Prerequisite: SPAN 202 or equivalent. Offered every two years.

403 - Latin American Literature (4 S.H.)

A survey of Latin American literature from pre-colonial to contemporary literature. This course includes the study of pre-Hispanic writings (Nahautl, maya, quechua), Los Cronistas, Colonial Literature, the Neoclassicism, the Romanticism, and the transition of the "gaugho Epic" from the 19th to the 20th century. It also includes Modernism, the Criollismo, the post-modernism, the Magic Realism, the Boom with writers such as Gabriel Garcia, Marquez, Carols Fuentes, Cortazar, and Vargas Llosa, the theater and other essay writers. Prerequisite: SPAN 202 or equivalent. Offered every two years.

GEOGRAPHY

Minné Hall, Room 228 (507-457-5432)

FACULTY

Jerry Gerlach, Professor; B.A., M.A., University of Nebraska; Ph.D., University of Oklahoma; 1988 -

PURPOSE

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, and international relations.

GRADUATION REQUIREMENTS

For a checklist of the University's graduation requirements, see page 22. Specific requirements for geography minors are as follows:

- 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.

B.A. MINOR - GEOGRAPHY (GEOG) 24 S.H.

REQUIRED COURSES (12 S.H.)

GEOG 211	Economic Geography (3)
GEOG 212	Physical Geography (3)
GEOG 213	Cultural Geography (3)
GEOG 450	Cartography (3)

ELECTIVES (12 S.H.)

Six credits must be from courses 300-level or above. GEOG 110 does not apply to the minor.

COURSE DESCRIPTIONS (GEOG)

110 - World Regional Geography (3 S.H.)

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.)

A systematic study of the geographic bases of human economic activities in agriculture, mining, and manufacturing. This course explains-by theory and example-why, where, and how activities are distributed in our economic world. Grade only. Offered yearly.

212 - Physical Geography (3 S.H.)

An introduction to the significance and aerial 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.)

An introduction to the significance and aerial 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.)

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.)

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.)

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.)

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.)

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.)

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.)

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.)

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.)

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.)

An in-depth study of tourist locations worldwide. The course emphasizes detailed examination and classification of tourist types and locations. Grade only. Offered every other year.

450 - Cartography (3 S.H.)

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.)

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.)

A course designed to aid those planning to attend graduate school or who have a special area of interest which they 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

<http://www.winona.edu/geology>

Catherine Summa (Chairperson); Toby Dogwiler (Director of Water Resources Center)

FACULTY

Stephen T. Allard, Assistant Professor; B.S., M.S., University of New Hampshire; Ph.D., University of Wyoming; 2002 -

Toby Dogwiler, Assistant Professor; B.A., Wittenberg University; M.Sc., Mississippi State University; Ph.D., University of Missouri, Columbia; 2002 -

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, Professor; B.A., Wellesley College; Ph.D., Massachusetts Institute of Technology; 1996 -

WHY STUDY GEOSCIENCE?

One of the hallmarks of Winona State students is their incredible curiosity about the world around them. The Geoscience Department can help satisfy your curiosity about your natural environment. This curiosity may be stimulated by travels to state and national parks, where you have been confronted by questions about the origin of landscapes and the underlying rocks. Your interest in planet earth may have been heightened by accounts of natural disasters caused by floods, earthquakes, and volcanism, or by concerns for clean air and water and the trend of global warming. Perhaps the realization that energy shortages will become the norm rather than the exception stirs you to action in learning about how we can better manage earth's finite resources. Maybe the spectacular news of extraterrestrial exploration causes you to think about the ways in which geology can help to answer questions about planetary evolution.

If you have such a curiosity about Earth, we invite you to enroll in one or more of the courses offered by the Department of Geoscience, where faculty strive to help you understand how the earth works. Many lower-division geoscience courses fulfill University Studies Program requirements in a broad array of categories and provide a basis for you to make the observations needed to provide possible answers to your questions. By asking the right questions and seeking ways to answer them, you become a more informed citizen. Each year, many of you will decide to seek more depth in understanding earth, and will become a major or minor in geoscience. As a major in one of the geoscience programs, you will prepare for one of the many geoscience careers that are available to graduates in the first decade of this new century. In fact, a recent Yahoo™ survey lists geoscience as one of the top areas of study for successful 21st century employment.

As a Geoscience graduate, you might work to solve a broad range of environmental problems through private industries and consulting firms or in local, county, state and federal governmental agencies. Or you may become a part of the ongoing search for mineral and energy resources. Perhaps you will become a teacher at an elementary school, middle school, secondary school, or in a program of higher education. You might pursue work with a museum, a state or national park system; you might decide to practice environmental law; or you might become a journalist or a writer focusing on earth-related themes. Some day you might start your own business in environmental consulting or energy exploration. The possibilities really are limited only by your imagination: Geoscience is such an interdisciplinary field that it connects in various and still unidentified ways with a wide range of disciplines.

Instead of seeking a career with the B.S. degree, you might decide to continue your education in a graduate program, where your study for the M.S. or other advanced degree will deepen your understanding of the earth and give you additional credentials for your professional career. Even if you don't pursue a career where geoscience is directly applicable, your geoscience major provides an ideal 21st century liberal arts education. Our curriculum provides you a broad preparation in the natural sciences; it helps you develop the skills of observation, hypothesis-building, testing of ideas, and critical thinking, which prepare you to succeed in many other professions including business and law.

DEPARTMENTAL EQUIPMENT AVAILABLE FOR STUDENT USE

The Geoscience Department boasts an impressive array of analytical and field equipment. Students in our program routinely use geotechnical equipment that is typically only found in graduate-level departments and in industry. This hands-on training and experience provides our students a competitive edge in the job market and graduate school.

Throughout the curriculum, courses emphasize both traditional and cutting-edge scientific techniques. During weekly laboratories, students might gage a stream using a Sontek™ FlowTracker Acoustic Doppler Velocimeter and analyze water samples using a Hach™ SensION156 Multi-parameter meter and DR2400 Spectrophotometer. On another day, students might process a rock sample in our state-of-the-art Thin Section Preparation Lab and then investigate the crystallization history preserved in the rock using a Nikon™ petrographic microscope, or they might identify chemical zonation in minerals using our Relion Luminoscope to study cathodoluminescence of crystals. In another course, students take geophysical equipment, such as our 12-channel Geode™ seismic system, out into the field to characterize sub-surface rock layers and analyze environmental hazards associated with caves, sinkholes, and other groundwater-related features.

The department is also actively integrating Geographical Information Systems (GIS) technology into the curriculum. Students learn to solve real world problems by combining survey data collected in the field using our suite of Trimble™ GeoExplorer XT GPS mapping units and Nikon™ reflectorless pulse-laser Total Stations with analysis in our GIS computing facility. Students use GPS/GIS to solve problems ranging from tectonic reconstructions of the North American plate to water resource management in local streams. In an employment market in which GIS experience has almost become a universal job requirement, WSU Geoscience students don't just *know* GIS—they *know how to use it*.

When it is too cold to be in an actual stream, students investigate river processes in the Sediment Transport and River Studies (STaRS) Flume Laboratory. The STaRS Lab was funded through a competitive grant from the National Science Foundation. The flumes, one of which is six feet wide and over 16 feet long, allow large-scale modeling of rivers. Students, from the introductory through senior-level, complete hands-on assignments and directed research that include projects such as modeling the effects of the Lock and Dam system on the Upper Mississippi River. Additionally, the STaRS Lab includes advanced equipment for processing and studying sediments and soils, including a Spectrex™ Laser Particle Counter and a full range of drying ovens, sieve shakers, analytical balances, and combustion furnaces.

CAREER OPPORTUNITIES

Employment opportunities in the geosciences described by the Geological Society of America for the new millennium are bright. The Federal Bureau of Labor reports that demand for earth science professionals will increase over the next decade, particularly in the Midwest. 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 Master of Science degree. 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 earn a Ph.D. degree. According to national teacher-employment surveys, there are employment opportunities for earth science teachers in most regions of the United States. Earth science teachers are employed in middle and secondary schools where earth science is usually a required component of the science curriculum. Up-to-date information on careers in the geosciences, including Earth Science Teaching, can be found through the American Geological Institute (AGI) at <http://www.agiweb.org/careers.html>.

GRADUATE SCHOOL PREPARATION

The Department of Geoscience has an excellent record of placement of graduates into master's and doctoral programs, and most graduates have received financial support for graduate study. Students who are considering graduate studies must supplement their curriculum with a minimum of a full year of chemistry, physics, and calculus. They should also take a summer field course in addition to their 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. Therefore, students should meet with their advisor regularly to do long-range program planning and to ensure timely graduation. Geoscience minors are encouraged to meet with their academic advisor to review their progress in the program.

DEGREE OPTIONS

Geoscience Major

- B.S. 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.
- B.S. Major - 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.
- B.A. Major - Geoscience: Prepares students for careers or graduate study in fields that explicitly integrate geoscience with a second discipline. Students choose their second disciplinary field and work closely with faculty in both disciplines to prepare for post-graduate options.

Earth Science Teaching Major

The B. S. Major Earth Science (Teaching) is designed for students who desire a middle level to secondary school teaching career (grades 5-12); the program conforms to the Minnesota Board of Teaching licensure standards. Students completing this program are eligible to apply for a Minnesota license in General Science for grades 5-8 or a license in Earth and Space Science for grades 9-12.

Geoscience Minor

The B.S. Minor: Geoscience is a flexible program that enables the student to couple his or her interest in geoscience with a second discipline.

PASS/NO CREDIT (P/NC) COURSES

All courses in the Department of Geoscience must be taken on a grade-only basis.

DEPARTMENTAL REQUIREMENTS

Geoscience majors and minors must achieve a grade of "C" or better in all geoscience courses numbered 240 and higher. For a checklist of the University's graduation requirements, see page 22.

GEOSCIENCE HONORS PROGRAM

The Department of Geoscience offers students the option to engage in independent research culminating in an honor's thesis. Geoscience majors maintaining a minimum 3.0 GPA are eligible to participate in the program. Refer to the department website for complete eligibility requirements and expectations.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Department of Geoscience offers the following flag courses in the University Studies Program:

FLAG

Oral

GEOS 370 GIS and Imaging Techniques (3)

Math/Critical Analysis

GEOS 415 Advanced Geomorphology (4)

GEOS 420 Applied Hydrogeology (4)

Writing

GEOS 280 Field and Analytical Methods I (2)

GEOS 340 Sedimentology and Stratigraphy (4)

Flag courses that can be used to satisfy Geoscience major/minor requirements are identified in the lists of required courses and electives in this section.

B.S. MAJOR - GEOSCIENCE: GEOLOGY OPTION (GEGE)

67-71 S.H. (No Minor Required)

CORE REQUIREMENTS - GEOS (23 S.H.)

- 120 Dynamic Earth (4)
- 130 Earth and Life through Time (4)
- 220 Minerals and Rocks (4)
- ✎ 280 Field and Analytical Methods I (2)
- 330 Structural Geology (4)
- ✎ 340 Sedimentology and 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 for GEOS 480 or an upper-division elective.

REQUIRED COURSES (35-36 S.H.)

Geoscience (12 S.H.)

- GEOS 240 Watershed Science (4)
- GEOS 320 Optical Mineralogy and Petrology (4)
- ✎ GEOS 415 Advanced Geomorphology (4) OR
- ✎ GEOS 420 Applied Hydrogeology (4)

Chemistry (4 S.H.)

- * CHEM 212 Principles of Chemistry I (4)

Physics/Chemistry (4 S.H.)

Choose one of the following two courses:

- * PHYS 201 General Physics I (4) OR
- * PHYS 221 University Physics I (4)

Plus one 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.)

- MATH 150 Modeling Using Precalculus and Statistics (3),
MATH 155 Calculus Based Modeling (3) OR
- MATH 120 Precalculus (4) AND MATH 160 Calculus I (4) OR
MATH 160 Calculus I (4) AND MATH 165 Calculus II
(4) OR
- MATH 150 Modeling Using Precalculus (3) AND MATH 160
Calculus I (4) OR
- MATH 155 Calculus Based Modeling (3) AND MATH 165 Calculus
II (4)

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:

- ✎ ENG 439 Technical Writing (3) OR
- ENG 449 Scientific Writing (3)

GEOSCIENCE ELECTIVES (9-12 S.H.)

Select from the "Electives Pool" list (page 114), except for geoscience courses listed as requirements for the major.

B.S. MAJOR - GEOSCIENCE: ENVIRONMENTAL SCIENCE OPTION (GEES)

122-126 S.H. (No Minor Required; this total includes University Studies requirements)

Note: Alliance with environmental science options of other departments is given under "Environmental Science" on page 101.

UNIVERSITY STUDIES COURSES (30 S.H.)

BASIC SKILLS (9 S.H.)

- ENG 111 College Reading and Writing (4)
- CMST 191 Introduction to Public Speaking (3)
- MATH (0 S.H.; included below with MATH 150, 155)
- Courses selected from approved list of physical education activities courses (2)

ARTS AND SCIENCES CORE (15 S.H.)

Humanities (6 S.H.)

Courses selected from approved list of humanities courses

Natural Science (0 S.H.)

(7 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

Fine and Performing Arts (3 S.H.)

Courses selected from approved list of fine & performing arts courses
UNITY AND DIVERSITY (6 S.H.)

Critical Analysis (0 S.H.)

(3 S.H. included below with GEOS 240)

Science and Social Policy (0 S.H.)

(3 S.H. included below with GEOS 325)

Multicultural or Global Perspectives (3 S.H.)

Courses selected from approved list of Multicultural or Global Perspectives courses

Democratic Institutions or Contemporary Citizenship (3 S.H.)

Courses selected from approved list of Democratic Institutions or Contemporary Citizenship courses

Note: Many courses required in the program outlined below can be used to satisfy certain University Studies requirements.

GEOSCIENCE CORE COURSES - GEOS (23 S.H.)

- 120 Dynamic Earth (4)
- 130 Earth and Life through Time (4)
- 220 Minerals and Rocks (4)
- ✎ 280 Field and Analytical Methods I (2)
- 330 Structural Geology (4)
- ✎ 340 Sedimentology and 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 substitute for an upper-division elective.

REQUIREMENTS (20-21 S.H.)

- GEOS 240 Watershed Science (4)
- GEOS 325 Environmental Geoscience (3)
- ✎ GEOS 370 GIS and Imaging Techniques (3)
- GEOS 400 Directed Research in Geoscience (2-3)
- ✎ GEOS 415 Advanced Geomorphology (4)
- ✎ GEOS 420 Applied Hydrogeology (4)

OTHER REQUIRED COURSES (43-44 S.H.)

Biology (12 S.H.)

- * BIOL 241 Basics of Life (4)
- * BIOL 242 Organismal Diversity (4)
- BIOL 312, 313 General Ecology, Ecology Lab (4)

Chemistry (12 S.H.)

- * CHEM 212, 213, Principles of Chemistry I, II (8)
- CHEM 320 Environmental Chemistry (4)

Mathematics (6 S.H.)

- MATH 150 Modeling Using Precalculus and Statistics (3), MATH
155 Calculus Based Modeling (3) OR
- MATH 120 Precalculus (4) AND MATH 160 Calculus I (4)

Physics (4 S.H.)

- * PHYS 115 Conceptual Physics (4) OR
- * PHYS 201 General Physics I (4) OR *221 University Physics I (4)

The following two courses (6 S.H.)

- ECON 315 Environmental and Natural Resource Economics (3)
- * POLS 340 Environmental Policy (3)

One of the following courses (3 (4 S.H.))

Biology

- ✎ BIOL 315 Environmental Biology (3)
- BIOL 335 Plant Ecology (4)
- BIOL 360 Entomology (4)
- † ✎ BIOL 415 Ecology of Large Rivers (4) (See below)
- BIOL 420 Limnology (4) (See below)

Chemistry

- CHEM 425 Analytical Chemistry I (4)
- CHEM 436 Topics in Environmental Chemistry (3)

† **Note:** If BIOL 415 or BIOL 420 is chosen as the elective from this group, that course must not be selected from the list of courses under "Electives" below.

ELECTIVES (6-8 S.H.)

Note: The courses selected as "Electives" must not duplicate the courses selected under "Other Required Courses" above.

Courses totaling 6-8 S.H. to be chosen from:

Geoscience

- GEOS 385 Geology of North America (3)
- GEOS 425 Global Climate Change (3)
- GEOS 430 Chemistry and Physics of the Earth (3)
- GEOS 480 Field and Analytical Methods II (1)

Biology

- BIOL 415 Ecology of Large Rivers (4) OR
- BIOL 420 Limnology (4)

Statistics

- STAT 210 Statistics (3)

B.A. MAJOR - GEOSCIENCE

This program prepares students for graduate study or employment in geologic disciplines or in a variety of other disciplines, depending on the student's chosen minor field. The goal is to prepare students for success in an increasingly interdisciplinary world. Students should speak with a Geoscience department advisor about their career goals so that this program can be tailored to best suit their goals.

Students choose a minor (or double major) field that they must relate to their work in geoscience by completing an internship or research project. Students must obtain approval from the Geoscience department before engaging in this work. The research project topic must integrate geoscience with the second discipline.

The flexibility of this program enables students to pursue careers in diverse areas such as geochemistry and geophysics or environmental law and environmental justice, scientific illustration, scientific writing, etc. Professionals in many disciplines, including science, law, medicine, and politics, hold undergraduate B.A. degrees in Geoscience.

B.A. MAJOR-GEOSCIENCE OPTION

40-42 S.H. (Approved minor or second major required)

CORE REQUIREMENTS - GEOS (19 S.H.)

- 120 Dynamic Earth (4)
- 130 Earth and Life through Time (4)
- 220 Minerals and Rocks (4)
- 240 Watershed Science (4)
- 280 Field and Analytical Methods I (2)
- 475 Geoscience Seminar (1)

Note: Majors in all options are urged to complete a geology summer field course prior to graduation. This can substitute for an upper-division elective.

REQUIRED COURSES - GEOS (10-11 S.H.)

Choose one from each of the three pairs of courses listed below (See ** below.):

- 330 Structural Geology (4) OR
GEOS 340 Sedimentology & Stratigraphy (4)
- 415 Advanced Geomorphology (4) OR
GEOS 420 Applied Hydrogeology (4)
- 399 Internship (2-3) OR
GEOS 400 Directed Research (2-3)

Note: Internship or research topic must integrate Geoscience and minor field (see advisor for details).

**Students may choose one of the courses in each of the above pairs of courses to fulfill option requirements, and may also choose the other course in any or all of the above pairs of courses to fulfill elective requirements below.

GEOSCIENCE ELECTIVES (11-13 S.H.)

Select from the "Electives Pool" list (Page 114), except for geoscience courses listed as requirements for the major. Elective choices must include at least one laboratory course (4 S.H.) numbered 300 or above. Choices may include one additional course from Geoscience offerings at the 100-level (but may not include GEOS 120 or GEOS 130). (See also ** above.)

B.S. MAJOR - EARTH SCIENCE (Teaching) (ESCT)

124-126 S.H. (128 S.H. required for graduation)

The program below meets Minnesota Board of Teaching (BOT) 5-12 Earth and Space Science licensure requirements in place at the time the catalog went to press. Students should be aware that the program described below may change significantly in the near future, as the BOT considers changes to the Science Licensure programs; therefore, students should work closely with their academic advisor to ensure that they will be able to graduate with a BOT-approved degree. Completion of the program outlined below will enable the student to apply for a 5-12 Science Licensure with an Earth Science Specialty.

In addition, work is underway to fully align the major program requirements with the requirements of the University Studies Program. Some courses included in the major program below may be approved

for University Studies credit in the future. The Geoscience Department is working in cooperation with other secondary licensure programs and the Education Department to ensure that teacher-licensure programs meet both BOT and University Studies requirements. See your academic advisor for more information.

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 Education Department section of this catalog (page 87), or refer to these documents: *Field Experience Handbook for the WSU Teacher Education Program* and the *Teacher Education Program Guide*. Students must gain admission to the Education Program before they enroll in Professional Education Sequence courses. See your academic advisor or the Department of Education Admissions Coordinator for more information.

UNIVERSITY STUDIES (USP) (19 S.H.)

BASIC SKILLS (7 S.H.)

- English 111 College Reading and Writing (4)
- CMST 191 Introduction to Public Speaking (3)
- Physical Education (Filled by HERS 204 below) (0)
- Math (0) filled by major requirements below

ARTS AND SCIENCES CORE (6 S.H.)

- Humanities (3) (3 S.H. filled by PHIL 240)
- Social Sciences (0) (3 S.H. filled by SPED 400 below; 3 S.H. filled by EDUC 305 below)
- Natural Science (0) (filled by major requirements below)
- Fine and Performing Arts (3)

UNITY AND DIVERSITY (6 S.H.)

- Critical Analysis (3 S.H.)
- Science and Social Policy (0) (3 S.H. filled by GEOS 325 below)
- Multicultural or Global Perspectives (0) (3 S.H. filled by EDUC 308 below)
- Democratic Institutions or Contemporary Citizenship (3 S.H.)

FLAG REQUIREMENTS (0 S.H.)

- Writing Flag (0) (6 S.H. filled by EDUC 449 and EDUC 459 below)
- Oral Flag (0) (3 S.H. filled by EDUC 465 below)
- Mathematics/Statistics or Critical Analysis Flag (0) (3 S.H. filled by EDUC 312)

EARTH SCIENCE REQUIREMENTS (80-82 S.H.)

Geoscience Courses - GEOS (34-36 S.H.)

- 105 Astronomy (4)
- 110 Oceanography (4)
- 115 Meteorology (4)
- 120 Dynamic Earth (4)
- 130 Earth and Life through Time (4)
- 220 Minerals and Rocks (4)
- ☞ 280 Field and Analytical Methods I (2)
- 325 Environmental Geoscience (3)
- ☞ 340 Sedimentology and Stratigraphy (4) OR GEOS 415 Advanced Geomorphology (4) (Math/Critical Analysis Flag)
- 400 Directed Research (2-3)

OTHER REQUIRED COURSES (46 S.H.)

Biology

- * BIOL 241 Basics of Life (4)
- * BIOL 242 Organismal Diversity (4)

Chemistry

- CHEM *212, *213 Principles of Chemistry I, II (8)

Physics

- PHYS *201, *202 General Physics I, II (8)
- PHYS 311 Science Teaching Methods (4)

Mathematics

- MATH 150 Modeling Using Precalculus and Statistics (3), MATH 155 Calculus Based Modeling (3) OR
- MATH 120 Precalculus (4) AND MATH 160 Calculus I (4)

Philosophy

- * PHIL 240 Philosophy of Science (3) (counts as USP Humanities)

Health, Exercise Science and Rehabilitative Sciences

- HERS 204 Personal and Community Health (3) (counts as USP Physical Development and Wellness)

Special Education

- * SPED 400 Education of Exceptional Children/Youth (3) (counts as USP Social Sciences)

Women's and Gender Studies

- WS 220 Power, Privilege, and Gender (3) (counts as USP Multicultural Perspectives)

* "Additional Requirements" course as defined in Item 3, page 19.

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: Secondary (3)
- EDUC 429 Secondary Reading and Teaching Strategies (4)
- EDUC 449 Middle Level Philosophy, Organization and Planning (3)
- EDUC 459 The Professional Educator (3)
- EDUC 465 Student Teaching (12)

Note: EDUC 305 and 312 must be taken together in the same semester; they will not be offered during the summer term.

OTHER REQUIREMENTS

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 (GEOS)

24-25 S.H.

REQUIRED COURSES - GEOS (9-10 S.H.)

- 120 Dynamic Earth with Laboratory (4) OR GEOS 121, Dynamic Earth (3)
- 130 Earth and Life through Time (4)
- 280 Field and Analytical Methods I (2)

GEOSCIENCE ELECTIVES (15 S.H.)

Choose electives from the Geoscience "Electives" pool. Electives must include at least two laboratory courses numbered 300 or above. Electives may include one course from the Geoscience Introductory Pool (courses numbered 100 - 199) other than those listed as required above.

ELECTIVES POOL - GEOS (for all geoscience majors):

- 240 Watershed Science (4)
- 320 Optical Mineralogy and Petrology (4)
- 325 Environmental Geoscience (3)
- 370 GIS and 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)
- 415 Advanced Geomorphology (4)
- 420 Applied Hydrogeology (4)
- 425 Global Climate Change (3)
- 430 Chemistry and Physics of the Earth (3)

GEOSCIENCE INTRODUCTORY POOL - GEOS

- 100 Minnesota Rocks and Waters (3)
- 102 Resources of the Earth (3)
- 103 Natural Disasters (3)
- 104 Catastrophes and Extinctions (3)
- 105 Astronomy with Laboratory (4)
- 106 Astronomy (3)
- 108 Geology of the Mississippi River (3)
- 110 Oceanography with Laboratory (4)
- 111 Oceanography (3)
- 115 Meteorology with Laboratory (4)
- 116 Meteorology
- 120 Dynamic Earth with Laboratory (4)
- 121 Dynamic Earth (3)
- 130 Earth and Life through Time (4)

COURSE DESCRIPTIONS

GEOSCIENCE (GEOS)

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 with sufficient demand.

102 - Resources of the Earth (3 S.H.)
An investigative exploration of significant global resources with emphasis on fossil fuels, non-fossil fuels, water, and other energy resources. Geologic processes governing each are explored. Prediction,

impacts, economic, and political scenarios are examined. Offered with sufficient 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.

104 - Catastrophes and Extinctions (3 S.H.)
Over 99% of the animal species that once inhabited the Earth are now extinct. Remarkably, most of these extinctions have been associated through time with significant geologic events that are considered by many to be catastrophic. In this course, students will explore the major extinctions that have taken place through geologic history. These include the extinction of numerous marine invertebrate species, the extinction of the dinosaurs 65 million years ago, the extinction of large mammals during the last ice age, and many others. Weekend (overnight) field trip required. Lecture only. Prerequisites: None. Offered with sufficient demand.

105 - Astronomy with Laboratory (4 S.H.)
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 required. Offered yearly, usually in the fall semester. Note: Students may enroll in either GEOS 105 or GEOS 106, but they cannot earn credit for both courses.

106 - Astronomy (3 S.H.)
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 only. Offered yearly, usually in the fall semester. Note: Students may enroll in either GEOS 105 or GEOS 106, but they cannot earn credit for both courses.

108 - Geology of the Mississippi River (3 S.H.)
Investigation of the geologic history, river processes, and resource management of large rivers, particularly focusing on the Mississippi River. Topics include an exploration of the relationship between the Mississippi River and its watershed, soils, groundwater, bedrock geology, and humans. Concepts emphasized will include the hydrologic cycle, plate tectonics, river morphology, river dynamics, resource management, and public policy issues. Lecture; no laboratory. Prerequisites: None. Offered alternate years.

110 - Oceanography with Laboratory (4 S.H.)
Introduction to oceans including the ocean floor, marine sediments, composition of sea water, ocean currents, waves and tides, marine biology, and oceanic resources. Lecture and laboratory required. Offered alternate years, usually in the spring semester. Note: Students may enroll in either GEOS 110 or GEOS 111, but they cannot earn credit for both courses.

111 - Oceanography (3 S.H.)
Introduction to oceans including the ocean floor, marine sediments, composition of sea water, ocean currents, waves and tides, marine biology, and oceanic resources. Lecture only. Offered alternate years, usually in the spring semester. Note: Students may enroll in either GEOS 110 or GEOS 111, but they cannot earn credit for both courses.

115 - Meteorology with Laboratory (4 S.H.)
Study of earth's dynamic weather system including atmospheric structure, composition, and processes; origin and development of storms and related phenomena. Lecture and laboratory required. Offered alternate years, usually in the spring semester. Note: Students may enroll in either GEOS 115 or GEOS 116, but they cannot earn credit for both courses.

116 - Meteorology (3 S.H.)
Study of earth's dynamic weather system including atmospheric structure, composition, and processes; origin and development of storms and related phenomena. Lecture only. Offered alternate years, usually in the spring semester. Note: Students may enroll in either GEOS 115 or GEOS 116, but they cannot earn credit for both courses.

120 - Dynamic Earth with Laboratory (4 S.H.)
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. Note: Students may enroll in either GEOS 120 or GEOS 121, but they cannot earn credit for both courses.

121 - Dynamic Earth (3 S.H.)
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 only. Note: Students may enroll in either GEOS 120 or GEOS 121, but they cannot earn credit for both courses.

130 - Earth and Life through Time (4 S.H.)

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. Focuses on the assembly and evolution of North America as a model for global processes. Lecture and laboratory. Weekend field trip required. Prerequisite: GEOS 120 or equivalent. Offered yearly in the spring semester.

220 - Minerals and Rocks (4 S.H.)

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 in the fall semester.

240 - Watershed Science (4 S.H.)

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. Field trips required. Offered yearly, usually in the fall semester.

280 - Field and Analytical Methods I (2 S.H.)

Basic geologic field techniques including sampling methods, rock identification, field descriptions, and use of Brunton compass. Measurement and description of stratigraphic sections. Prerequisite: ENG 111 and instructor's permission. Corequisite: GEOS 220. Field trips required. Offered yearly in the fall semester.

320 - Optical Mineralogy and Petrology (4 S.H.)

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. Field trips required. Offered alternate years in the spring semester.

325 - Environmental Geoscience (3 S.H.)

Study of the environmental implications of human interactions with natural geological systems. An emphasis is placed on understanding environmental science concepts and how scientific findings ultimately shape public policy and political decisions. Topics typically include climate change, water resources, alternative energy resources, soils and weathering, and coastal processes. Course is taught from an Earth systems perspective. Discussion-oriented lecture format. Lecture only. Prerequisite: Any University Studies Natural Science laboratory course or instructor's permission. Offered alternate years, usually in the spring semester.

330 - Structural Geology (4 S.H.)

Study of faulting, folding, mechanics of rock deformation and structural techniques. Principles of plate tectonics and mountain building. Lecture and laboratory. Prerequisite: GEOS 220. Field trips required. Offered yearly in the spring semester.

340 - Sedimentology and Stratigraphy (4 S.H.)

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. Prerequisites: GEOS 220 and ENG 111. Offered yearly in the fall semester.

370 - GIS and Imaging Techniques (3 S.H.)

Techniques of using aerial photographs, remote sensing, and GIS for geological applications. Prerequisites: CMST 191, GEOS 130, and instructor's permission. Offered alternate years in the spring semester.

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 with sufficient 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.)

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 with sufficient demand.

415 - Advanced Geomorphology (4 S.H.)

Study of the nature and evolution of land forms and materials at or near earth's surface. Analysis of land forms using topographic maps and aerial photographs. Soil-forming processes and soil classification. Lecture and laboratory. Prerequisite: GEOS 130. Offered alternate years in the fall semester. Field trips required.

420 - Applied Hydrogeology (4 S.H.)

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. Prerequisites: GEOS 240 and MATH 155 or MATH 160. Field trips required. Offered alternate years in the spring semester.

425 - Global Climate Change (3 S.H.)

Exploration of the Earth's most recent glacial/interglacial cycles: geological and faunal evidence, the sequence of historical events, potential causative factors, environmental responses and rates of change, and pertinence to contemporary global change. An emphasis will be placed on understanding the mechanisms of climate change in relation to geological processes. Prerequisite: GEOS 325 or the instructor's permission. Offered in alternate years, usually in the spring semester.

430 - Chemistry and Physics of the Earth (3 S.H.)

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. Prerequisites: CHEM 212, PHYS 201, GEOS 330 and GEOS 340. Offered with sufficient demand.

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 in the spring semester.

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. Prerequisites: GEOS 280, GEOS 340 and instructor's permission. Field trips required. Offered with sufficient demand.

SCIENCE EDUCATION (SCIE)

201 - Investigative Science I: Earth-The Water Planet (4 S.H.)

A field-based integrated experience designed specifically for elementary education majors. Inquiry-based exploration of biological, chemical, geological, and physical characteristics of water in the community. Focus on development of pre-service student pedagogical content knowledge and connections to state and national science education standards as relates to teaching science in elementary schools. Field trips required. Enrollment limited to elementary education majors. Lecture and laboratory combined. Prerequisites: None. Offered yearly.

401 - Investigative Science III: Scientific Investigation of your Environment (4 S.H.)

A field-based, integrated experience designed specifically for elementary education majors. Inquiry-based exploration of biological, chemical, geological, and physical characteristics of environmental problems facing the local community. Focus on development of pre-service student pedagogical content knowledge and connections to state and national science education standards as relates to teaching science in elementary schools. Field trips required. Enrollment limited to elementary education majors. Lecture and laboratory combined. Prerequisites: SCIE 201, EDUC 335, and admission to teacher education program. Offered yearly.

* "Additional Requirements" course as defined in Item 3, page 19.

GLOBAL STUDIES

Minné Hall, Room 122 (507-457-5415; fax 507-457-2621)
www.winona.edu/globalstudies
Yogesh Grover (Director)

FACULTY

Yogesh Grover, Professor; B.A., M.A., University of Delhi (India); Ph.D., University of Missouri-Columbia; 1988 -

GLOBAL STUDIES: DEFINITION AND RATIONALE

The Global Studies program takes a multidisciplinary approach to understanding the growing interconnectedness and interdependence among people and countries of the world. Global Studies explores the causes and consequences of this multi-faceted phenomenon and examines the various responses to it. Global Studies examines change at the global and local level. In this program, humanities, social and natural science courses provide a foundation for understanding global change, the varied human reactions to it, and the possibility that this change can have a positive impact on humanity as a whole. Thus, Global Studies encompasses a field of study that cannot be adequately captured by one discipline or field of knowledge. Students majoring or minoring in Global Studies gain a sound understanding of the forces shaping our world so that they are prepared to participate effectively in the world they encounter after graduation, whether they decide to work in the United States or abroad.

WSU offers both a B.A. Major and a B.A. Minor in Global Studies. Because Global Studies contains many courses that are drawn from different disciplines, students will find that it is a major that can be taken either independently, or combined with another major or minor. Several University Studies Program (general education) courses also fulfill the requirements of this major, thus, enabling students to complement it with another major or minor of their interest. Alternatively, students with a strong preference for other majors will find it useful to have Global Studies as a minor that can provide a global context for the area of knowledge they have acquired. (For a list of University Studies courses, see page 20; the most up-to-date list of University Studies courses is available at www.winona.edu/registrar/university_studies_requirements.htm.)

PROGRAM REQUIREMENTS

Students intending to major in Global Studies must complete all the university graduation requirements (page 22). Courses fulfilling the major requirements must be taken for credit only. At least 21 of the 58 major semester hours must be met with 300-400 level courses.

PASS/NO CREDIT (P/NC) COURSES

Except for internships and practica, students must take all courses in their major, minor, options, concentrations and licensures on a grade-only basis. The P/NC option is available to non-majors and non-minors unless otherwise noted. Courses offered on a pass/no credit-only or grade-only basis are so designated in the course descriptions.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Global Studies program offers the following flag course in the University Studies Program:

FLAG

Oral

GS 360 Contemporary Asian Issues (3)

Flag courses that can be used to satisfy Global Studies major/minor requirements are identified in the lists of required courses and electives in this section.

B.A. MAJOR - GLOBAL STUDIES

58 S.H. (No Minor Required)

This major has two parts:

- Part I (Global Perspectives) provides students a general framework that organizes the different aspects of globalization.
- Part II (Regional Perspectives) offers students an opportunity to gain in-depth knowledge about a region of the world, North America, or Asia.

The expectation is that students will examine the impact of global changes on the region they choose to study, and conversely, the impact of regions in influencing the global forces. The emphasis upon global-regional interaction is the distinguishing feature of this program.

PART I: GLOBAL PERSPECTIVES (18 S.H.)

REQUIRED COURSES (6 S.H.)

GS 200 Introduction to Global Studies (3)

GS 400 Seminar in Global Studies (3)

MAJOR ELECTIVES (12 S.H.)

Electives are organized in the following four categories: Global Environment, Global Governance, Global Society and Culture, and Global Economy. Students may not count more than 9 credits from any one of the categories as credit toward the major.

Global Environment

Courses in this category consider the wholeness of the physical environment of the globe, the potential of its resources to meet human needs, the effects of human activity on the global environment, and the ways in which its conservation can occur.

Biology

BIOL 104 Environment, Society, and Conservation (3)

Chemistry

CHEM 320 Environmental Chemistry (4) (prerequisite: one year of general chemistry or instructor's permission)

Geography

GEOG 370 The Geography of Tourism - Advanced Study (3)

Geoscience

GEOS 102 Resources of the Earth (3)

GEOS 103 Natural Disasters (3)

GEOS 325 Environmental Geoscience (3) (prerequisite: GEOS 120, Dynamic Earth, or instructor's permission)

 GEOS 370 GIS and Imaging Techniques (3)

Physical Education and Recreation

PER 302 Adventure Travel and Tourism Development (3)

Global Governance


Courses in this category examine the inadequacy of current international organizations to cope with contemporary problems brought about by globalization, and examine the efforts of various groups and countries to develop rules, norms, and institutions that can respond to these problems in ways that are consistent with universal standards of human dignity.


* POLS 130 Introduction to International Relations (3)

POLS 205 United Nations in World Affairs (3)

POLS 225 Ethnic Conflict and Nationalism (3)

POLS 346 International Law (3) (prerequisite: *POLS 130)

 POLS 347 International Organization (3) (prerequisite: *POLS 130)

 POLS 475 Democratization & Its Challenges (3) (prerequisite: *POLS 135)

Global Society and Culture

Courses in this category explore the emergence of common norms, values and behavior around the world as a result of globalization and spread of modern technology. They also examine expression of thought and culture in different parts of the world and the dynamic of conflict and cooperation between local and global cultures.

Communication Studies

CMST 381 Cross Cultural and International Communication (3) (prerequisite: CMST 281)

Computer Science

CS 210 Computers in Global Society (3)

Education

EDUC 450 Comparative Education (3) (no prerequisite)

English

- ENG 221 Topics in World Literature (only sections with following topics: World Mythology, Families Across Cultures, Beyond Europe & America, Postcolonial Literature)
- ENG 225 Topics in Literature: Meeting of East and West in Literature (1-2)
- ENG 327 Genres in Literature: Reading Sacred Texts (1-2)

Mass Communication

- MCOM 356 Media and Society International (3)
- ☞ MCOM 450 International Broadcasting (3) (prerequisite: MCOM 100, Mass Media & Society)

Music

- MUS 114 World Music (3)

Physical Education and Recreation

- PER 265 Leisure in Different Cultures (3)

Philosophy

- PHIL 330 Biomedical Ethics (3)

Social Work

- SOCW 445 Globalization of Social Welfare (3) (prerequisite: SOCW 340)

Sociology

- SOC 340 Social-Cultural Anthropology (3) (prerequisite: *SOC 150, Introduction to Sociology)
- SOC 421 Urban Sociology (3) (prerequisite: *SOC 150)

Global Economy

Courses in this category deal with the emergence of the global market economy, the way in which it operates, and how governments and non-governmental groups react to it.

Accounting

- ACCT 424 International Taxation (3) (prerequisite: *ECON 202)

Business Administration

- BUSA 411 International Business Law (3) (prerequisite: BUSA 291 or 301)

Economics and Finance

- ECON 404 International Economics (3) (prerequisite: ECON *201 and *202)
- ECON 415 International Economic Development (3) (prerequisite: ECON *201 and *202)
- FIN 440 International Finance (3) (prerequisite: FIN 360, Corporate Finance)

Geography

- GEOG 211 Economic Geography (3)

Management

- MGMT 455 International Business (3) (prerequisite: MGMT 315 or instructor's permission)
- MGMT 475 Seminar in International Management (3) (prerequisite: MGMT 315 or instructor's permission)
- MGMT 477 International Human Resources Management (3) (prerequisite: MGMT 315 or 325, and 317, or instructor's permission)

Political Science

- POLS 342 International Political Economy (3) (prerequisite: *POLS 130)

GENERAL ELECTIVES

- GS 205 Cultural Encounters (3 S.H.)
- GS 350 Cross-Cultural Field Experience (1-9 S.H.)
- GS 460 Independent Study (1-9 S.H.)

PART II: REGIONAL PERSPECTIVES

Students must choose either North American Studies or Asian Studies (40 S.H.)

NORTH AMERICAN STUDIES - 40 S.H. (GSNA)**REQUIRED COURSE (3 S.H.)**

- GS 210 Introduction to North America (3)

Foreign Language and Cultural Immersion (16 S.H.)

Students must demonstrate intermediate proficiency (foreign language course 202 or equivalent) in either Spanish or French. Students choosing to test out of lower-division language courses must complete remaining credits in one or more of the following ways:

- Spanish, French, or English as Second Language (ESL)
 - Cultural Encounters (GS 205)
 - Approved programs (Study Abroad, Internships, etc.)
 - Regional Perspectives Electives beyond the requirements
 - Cross Cultural Field Experience (GS 350)
- Foreign language requirements can be waived for students if English

is their second language, provided they take an equivalent number of credits from the Regional Perspectives Electives with the approval of program director.

Regional Perspectives Electives (21 S.H.)

Selective courses in the Regional Perspectives part are classified in the three categories: Societies in Transition; Power, Wealth, and the Environment; and Cultural Identity and Expressions. Students must take at least three courses from one of the categories and at least one course from each of the remaining categories. Courses listed in more than one category can satisfy the requirements of only one category.

Societies in Transition

Courses in this category relate to the geography of the region, the history of its peoples, and its evolving societies in various aspects.

Communication Studies

- CMST 281 Intercultural Communication (3)

Geography

- GEOG 270 Introduction to the Geography of Tourism (3)
- GEOG 320 Geography of the United States (3)
- GEOG 332 Geography of Canada (3)

History

- * HIST 150 United States History to 1865 (3)
- * HIST 151 United States History since 1865 (3)
- HIST 233 History of Mexico (3)
- ☞ HIST 315 Women in US History (4) (prerequisite: 150 or 151 and ENG 111)
- HIST 336 History of North American Sports (3)
- HIST 365 American Legal History (3) (prerequisite: HIST 150 & 151 or instructor's permission)
- HIST 485 Contemporary America 1945-Present (3) (prerequisite: HIST 151)
- HIST 486 American Intellectual and Cultural History (3)
- HIST 488 American Constitutional History (3)

Mass Communication

- MCOM 100 Mass Media and Society (3)

Music

- * MUS 110 History of American Jazz (3)
- * MUS 122 History of Rock Music (3)

Philosophy

- PHIL 335 Constitutional Philosophy (3)

Residential College

- RESC 233 Interdisciplinary Approach to Latin American and Caribbean

Immigrants in U.S. Society (3)

- RESC 235 Interdisciplinary Approach to Women and Social Justice Issues in Latin America (3) (North American focus)

Sociology

- SOC 440 Sociology of Dying and Death (3) (prerequisite: *SOC 150)
- SOC 450 Sociology of Aging (3) (prerequisite: *SOC 150)

Power, Wealth, and the Environment

Courses in this category pertain to the general political and economic institutions, policies and processes in North America. They also relate to the impact of economic development on the physical environment, and the policies adopted or suggested to deal with this phenomenon.

Economics

- ☞ ECON 304 Money and Banking (3) (prerequisites: ECON *201 and *202)
- ECON 315 Environmental and National Resources Economics (3) (prerequisite: *ECON 201)
- ECON 320 Business-Government Relations (3) (prerequisite: *ECON 201)
- ECON 435 The North American Economies (3) (prerequisites: ECON *201 and *202)

Geoscience

- * GEOS 130 Earth and Life through Time (4) (North American Focus)
- GEOS 385 Geology of North America (3) (prerequisite: GEOS 220)

Political Science

- * POLS 120 Introduction to American Politics (3)
- POLS 315 American Political Thought (3) (prerequisite: POLS 120 or instructor's permission)
- POLS 320 Constitutional Law (3) (prerequisite: POLS 120)
- POLS 321 The American Presidency (3) (prerequisite: POLS 120)
- POLS 340 Environmental Policy (3)
- POLS 360 The American Congress (3) (prerequisite: POLS 120)
- POLS 422 American Foreign Policy (3) (prerequisite: POLS 130)
- ☞ POLS 460 North American Relations (3) (prerequisite: POLS 130)

* "Additional Requirements" course as defined in Item 3, page 19.

Cultural Identity and Expression

Courses in this category pertain to the heterogeneity of North American society, the richness of its social and cultural group life including the pursuit by these groups to express themselves in different ways.

Art

- * ART 224 American Art (3)
- ART 252 Survey of Women Artists (3)

Communication Studies

- CMST289 Gender and Communication (3)

English

- ENG 220 Multicultural American Literatures (3)

History

- HIST 220 Introduction to African American History (3)
- HIST 235 History of the American Indian (3) (prerequisite: ENG 111)
- 🏠 HIST 315 Women in US History (4) (prerequisite: HIST *150 or *151 and ENG 111)
- HIST 320 North American Indian Civilization (3) (prerequisite: HIST 235)

Music

- MUS 440 American Art Music (3) (prerequisite: MUS 109)

Political Science

- POLS 330 Race and American Politics (3) (prerequisite: *POLS 120)

Sociology

- SOC 412 Sexuality in American Society (3) (prerequisite: *SOC 150)
- SOC 423 Race Relations and Minority Groups (3) (prerequisite: *SOC 150)

ASIAN STUDIES - 40 S.H. (GSAS)

REQUIRED COURSE (3 S.H.)

- GS 250 Introduction to Asia (3)

Foreign Language and Cultural Immersion (16 S.H.)

Chinese or Japanese

Chinese

- CHIN 101 Beginning Chinese I (4)
- CHIN 102 Beginning Chinese II (4)
- CHIN 201 Advanced Beginning Chinese I (4)
- CHIN 202 Advanced Beginning Chinese II (4)

Japanese

- JPN 101 Beginning Japanese I (4)
- JPN 102 Beginning Japanese II (4)
- JPN 201 Advanced Beginning Japanese I (4)
- JPN 202 Advanced Beginning Japanese II (4)

A minimum of 12 credits in Chinese or Japanese required. The remaining 4 credits can be fulfilled by taking additional courses in these languages or by taking equivalent number of credits in one or more of the following ways (see Note below):

- Cultural Encounters (GS 205)
- Cross Cultural Field Experience (GS 350)
- Approved programs (Study Abroad, Internships, etc.)
- Regional Perspectives Electives beyond the requirements

Students choosing to test out of lower-division language courses must complete remaining credits in one or more of the ways listed above. Foreign Language requirements can be waived for students if an Asian language is their first language, provided they take an equivalent number of credits as listed above, and obtain the permission of the program director.

Note: Students who received a high school diploma from a Chinese- or Japanese-speaking country cannot register from CHIN/JPN 101 or 102.

Regional Perspectives Electives (21 S.H.)

Elective courses in the Regional Perspectives part are classified in the three categories: Societies in Transition; Power, Wealth, and the Environment; and Cultural Identity and Expressions. Students must take at least three courses from one of the categories and at least one course from each of the remaining categories. Courses listed in more than one category can satisfy the requirements of only one category.

Some courses for this requirement will be available at Akita International University (AIU) in Japan and the Hebei University of Technology in China.

Societies in Transition

Courses in this category relate to the geography of the region, the history of its peoples, and its evolving societies in various aspects.

English

- ENG 225 Topics in Literature (1-2)

Geography

- GEOG 223 Geography of the Orient (3)

Global Studies

- GS 300 Contemporary China (3)
- 🏠 GS 360 Contemporary Asian Issues (3)

History

- HIST 123 East Asian Civilization (3)
- HIST 341 Modern Japan (3) (prerequisites: HIST 123, ENG 111)
- HIST 343 Modern China (3)
- HIST 447 America in the Vietnam War Era (3) (prerequisite: *HIST 151 or instructor's permission)

Power, Wealth, and the Environment

Courses in this category pertain to the general political and economic institutions, policies and processes in Asia. They also relate to the impact of economic development on the physical environment, and the policies adopted or suggested to deal with this phenomenon.

Economics

- ECON 430 Asian Economies in Transition (3) (prerequisites: ECON *201 and *202)

Global Studies

- GS 355 Asian International Relations (3)

Political Science

- POLS 337 Asian Political Systems (3) (prerequisite: POLS 135)

Cultural Identity and Expression

Courses in this category pertain to the heterogeneity of Asian societies, the richness of their social and cultural group life including the pursuit by these groups to express themselves in different ways

English

- ENG 221 Topics in World Literature [Women in Chinese Literature] (3)
- ENG 327 Genres in Literature [Modern Japanese Novel] (1-2)

Global Studies

- GS 255 Peoples and Cultures of South and Southeast Asia (3)

Music

- MUS 115 Music of the East and Southeast Asia (3)

Theatre and Dance

- THAD 312 Japanese Classical Theatre (3)

B.A. MINOR - GLOBAL STUDIES (GLST)

24 Credits (Minimum of 12 credits at 300-400 level)

REQUIRED COURSES (6 S.H.)

- GS 200 Introduction to Global Studies (3)
- GS 400 Seminar in Global Studies (3)

MINOR ELECTIVES (18 S.H.)

The electives for the minor are organized in the following four categories: Global Environment, Global Governance, Global Society & Culture, and Global Economy. Students must take at least 3 credits from each of the categories, but may not count more than 9 credits from any one of the categories as credit toward the minor. With the approval of the program director, students may use up to 9 credits earned by taking courses from the General Electives listed below to fulfill minor requirements

Global Environment

Courses in this category consider the wholeness of the physical environment of the globe, the potential of its resources to meet human needs, the effects of human activity on the global environment, and the ways in which its conservation can occur.

Biology

- BIOL 104 Environment, Society, and Conservation (3)

Chemistry

- CHEM320 Environmental Chemistry (4) (prerequisite: one year of general chemistry or instructor's permission)

Geography

- GEOG 370 The Geography of Tourism- Advanced Study (3)

Geoscience

- GEOS 102 Resources of the Earth (3)
- GEOS 103 Natural Disasters (3)
- GEOS 325 Environmental Geoscience (3) (prerequisite: GEOS 120, Dynamic Earth, or instructor's permission)
- 🏠 GEOS 370 GIS and Imaging Techniques (3)

Physical Education and Recreation

PER 302 Adventure Travel and Tourism Development (3)

Global Governance

Courses in this category examine the inadequacy of current international organizations to cope with contemporary problems brought about by globalization, and examine the efforts of various groups and countries to develop rules, norms and institutions that can respond to these problems in ways that are consistent with universal standards of human dignity.

- * POLS 130 Introduction to International Relations (3)
- POLS 205 United Nations in World Affairs (3)
- POLS 225 Ethnic Conflict and Nationalism (3)
- POLS 343 Human Rights in Theory and Practice (3)
- POLS 346 International Law (3) (prerequisite: *POLS 130)
- ☞ POLS 347 International Organization (3) (prerequisite: *POLS 130)
- ☞ POLS 475 Democratization and Its Challenges (3) (prerequisite: *POLS 135)

Global Society & Culture

Courses in this category explore the emergence of common norms, values and behavior around the world as a result of globalization and spread of modern technology. They also examine expression of thought and culture in different parts of the world and the dynamic of conflict and cooperation between local and global cultures.

Communication Studies

CMST 381 Cross Cultural and International Communication (3) (prerequisite: CMST 281)

Computer Science

CS 210 Computers in Global Society (3)

Education

EDUC 450 Comparative Education (3) (no prerequisite)

English

- ENG 221 Topics in World Literature [only sections with following topics: World Mythology, Families Across Cultures, Beyond Europe & America, Postcolonial Literature]
- ENG 225 Topics in Literature [Meeting of East and West in Literature] (1-2)
- ENG 327 Genres in Literature [Reading Sacred Texts] (1-2)

Mass Communication

- MCOM 356 Media and Society International (3)
- ☞ MCOM 450 International Broadcasting (3) (prerequisite: MCOM 100, Mass Media & Society)

Music

MUS 114 World Music (3)

Physical Education and Recreation

PER 265 Leisure in Different Cultures (3)

Philosophy

PHIL 330 Biomedical Ethics (3)

Social Work

SOCW 445 Globalization of Social Welfare (3) (prerequisite: SOCW 340)

Sociology

- SOC 340 Social-Cultural Anthropology (3) (prerequisite: *SOC 150, Intro to Sociology)
- SOC 421 Urban Sociology (3) (prerequisite: *SOC 150)

Global Economy

Courses in this category deal with the emergence of the global market economy, the way in which it operates, and how governments and non-governmental groups react to it.

Accounting

ACCT 424 International Taxation (3) (prerequisite: *ECON 202)

Business Administration

BUSA 411 International Business Law (3) (prerequisite: BUSA 291 or 301)

Economics and Finance

- ECON 404 International Economics (3) (prerequisite: ECON *201 and *202)
- ECON 415 International Economic Development (3) (prerequisite: ECON *201 and *202)
- FIN 440 International Finance (3) (prerequisite: FIN 360, Corporate Finance)

Geography

GEOG 211 Economic Geography (3)

Management

- MGMT 455 International Business (3) (prerequisite: MGMT 315 or instructor's permission)
- MGMT 475 Seminar in International Management (3) (prerequisite: MGMT 315 or instructor's permission)

MGMT 477 International Human Resources Management (3) (prerequisite: MGMT 315 or 325, and 317, or instructor's permission)

Political Science

POLS 342 International Political Economy (3) (prerequisite: *POLS 130)

GENERAL ELECTIVES

- GS 205 Cultural Encounters (3 S.H.)
- GS 350 Cross-Cultural Field Experience (1-9 S.H.)
- GS 460 Independent Study (1-9 S.H.)

COURSE DESCRIPTIONS**GLOBAL STUDIES****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 each semester.

205 - Cultural Encounters (3 S.H.)

This course is conducted as a learning community. It seeks to bring together linguistically, ethnically, and culturally diverse students in an effort to achieve academic and social cross-fertilization of their backgrounds and academic concentrations and, thereby, promote cultural understanding and enrichment. Offered every other year.

210 - Introduction to North America (3 S.H.)

This course is an introduction to the physical, historical, social, political, literary, and cultural aspects of the three primary North American countries of Canada, the United States and Mexico with emphasis on the interrelationships among them and the human experience throughout them, especially that of peoples who have been marginalized in the past.

250 - Introduction to Asia (3 S.H.)

This course provides an interdisciplinary overview of the areas that make up the Global Studies Asian Regional Perspective: East, Southeast, and South Asia. An introduction to this region, its societies, political economies, geography, religions, arts, and history will be provided. Offered yearly.

255 - Peoples and Cultures of South and Southeast Asia (3 S.H.)

This course focuses on the particular peoples and cultures of South and Southeast Asia—two of the most populous regions of the world—the issues that their cultural diversity raise and their contribution to understanding of similar diversity issues globally. Offered once in two years.

300 - Contemporary China (3 S.H.)

This course provides an overview of the changes occurring in China. Building upon a description of its culture, history and people; the course will enable students to understand contemporary China by emphasizing the changes affecting its economy, educational system, environment, evolving value system, and international relations.

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 University Studies credit. Prerequisite: Permission of the instructor and the GSP Director.

355 - Asian International Relations (3 S.H.)

This course provides an introduction to international relations in Asia, including East, Southeast, and South Asia. The course will focus both upon Inter-Asian relations well as the role of Asia in shaping international and global affairs. Offered once in two years.

360 - Contemporary Asian Issues (3 S.H.)

This course provides an interdisciplinary analysis of current issues in Asia including globalization, regional cooperation, immigration, development, the environment, conflict, and human rights. Offered every other year.

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. Prerequisite: GS 200. Offered yearly.

460 - Independent Study (1-9 S.H.)

Directed independent work on specific topics of interest to the student. The course topics, 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.

* "Additional Requirements" course as defined in Item 3, page 19.

CHINESE LANGUAGE (CHIN)

101 - Beginning Chinese I (4 S.H.)

Beginning Chinese 101 is designed to acquaint students with grammatical structures and vocabulary appropriate for beginning learners. Instruction focuses on development of all four skills (speaking, listening, reading, and writing) and cultural knowledge.

102 - Beginning Chinese II (4 S.H.)

Continuation of CHIN 101. CHIN 102 is designed to acquaint students with grammatical structures and vocabulary appropriate for beginning learners. Instruction focuses on development of all four skills (speaking, listening, reading, and writing) and cultural knowledge. Prerequisite: CHIN 101 or equivalent.

201 - Advanced Beginning Chinese I (4 S.H.)

CHIN 201 introduces students to more advanced beginning Mandarin pronunciation, grammar, and orthography (in both Pinyin and characters). Instruction focuses on development of all four skills (speaking, listening, reading, and writing) and cultural knowledge.

202 - Advanced Beginning Chinese II (4 S.H.)

CHIN 202 continues to introduce students to more advanced beginning Mandarin pronunciation, grammar, and orthography (in both Pinyin and characters). Instruction focuses on development of all four skills (speaking, listening, reading, and writing) and cultural knowledge.

JAPANESE LANGUAGE (JPN)

101 - Beginning Japanese I (4 S.H.)

JPN 101 is designed to acquaint students with grammatical structures and vocabulary appropriate for beginning learners. Instruction focuses on development of all four skills (speaking, listening, reading, and writing) and cultural knowledge.

102 - Beginning Japanese II (4 S.H.)

Continuation of JPN 101. JPN 102 is designed to acquaint students with grammatical structures and vocabulary appropriate for beginning learners. Instruction focuses on development of all four skills (speaking, listening, reading, and writing) and cultural knowledge. Prerequisite: JPN 101 or equivalent.

201 - Advanced Beginning Japanese I (4 S.H.)

JPN 201 is designed as a continuation of JPN 102 to acquaint students with grammatical structures and vocabulary appropriate for advanced beginning learners. Instruction focuses on development of all four skills (speaking, listening, reading, and writing) and cultural knowledge.

202 - Advanced Beginning Japanese II (4 S.H.)

JPN 202 is designed as a continuation of JPN 201 to acquaint students with grammatical structures and vocabulary appropriate for advanced beginning learners. Instruction focuses on development of all four skills (speaking, listening, reading, and writing) and cultural knowledge.

HEALTH, EXERCISE AND REHABILITATIVE SCIENCES

Memorial Hall, Room 122 (507-457-2600)

www.winona.edu/hers/

Shellie Nelson (Chairperson)

FACULTY

Dawn Anderson, Professor; B.A., University of Minnesota-Morris; M.S., Iowa State University; Ph.D., Ball State University, Muncie (IN); 1992 -

Phillip Appicelli, Associate Professor; B.A., College of St. Scholastica; M.A., Ph.D., Kent State University; 1998 -

Gail Grimm, Professor; B.S., University of Wisconsin-Platteville; M.S., University of Wisconsin-Madison; Ph.D., University of Arkansas-Fayetteville; 1989 -

Gary Kastello, Associate Professor; B.S., University of Wisconsin-La Crosse; M.A., Ball State University; Ph.D., University of Wisconsin-Milwaukee; 1997 -

Sang-Min Kim, Assistant Professor; B.A., M.A., Ed.D., University of Northern Iowa; 2005 -

Connie Mettille, Assistant Professor; B.S., Winona State University; M.S., University of Wyoming; 2001 -

Shellie Nelson, Professor; B.S., Winona State University; M.S., University of Wisconsin-La Crosse; Ed.D., Saint Mary's University of Minnesota; 1988 -

Kyle Pooch, Assistant Professor; Baseball Coach; B.S., M.S., Winona State University; 1995 -

Peter Sternberg, Assistant Professor; B.A., University of Kent at Canterbury (UK); RGN, London Hospital, UK; Post-Graduate Diploma Health Ed., University of London; Ph.D., Leeds Metropolitan University, UK; 2002 -

Brian Zeller, Associate Professor; B.S., University of Wisconsin-La Crosse; M.S., Indiana State University; Ph.D., University of Kentucky; 2000 -

PURPOSE

The Department of Health, Exercise and Rehabilitative Sciences is committed to preparing competent, entry-level exercise physiologists, health educators, athletic trainers, and students well-prepared for graduate study-professionals who can serve the needs of Minnesota and the global community. In order to fill this fundamental mission, the faculty:

- Provide instruction in health promotion, exercise science, and clinical sciences.
- 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. The department 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.

The Department of Health, Exercise and Rehabilitative Sciences (HERS) offers programs leading to the following degrees:

- B.S. Major - Health Promotion
 - Community Health Option
 - School Health Option
- B.S. Major - Exercise and Rehabilitative Science
 - Athletic Training Option
 - Cardiopulmonary Rehabilitation Option
 - Exercise Science Option
 - Movement Science Option

PRE-PROFESSIONAL SEQUENCES

Pre-professional programs are preparatory for graduate degrees at another college or university. Students interested in pursuing graduate degrees in physical therapy, occupational therapy, physician's assistant, or chiropractic medicine typically choose the Exercise and Rehabilitative Science: Athletic Training option or the Exercise and Rehabilitative Science: Movement Science option. The Movement Science option also prepares students for entry into graduate schools in a movement science field such as biomechanics, kinesiology, exercise physiology, or motor control.

The Department of Health, Exercise and Rehabilitative Sciences (HERS) offers pre-physical therapy advising. Dr. Gary Kastello is responsible for advising students interested in these pre-professional programs or graduate study in a movement science field. Students may contact Dr. Kastello at 507-457-5219 or gkastello@winona.edu.

Students majoring in athletic training and interested in pursuing graduate study through completion of pre-professional course sequences should contact Dr. Shellie Nelson at 507-457-5214, snelson@winona.edu; or Dr. Brian Zeller at 507-457-5575, bzeller@winona.edu. See page 179 for more information about the pre-professional sequences.

SCHOLARSHIPS

A number of scholarships are available for majors in the Department of Health, Exercise and Rehabilitative Sciences. Students should inquire about scholarships early in the academic year. A complete listing explaining the criteria for each scholarship is available in the HERS Department office.

INSURANCE

In academic courses, practica, and internships, HERS majors will be exposed to a wide array of school, clinical, and community experiences that enhance their education. Students participating in these experiences will be assessed a nominal fee each academic year for professional liability insurance. Yearly coverage is secured by an insurance provider determined by Minnesota Office of Risk Management in cooperation with Minnesota State Colleges and Universities annually on an incident/occurrence and aggregate rate basis.

In addition, student teachers may purchase liability insurance directly from the student chapter of the Education Minnesota Student Program (EMSP). Such policies are available to other majors through their professional organizations. Students should contact their advisor for more information.

PASS/NO CREDIT (P/NC) COURSES

Except for internships, students must take all courses in the major, minor, or options on a grade-only basis. The P/NC option is available to non-majors unless otherwise noted. Courses offered on a pass/no credit only or grade only basis are so designated in the course descriptions.

INTERNSHIPS AND PRACTICA

The department utilizes variable credits for practica (1-4 credit hours) and internships (4-10 credit hours). Each HERS program option has minimal credit hour requirements for each internship and/or practicum.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Department of Health, Exercise and Rehabilitative Sciences offers the following flag courses in the University Studies Program:

FLAG

Oral

HERS 328 Behavioral Interventions (3)
HERS 380 Laboratory Methods in Exercise Science (3)

Math/Critical Analysis

HERS 403 Epidemiology (3)

Writing

HERS 340 Physiology of Exercise (4)
HERS 350 Program Planning in Health Promotion (3)
HERS 430 Public Health (4)
HERS 445 Medical Aspects of Exercise (3)

Flag courses that can be used to satisfy HERS major/minor requirements are identified in the lists of required courses and electives in this section.

B.S. MAJOR - HEALTH PROMOTION

A student majoring in health promotion may choose from two options: School Health or Community Health. Each option leads to a Bachelor of Science degree and can be completed in four years, if the student begins the program during the freshman year. Students completing these degrees will be able to meet the Competencies of Entry-Level Health Educators and be prepared to pass the exam for Certified Health Education Specialist (CHES) certification.

Upon completion of the Health Promotion-School Health option, the student will have the skills and experience to obtain a Minnesota teaching licensure. Students are required to pass the Minnesota PRAXIS test for teaching licensure. Students who complete this degree and pass the PRAXIS test are qualified to teach in the Minnesota public school system grades 5-12.

The Health Promotion - Community Health option gives students a thorough grounding in the theory and skills involved in the promotion of community health and public health. The degree is designed to provide students with the experience and background they need to be eligible for entry-level jobs as health educators and health promoters in governmental agencies and non-governmental organizations including hospitals, businesses and other health-related organizations such as, the American Red Cross, American Cancer Society, American Heart Association, and the American Diabetic Society. The degree may also be used as a foundation for post-graduate study and is particularly useful for Masters Degree programs in public health, health promotion, or health education.

The HERS Department encourages its health promotion majors to become members of its academic clubs: Health Organization for Promotion and Education (HOPE) and Health Wellness Association (HWA).

B.S. MAJOR - HEALTH PROMOTION - COMMUNITY HEALTH OPTION (HPCH)





56 S.H. (Minor Recommended)

Students majoring in health promotion - community health must complete all requirements of the HERS Department and all the requirements for graduation specified in the academic policies section of this catalog (page 22). It is recommended that all students completing this degree also complete a minor in a health-related field or double major in an area that will complement the health promotion degree. Suggested minors include biology, business administration, chemistry,

communication studies, computer science, gerontology, global studies, intercultural communications, management, management information systems, marketing, mass communication, operational management, philosophy, physics, political science, psychology, sociology, Spanish, training and development, or women's and gender studies. Students must have a 2.50 major GPA to intern and graduate with this degree.

REQUIRED COURSES 56 S.H.

Health, Exercise and Rehabilitative Sciences - HERS (45 S.H.)

204 Personal & Community Health (3)
288 Health Perspectives (3)
311 Comprehensive School Health Program (3)
312 Community Health (3)
315 Health Promotion Skills (3)
326 Educational Topics/Issues (2)
 328 Behavioral Interventions (3)
 350 Programming Planning in Health Promotion (3)
395 Practicum in Health Promotion (3)
 403 Epidemiology (3)
415 Grant Writing (2)
 430 Public Health (3)
433 Senior Health Seminar (1)
496 Health Education Internship (10)

Biology - BIOL (8 S.H.)

* 211 Anatomy and Physiology I (4)
* 212 Anatomy and Physiology II (4)

Statistics - STAT (3 S.H.)

110 Fundamentals of Statistics (3)

B.S. MAJOR - HEALTH PROMOTION: SCHOOL HEALTH OPTION (HPST)

84 S.H.

Students majoring in health promotion - school health must complete all requirements of the HERS Department, the Education (EDUC) Department, and all the requirements for graduation specified in the academic policies section of this catalog (page 22). Teaching majors must successfully complete all the courses in the Professional Education Sequence in addition to the school health content area. For admission into the Professional Education Sequence, students majoring in health promotion-school health must have both a 2.75 overall GPA and a 2.50 major GPA. For more information about these requirements, refer to these documents: *Field Experience Handbook for the WSU*

* "Additional Requirements" course as defined in Item 3, page 19.

Teacher Education Program and the Teacher Education Program Guide, which can be obtained from the Education Department.

REQUIRED COURSES (43 S.H.)

Health, Exercise and Rehabilitative Sciences - HERS (35 S.H.)

- 204 Personal & Community Health (3)
- 288 Health Perspectives (3)
- 311 Comprehensive School Health Program (3)
- 312 Community Health (3)
- 320 Health Education in the Elementary School (3)
- 321 Health Education in the Middle & Secondary Schools (3)
- 326 Educational Topics/Issues (2)
- ✎ 328 Behavioral Interventions (3)
- ✎ 350 Program Planning in Health Promotion (3)
- ✎ 403 Epidemiology (3)
- 415 Grant Writing (2)
- 425 Organization and Administration of School Health (3)
- 433 Senior Health Seminar (1)

Biology - BIOL (8 S.H.)

- * 211 Anatomy and Physiology I (4)
- * 212 Anatomy and Physiology II (4)

ELECTIVES (9 S.H.)

- Biology (BIOL): 104, 206, 269
- Communication Studies (CMST): 281
- Counselor Education (CE): 220, 432
- Health, Exercise and Rehabilitative Sciences (HERS): 205, 354, 431, 490, 496
- Nursing (NURS): 260
- Physical Education & Recreation (PER): 214, 422
- Psychology (PSY): 298
- Sociology (SOC): 212, 216
- Special Education (SPED): 405

PROFESSIONAL EDUCATION SEQUENCE (See Education Department)

(32-36 S.H.)

- † 305 Human Development and Learning: Secondary (4)
- 308 Human Relations and Student Diversity (3)
- † 312 Instructional Planning and Assessment: Secondary (3)
- ‡ 429 Secondary Reading and Teaching Strategies (4)
- 449 Middle Level Philosophy, Organization and Interdisciplinary Planning (3)
- ‡ 459 The Professional Educator (3)
- 465 Student Teaching [Health (5-12) 12 credits]
[Health/PE (K-12) 16 credits]

† Courses must be taken together.

‡ Courses must be taken together and the last semester prior to student teaching.

B.S. MAJOR - EXERCISE AND REHABILITATIVE SCIENCE

72 - 81 S.H. (No Minor Required)

A student choosing to major in Exercise and Rehabilitative Science may choose one of four options: Athletic Training, Cardiopulmonary Rehabilitation, Exercise Science, or Movement Science. Each of these options leads to a Bachelor of Science degree. The programs in Exercise and Rehabilitative Science have been designed in accordance with the requirements of the following leading national organizations: American College of Sports Medicine (ACSM), the National Athletic Trainers Association (NATA), and the National Strength and Conditioning Association (NSCA).

- Students interested in working with cardiac or pulmonary patients in a clinical setting should choose the Cardiopulmonary Rehabilitation option.
- Students interested in focusing on injury assessment, treatment and rehabilitation of athletic injuries should choose the Athletic Training option.
- Students interested in exercise and health programming in a variety of settings such as fitness centers, worksite settings, or athletic programs should choose the Exercise Science option.
- Students interested in pursuing graduate studies in exercise or rehabilitative sciences (such as kinesiology, biomechanics, exercise physiology, physical therapy, occupational therapy, physician's assistant, chiropractic medicine) should choose the Movement

Science option. Additional information on exercise science career opportunities can be found at <http://www.acsm.org>, <http://www.nata.org>, <http://www.nscs-lift.org>, and <http://www.css.edu/asep>.

ACADEMIC REQUIREMENTS

For a checklist of the University's graduation requirements, see page 22. Specific academic requirements for Exercise and Rehabilitative Science majors are described within each option.

CORE REQUIREMENTS (49 S.H.)

Health, Exercise and Rehabilitative Sciences - HERS (31 S.H.)

- 235 Professional Issues in Exercise Science (3)
- 280 Techniques of Fitness Programming (2)
- 291 Prevention and 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)
- 389 Strength and Conditioning Principles and Programming (3)
- ✎ 403 Epidemiology (3)
- ✎ 445 Medical Aspects of Exercise (3)

Physical Education/Recreation - PER (3 S.H.)

- 300 Motor Learning and Development (3)

Biology - BIOL (8 S.H.)

- * 211 Anatomy and Physiology I (4)
- * 212 Anatomy and Physiology II (4)

Nursing - NURS (4 S.H.)

- 360 Pharmacology (1)
- 366 Pathophysiology (3)

Statistics - STAT (3 S.H.)

- * 110 Fundamentals of Statistics (3) OR
- 210 Statistics (3)

EXERCISE AND REHABILITATIVE SCIENCE: ATHLETIC TRAINING (ERAT)

The Exercise and Rehabilitative Science: Athletic Training option is nationally accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). In addition to the academic coursework requirements, students are required to complete clinical education experience and fieldwork experiences (as 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 Board of Certification.

Students interested in the Exercise and Rehabilitative Science: Athletic Training option must apply to the program, participate in a competitive selection process, and adhere to published retention guidelines. Additional Athletic Training Education Program information can be found at <http://www.winona.edu/athletictraining>. Winona State University has a long-standing tradition of graduates that become certified athletic trainers and positively contribute to the allied health profession of athletic training. Graduates have secured positions with professional teams, semi-professional teams, Olympic teams, as University Head Athletic Trainers, as Athletic Training Clinical Directors, and as Clinic-High School athletic trainers. Graduates have also gone on to graduate school in athletic training, human performance, exercise physiology, physical therapy, physician's assistant, and chiropractic school.

ATHLETIC TRAINING STUDENT PROGRAM

Following successful completion of the application process, students must acquire clinical experiences over a minimum of two and a half academic years as assigned by the Program Director. These experiences will be on a rotation as described in the *WSU Athletic Training Handbook* and be acquired at a variety of settings that include experiences with upper extremity intensive sports, lower extremity intensive sports, equipment intensive sports, and general medical rotations. These experiences will be under the direct supervision of a variety of Approved Clinical Instructors (ACIs), as well as experiences with other types of health care providers. However, the majority of the student's clinical experiences will be at WSU in a traditional athletic training setting.

Students obtain traditional clinical education experiences with football, hockey, gymnastics, soccer, basketball, volleyball, baseball, softball, track, and wrestling. Students have many opportunities to attend team practices and events, attend NCAA Division II post-season competitions, attend orthopedic surgeries, and learn from our team physician on campus and at the clinic or hospital.

Athletic Training majors build on the foundation courses of anatomy, physiology, kinesiology, exercise physiology, nutrition and mechanical kinesiology with specific athletic training education courses. These courses expose the student to CAAHEP competencies and proficiencies in injury prevention, recognition, evaluation, treatment, and rehabilitation.

Clinical sites include the athletic training facilities at WSU, Saint Mary's University, Winona Senior High School, Cotter High School, and Arcadia High School. Students also gain valuable community-based medical experience at Southeast Minnesota Sports Medicine and Orthopaedic Surgery Specialists; Sport & Spine Physical Therapy clinic; Rushford Medical Clinic; Winona Area Ambulance Service; Ping Chiropractic and Wellness Center; and Community Memorial Hospital's Physical Therapy Department, Emergency Department, and Surgery Department.

APPLICATION AND SELECTION INFORMATION

A student who is interested in the Exercise and Rehabilitative Science: Athletic Training major should meet with the Athletic Training Program Director and enroll in HERS 191 (Introduction to Athletic Training), BIOL 211, and BIOL 212 during their first year at WSU. Students enroll in HERS 291 and HERS 314 and begin clinical education experiences during the fall semester of the second year. Applications are due the first week of December each year.

Applications will be rated and ranked by academic class; 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:

- Official Documentation (10 points)** should be sent from the following institutions or agencies to the Program Director.
 - Winona State University Transcripts: To be considered, students must have a cumulative 2.75 GPA and a 2.75 GPA in the major. Students must have completed HERS 191, BIOL 211, and BIOL 212. When they apply, students should be enrolled in HERS 291 and HERS 314 and be progressing appropriately. Other exercise and rehabilitative science and biology courses will also be evaluated independent of the overall GPA.
 - Transfer students must provide official transcripts from all other institutions attended. Transfer students must take HERS 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 HERS 362, 389, 391, 392, 393, 491, 492, 494, and 495 at WSU.
 - Proof of First Aid, CPR Certification, or First Responder Certification.
 - Completed Medical Physical (form available from Athletic Training Program Director).
 - Completed Technical Standards (form available from Athletic Training Program Director).
 - Hepatitis B vaccinations (or declination).
- Winona State University Observation Hours and Reflective Journal (10 points).** Each student will complete observation hours in the WSU Athletic Training Room as required for HERS 191. Each student will compile a typed journal documenting dates, times of field experience, sequence of events, elaboration of significant experiences, and an analysis of the experiences. Students will be given the opportunity to continue their observation hours throughout the first year for a total of no more than 70 hours per year. Students will continue their Reflective Journal in HERS 291.
- Letters of Recommendation (13 points).** Each student is required to provide a total of five letters of recommendation. Two of these letters will be from a Senior Athletic Training Student reflecting the student's 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 with whom the student has worked directly through observation hours such that they can reflect the student's potential to succeed in an allied health profession. These professional letters may also be from professors or instructors reflecting the student's academic success and potential. Finally, these letters may be from employers reflecting the student's maturity, interpersonal skills, and other qualities of a successful allied health care professional.
- Cover letter and resume (4 points).** The completed application should include a single-spaced essay or cover letter stating the student's qualifications to be part of the program, why the student wishes to become an athletic trainer, and a summary of what the student can add to the program. A simple one-page resume should also be included.

WSU Student Athletic Training Student Retention Competencies

The following academic, clinical, and program compliance requirements apply for athletic training students who have successfully completed the application process and who have been selected to the Athletic Training Program. Detailed retention information can be found at <http://www.winona.edu/athletictraining>.

Academic Requirements

The Athletic Training Program Director will review transcripts at the beginning of each semester. Students must:

- Meet WSU graduation standards (page 22)
- Maintain a cumulative WSU GPA not less than 2.75
- Maintain a 2.75 overall GPA in the Exercise and Rehabilitative Science: Athletic Training Option
- Attain a "B" or better in all athletic training option courses

Clinical Education Requirements

- Compliance with ALL objectives, policies and procedures established in the *WSU Athletic Training Handbook*
- Compliance with the NATA's Code of Ethics (Athletic Training Handbook)
- Compliance with the WSU Student Handbook (Student Rights and Responsibilities published in semester class schedules)
- Compliance with assignments/directions given by the athletic training approved clinical instructors.
- Demonstrate appropriate clinical skill acquisition paralleling clinical and academic experience level.
- Positive monthly and annual evaluations.
- Satisfactory completion of "Assessment Day" activities.
- Detailed requirements are posted on the program's website.

Program Compliance

Athletic training students are expected to comply with all academic and clinical guidelines. Athletic training students and pre-professional students must 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 (see program website <http://www.winona.edu/athletictraining>) and covered extensively in HERS 191, Introduction to Athletic Training.

REQUIRED COURSES (35 S.H.)

Health, Exercise and Rehabilitative Sciences - HERS 32 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 (5)
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)
495	Capstone Clinical Skill Proficiency Lab (2)

Psychology - PSY (3 S.H.)

- * 210 General Psychology (3)

EXERCISE AND REHABILITATIVE SCIENCE: CARDIOPULMONARY REHABILITATION (ERCR)

This clinically focused exercise physiology major has several career-related tracks. Its primary feature is to prepare students to care for individuals who suffer from cardiovascular and/or pulmonary disease utilizing a therapeutic program of exercise, risk factor reduction and education in a structured rehabilitation setting. A hospital and/or clinic are the primary employers. The curriculum is structured around the American College of Sports Medicine (ACSM) knowledge, skill, and ability learner outcomes; students are encouraged to sit for the ACSM (Exercise Specialist) certification exam after graduation. One hundred hours of clinical practical experience in our on-campus cardiopulmonary rehabilitation program and at Community Memorial Hospital (Winona, MN) is required late in the junior year. A 600-hour "capstone" clinical internship is also required when all coursework is complete. The internship site locations are national in scope of placement.

* "Additional Requirements" course as defined in Item 3, page 19.

Many students who enter this field choose related allied health tracks for employment as a result of their practical and internship experience. Some further their education in a special clinical field (ultrasonography is one example). Our students are also satisfactorily employed in Stress Testing (nuclear included) labs, catheter labs, patient education positions, community rehabilitation programs, ECG fields, and other cardiovascular related specialties. More information can be obtained from www.acsm.org or www.css.edu/asep/.

Academic graduation requirements include:

- Attain a "C" or better in all major courses.
- Attain a 2.5 or better overall GPA.

REQUIRED COURSES (27 S.H.)

Health, Exercise and Rehabilitative Sciences - HERS (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 - NURS (3 S.H.)

- 392 Cardiac Risk Prevention (3)

Counselor Education - CE (3 S.H.)

- 432 Stress Management (3)

EXERCISE AND REHABILITATIVE SCIENCE: EXERCISE SCIENCE (ERES)

Students majoring in this option are prepared to administer comprehensive health and fitness programs to a variety of clients. Through coursework and other experiences, students learn how to design and administer appropriate strength, power, flexibility, agility, and cardiorespiratory programs based on clients' goals, needs, and abilities. Students also learn how to administer health appraisals, assess client needs, design and administer appropriate programs such as: smoking cessation, low back, blood pressure, weight control, and nutrition counseling. Employment opportunities include corporate facilities, fitness centers, hospital wellness programs, community centers, or athletic programs.

Students may choose to specialize in areas such as strength training, personal training, nutrition, strength and conditioning with athletes, or working with unique populations through practicum and internship experiences. Upon completion of the degree, students are prepared to sit for American College of Sports Medicine (ACSM) certification as a Health Fitness Instructor and/or National Strength & Conditioning Association (NSCA) certification as a Certified Strength and Conditioning Specialist or Certified Personal Trainer.

Academic graduation requirements include:

- Attain a "C" or better in all major courses.
- Attain a 2.5 or better overall GPA.

REQUIRED COURSES (30-32 S.H.)

Health, Exercise and Rehabilitative Sciences - HERS (20 S.H.)

- 288 Health Perspectives (3)
- 328 Behavioral Interventions (3)
- ☞ 350 Program Planning in Health Promotion (3)
- 363 Practicum in Exercise Science (3)
- 499 Internship in Exercise Science (8)

Psychology - PSY (3 S.H.)

- * 210 General Psychology (3)

REQUIRED ELECTIVES (7-9 S.H.)

- HERS 344 Electrocardiography (3) AND
- HERS 420 Clinical Exercise Testing and Prescription (4) OR
- * ACCT 211 Financial Accounting Principles (3) AND
- * ECON 201 Principles of Microeconomics (3) AND
- MGMT 315 Principles of Management (3)

PREREQUISITES

HERS 204 (for HERS 288) and HERS 205 (for HERS 360)

SUGGESTED ELECTIVES

Counselor Education

- CE 432 Stress Management (3)

Business Administration

- BUSA 291 Legal Environment of Business (3)

Psychology

- * PSY 250 Developmental Psychology (3)
- * PSY 298 Health Psychology (3)
- PSY 420 Abnormal Psychology (3)

Biology

- BIOL 171 Medical Terminology A (1)
- BIOL 172 Medical Terminology B (1)

EXERCISE AND REHABILITATIVE SCIENCE: MOVEMENT SCIENCE (ERMS)

This option is designed to meet graduate school entrance requirements in a Movement Science field including biomechanics, exercise physiology, kinesiology, motor learning, physical therapy, occupational therapy, physician's assistant, or chiropractic medicine. Students should meet early with the advisor to plan their program of courses. The course of study provides students with a thorough understanding of areas related to both natural and movement science. Each student is required to develop an appropriate research project; perform data collection; and present the results as a poster presentation, journal article, or research paper.

Students enrolled in the Exercise and Rehabilitative Science: Movement Science option must maintain a minimum of 3.0 GPA in the Exercise Science core and the Movement Science option coursework. If students fail to meet these requirements, they will be put on academic probation and be given one semester to attain the 3.0 GPA. If, after one semester, the student fails to meet the 3.0 GPA, she/he will be dismissed from Movement Science program of study.

REQUIRED COURSES (45-47 S.H.)

Health, Exercise and Rehabilitative Sciences (6-8 S.H.)

- HERS 364 Practicum in Movement Science (1-3)
- HERS 390 Movement Science Research Design (3)
- HERS 412 Movement Science Research Data Collection (2)

Mathematics and Statistics (4 S.H.)

- * MATH 120 Precalculus (4)

Psychology (9 S.H.)

- * PSY 210 General Psychology (3)
- * PSY 250 Developmental Psychology (3)
- PSY 420 Abnormal Psychology (3)

Physics (8 S.H.)

- * PHYS 201 General Physics I (4)
- * PHYS 202 General Physics II (4)

Chemistry (8 S.H.)

- * CHEM 212 Principles of Chemistry I (4) AND
- * CHEM 213 Principles of Chemistry II (4)

Sociology (3 S.H.)

- * SOC 150 Human Society (3)

Biology (4 S.H.)

- * BIOL 241 Basics of Life (4) OR
- * BIOL 242 Organismal Diversity (4)

Computer Science (3 S.H.)

- * CS 130 Introduction to Basic Programming (3) OR
- * CS 116 Web Technology (3)

SUGGESTED ELECTIVES

Biology

- BIOL 209 Microbiology (3)
- ☞ BIOL 307 Cell Biology Laboratory (1)
- ☞ BIOL 308 Cell Biology (3)
- ☞ BIOL 309 Developmental Biology (3)
- ☞ BIOL 310 Genetics (3)
- BIOL 340 Virology (3)
- BIOL 430 Molecular Biology (3)
- BIOL 431 Molecular Biology/Lab (4)
- BIOL 470 Histology (4)

Chemistry

- CHEM 340 Organic Chemistry Survey (4)
- CHEM 438 Medicinal Chemistry (2)

Health, Exercise and Rehabilitative Sciences

- HERS 344 Electrocardiography (3)
- HERS 420 Clinical Exercise Testing and Prescription (4)

Mathematics

- MATH 160 Calculus I (4)
- MATH 161 Calculus Companion (1)

COURSE DESCRIPTIONS (HERS) HEALTH PROMOTION

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. Upon successful completion of this course, students will (1) have knowledge of basic health content areas; (2) understand journaling and the value of nutrition, exercise and weight management; and (3) know how family history is of value. Grade only. Offered each semester.

288 - Health Perspectives (3 S.H.)

An 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. Upon successful completion of this course, students will (1) understand the many different theories of health, (2) know the history and philosophy of health education/health promotion, and (3) be exposed to several health working documents. Prerequisite: HERS 204. Grade only. Offered each semester.

311 - Comprehensive School Health Program (3 S.H.)

An introduction to the concepts and practice of school health promotion. This course provides students the opportunity to develop their understanding of the factors that influence the promotion of health in schools. The course is designed to help future community health educators and health teachers gain experience in the assessment of school health needs and understand the issues involved in advocating for comprehensive school health and planning school health promotion programs. Prerequisites: HERS 204 and HERS 288. Grade only. Offered each semester.

312 - Community Health (3 S.H.)

This course provides students with a foundation in the theory and practice of community health promotion. Students will have the opportunity to develop their understanding of the socio-cultural, political, and economic factors involved in community health. By the end of the course, students will have the theoretical and practical background necessary to enable them to play a coordinating and facilitating role in planning and implementing effective community health promotion initiatives. Prerequisites: HERS 204 and 288. Grade only. Offered each semester.

315 - Health Promotion Skills (3 S.H.)

This course gives students the opportunity to learn and practice the skills needed to design health messages and implement health education/promotion programs. These skills include understanding the needs of diverse communities, research methodology, health promotion material design, and health promotion resource management. Prerequisites: HERS 204, 288, and 312. Grade only. Offered yearly.

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. Upon successful completion of this course, students will (1) know the Coordinated School Health Program, (2) apply methodology of Elementary Health Education, and (3) know and understand the process of writing lesson plans. Prerequisite: HERS 204. Grade only. Offered each semester.

321 - Health Education in the Middle & Secondary Schools (3 S.H.)

Future school health professionals will learn the best practices of health curriculum for middle school and secondary students. Students will learn to specify objectives, develop sequential learning activities, create challenging and motivating lessons, and develop a curriculum for middle and/or secondary schools. Students will learn to apply individual and group learning process methods appropriate for middle school and high school students. Students will also learn proper techniques and skills needed to successfully meet the National Health Education Standards and the Minnesota State Graduation Standards. Upon successful completion of this course, students will (1) know the Coordinated School Health Program, (2) apply methodology of Middle/Secondary Health Education, and (3) know and understand the process of writing and implementing lesson plans. Prerequisites: HERS 204, 288, and 320. Grade only. Offered each semester.

326 - Educational Topics/Issues (2 S.H.)

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. Upon successful completion of this course, students will have an educated position on the most important current public health issues. They will

also be able to argue knowledgeably and coherently in support of their position and be able to give accurate information about the issues studied. Prerequisites: HERS 204 and 288. Grade only. Offered each semester.

328 - Behavioral Interventions (3 S.H.)

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. Upon successful completion of this course, students will (1) be able to create, develop and write teaching strategies, (2) learn proper presentation skills, and (3) become advocates for the field of health education/promotion. Prerequisites: HERS 204 and 288; teaching option majors: HERS 320. Grade only. Offered fall semester.

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. Prerequisite: PER 214 or First Aid and CPR certification. Offered yearly.

350 - Program Planning in Health Promotion (3 S.H.)

This is a practical course in which students are responsible for undertaking needs assessment research and developing a health promotion program in collaboration with a local business or agency. The course enables students to apply the knowledge and experience gained in lower level courses to real world problems and to further develop their health promotion/health communication skills. Prerequisites: HERS 204, 288; health promotion majors: HERS 311, 312. Grade only. Offered each semester.

395 - Practicum in Health Promotion (3 S.H.)

This course gives students practical experience of the implementation of health promotion programs. Students in the course will support the implementation and evaluation of a health promotion program in a community setting. Students may work on projects previously designed during their program planning class, or they may be involved in the implementation and evaluation of a health promotion program designed by another agency. Students are expected to clear their site choice with their onsite supervisor and the course instructor of HERS 350 (Program Planning in Health Promotion) before registering for HERS 395. Prerequisites: HERS 204, 288, 312, 321, 326, 328, 350. Grade only. Offered each semester.

403 - Epidemiology (3 S.H.)

An introduction to basic concepts of epidemiology. Students will study the ways in which disease is transmitted and distributed within populations and develop a working knowledge of basic biostatistics and epidemiological methodology. The course also provides students with an introduction to EPI Info statistical software. Prerequisites: Health Promotion majors: HERS 204, 288; BIOL 211, 212; STAT 110. Prerequisites for non-Health Promotion majors: HERS 204, STAT 110, or instructor's permission. Grade only. Offered each semester.

415 - Grant Writing (2 S.H.)

An examination of the skills required to locate funding opportunities and write and submit grant applications and reports for health promotion and education programs. This course is designed to help students to gain experience and practice in finding grant money and applying for grants to undertake community health projects. Prerequisites: Students must have senior standing. Grade only. Offered yearly.

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. Upon successful completion of this course, students will (1) understand the policy and procedures required to be an administrator in the area of health education; (2) become knowledgeable in regard to curriculum development; and (3) become both an advocate and a resource person for health education, and uphold state standards and recommendations. Prerequisites: HERS 204, 288, and 311. Grade Only. Offered yearly.

430 - Public Health (3 S.H.)

This course explores the foundations of public health practices, including health organization/agency structures and specific health concerns of target populations. The course places particular emphasis on the social influences on individual and community health. It examines the reasons for health disparities and explores the problems

* "Additional Requirements" course as defined in Item 3, page 19.

and the challenges faced by modern public health workers and health promoters. The main goal of the course is to increase students' understanding and knowledge of public health to inform their future practice as health promoters. Prerequisites: HERS 204, 288, 311, 312, 328, and 403. Grade only. Offered yearly.

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. Upon successful completion of this course, students will (1) create, develop, and oversee the workings of health conferences; (2) professionally represent Winona State University; and (3) be able to work through the evaluation process of conferences and conventions. Offered upon demand.

433 - Senior Health Seminar (1 S.H.)

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. Upon successful completion of this course, students will (1) complete all professional papers (resume, cover letter, references, etc.) that are required by the career and placement center on campus; (2) secure credible references to have in their file; and (3) develop their working professional portfolio. Prerequisites: HERS 204, 288, 311, 410; BIOL 211 and 212. Recommended prerequisites: HERS 403 and STAT 110. Senior standing. Grade only. Offered yearly.

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. Grade only. Offered upon demand.

496 - Internship in Community Health (10 S.H.)

A capstone experience in Community Health 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 Promotion faculty, and instructor's permission. P/NC.

EXERCISE AND REHABILITATIVE SCIENCE

191 - Introduction to Athletic Training (1 S.H.)

In-depth view of the Certification requirements, WSU Program Handbook, policies, procedures, selection and retention requirements, as well as athletic training room observation hours and log. Prerequisite: Department approval required. Grade only. Offered each semester.

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. Grade only. Offered each semester.

280 - Techniques of Fitness Programming (2 S.H.)

Practical experiences in the assessment of health-related fitness components 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: Current first aid certification and either BIOL 211 (for HERS and PER majors) or PER 251 (for coaching minors). Grade only. Offered each semester: fall semester for athletic training major only; spring semester for all other majors or minors.

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: BIOL 211 and 212 or equivalent. Grade only. Offered each semester.

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: BIOL 212 with grade of "C" or higher. Grade only. Offered each semester.

344 - Electrocardiography (3 S.H.)

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. Prerequisite: HERS 340 for HERS majors; BIOL 212 for non-HERS majors. Grade only. Offered fall semester 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: HERS 205 and 340. Grade only. Offered each semester.

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: HERS 380, instructor's permission and current certification in First Aid and CPR. Grade only.

362 - Athletic Training Practicum (1-5 S.H.)

Upon successful completion of the application procedure, students will enroll in one semester hour each semester for four semesters in HERS 362. 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 Exercise Science (3 S.H.)

Practical experience as a pre-professional in exercise science, with a variety of in-class and self-directed programming experiences. Prerequisite: Instructor's permission and current certification in First Aid and CPR. Grade only. Offered each semester.

364 - Practicum in Movement Science (1-3 S.H.)

Practicum experience is designed for student site-visits to either a research oriented university, hospital or clinic, or a private business that performs movement science related measurements. On-site visits may involve shadowing a movement science professional. Additionally, students are required to attend at least one movement science professional meeting or workshop. Specific goals and objectives of the practicum experience will be in writing and agreed upon by the student, faculty advisor, and the contact at the organization where site-visits are to be made. The variable credit is determined by the student and advisor based on the requirements of the graduate school to which they intend to apply. Prerequisites: HERS 314, HERS 340, HERS 370, and junior academic standing. Grade only. Offered each semester.

370 - Mechanical Kinesiology (3 S.H.)

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: HERS 235 and 314. Grade only. Offered each semester.

380 - Laboratory Methods in Exercise Science (3 S.H.)

A series of experiments designed to achieve competency in research methods, procedures and instruments typically used in human performance laboratories. Lecture and lab. Prerequisites: HERS 235, 340 and STAT 110 or STAT 210. Grade only. Offered each semester.

385 - Senior Seminar: Cardiopulmonary Rehabilitation (3 S.H.)

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.

389 - Strength and Conditioning Principles and Programming (3 S.H.)/lab

This course is designed for students preparing for National Strength and Condition Association's (NSCA) Certified Strength and Conditioning Specialist (CSCS) certification or for students wishing to gain additional practical application of exercise science, strength training and programming. The major focus of the course will be on exercise techniques, designing strength and conditioning programs, application of exercise prescription principles and facility management, organization and administrative procedures. Prerequisites: HERS 205, 280, 314, 340, BIOL 211 and BIOL 212. Grade only. Offered each semester.

390 - Movement Science Research Design (3 S.H.)

A detailed overview of the research process including discussion of research in movement science, literature review development, statement of the research problem, formulating the methods, writing the results and discussion. Completion of human subjects review committee application forms if needed, and completion of subject informed consent. Additionally, application of frequently used statistical tests including correlation, regression analysis, t-tests, analysis of variance, analysis of covariance, and post-hoc comparisons will be covered. Prerequisites: HERS 314, HERS 340, HERS 370, HERS 380, STAT 210. Grade only. Offered spring semester only.

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: Athletic training program acceptance; HERS 191 and HERS 291. Grade only. Offered yearly.

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: Athletic training program acceptance; HERS 391. Grade only. Offered yearly.

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: Athletic training program acceptance; BIOL 211 and BIOL 212. Offered yearly.

412 - Movement Science Research Data Collection (2 S.H.)

The student will complete data collection, and statistical analysis on a movement science related research topic. The project will be under the direct supervision of an HERS faculty mentor. Students will use their collected data to write one of the following: poster presentation, research paper, or a journal article. Prerequisites: HERS 314, HERS 340, HERS 370, HERS 380, STAT 210, HERS 390. Grade only. Offered fall semester only.

420 - Clinical Exercise Testing and Prescription (4 S.H.)

Methods, procedures and techniques of functional and diagnostic exercise stress testing will be emphasized. For normal, cardiopulmonary, and other special populations, special consideration is given for contraindications, pharmacological intervention, protocol selection, equipment selection, data interpretation, follow-up procedures and exercise prescription. Lecture and lab. Prerequisite: HERS 344 and 380. Grade only. Offered spring semester only.

445 - Medical Aspects of Exercise (3 S.H.)

Selected topics regarding the science and medicine of sports and exercise participation. Areas to be covered include pharmacological aspects, overtraining and overreaching, the effect of exercise on reproductive function, and particularly exercise for special populations. Prerequisite: HERS 340 and NURS 366. Grade only. Offered each semester.

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. Grade only. Offered each semester.

491 - Therapeutic Treatment and Rehabilitation of Athletic Injuries (3 S.H.)

Indications and applications of therapeutic modalities and rehabilitation exercises will be investigated and developed into comprehensive rehabilitation programs. Lecture and lab. Prerequisites: Athletic training program acceptance; HERS 340, HERS 370, HERS 389, HERS 392 and HERS 393. Grade only. Offered yearly.

492 - Administration of Athletic Training (3 S.H.)

Designed to prepare athletic training students for the behind-the-scenes duties that are required to ensure that an athletic program is functioning efficiently and properly. Areas covered include liability, budgeting, record-keeping, and other administrative areas. Prerequisite: Athletic training program acceptance; HERS 392. Grade only. Offered yearly.

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: Athletic training program acceptance; HERS 391, PSY 210.

495 - Capstone Clinical Skill Proficiencies Lab (2 S.H.)

This is a capstone clinical skill acquisition lab course. Students that have successfully completed the academic and clinical requirements of the Exercise and Rehabilitative Science: Athletic Training major will take this course in the final semester. This course will serve as the final assessment of clinical skill learning over time. Final semester of Exercise and Rehabilitative Science: Athletic Training major with successful completion of all academic, clinical, and program requirements.

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's 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 sports medicine 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 Exercise Science (8 S.H.)

A capstone experience in exercise science to foster the culmination of skills and abilities necessary for the entry-level exercise science professional. 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

Minné Hall, Room 212 (507-457-5400)
Chairperson's email: mbyman@winona.edu
Department's email: swheat@winona.edu
Marianna Byman (Chairperson)

FACULTY

Marianna Westbrook Byman, Professor; B.A., Baylor University; M.S., Winona State University; D.A., University of North Dakota; 1988 -
Seymour Byman, Professor; B.A., University of Illinois; M.A., Roosevelt University; Ph.D., Northwestern University; 1970 -
John Campbell, Associate Professor; B.A., Wesleyan University; M.A., Ph.D., University of Minnesota-Twin Cities; 1996 -
Peter V. N. Henderson, Professor, B.A., J.D., Vanderbilt University; M.A., Ph.D., University of Nebraska-Lincoln; 1989 -
Kurt Hohenstein, Assistant Professor, B.A., J.D., M.A., University of Nebraska; Ph.D., University of Virginia; 2005 -
Colette A. Hyman, Professor; B.A., Brown University; M.A., Ph.D., University of Minnesota-Twin Cities; 1990 -
Matthew Lindaman, Assistant Professor; B.A., M.A., University of Northern Iowa; Ph.D., University of Kansas; 2002 -
Gregory G. Schmidt, Professor; B.A., M.A., Ph.D., University of Illinois-Urbana; 1984 -

DEGREES AND PROGRAMS

The History Department offers a B.A. major and a B.A. minor in history. In addition, the department coordinates and administers the B.S. Paralegal Program, advises pre-law students, and manages the Law and Society Program. The department also oversees the Social Science/History Program for secondary-level social studies teachers.

* "Additional Requirements" course as defined in Item 3, page 19.

HISTORY PROGRAM

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 to 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 methods of historical research, interpretation and writing. As a capstone experience, majors complete their course of study in a Senior Seminar, which requires them to produce 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 Paralegal program enables students to develop both intellectual and professional skills in the law. It is designed to meet the needs of students wishing to enter 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; and a deeper understanding of the substance, politics and history of the law. The American Bar Association approves the WSU Paralegal Program. For more information about the Paralegal Program, see page 163.

SECONDARY-LEVEL SOCIAL STUDIES AND HISTORY TEACHING

Students interested in teaching history at the high school and middle level 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, 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) on page 187. The education component of the program, called the Professional Education Sequence, is described in the Education Department section of this catalog (page 87).

LAW AND SOCIETY PROGRAM

The Law and Society Program is an interdisciplinary major that enables students to study law and legal culture from many different disciplinary, conceptual, historical, theoretical, and empirical perspectives. For more information about the Law and Society Program, see page 133.

DEPARTMENT SCHOLARSHIPS AND AWARDS

- The History Department offers four scholarships each year. Contact the department office for further information.
- 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 WSU from 1924 to 1964.
 - Junior history majors may apply for the Norman and Clare Sobiesk Scholarship, honoring Dr. Norman Sobiesk, who taught history at WSU from 1970 to 2005.
 - History and paralegal majors are eligible for the Marvin and Muriel Palecek Scholarship, honoring Dr. Marvin Palecek, who taught history at WSU 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.

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 office for further information.

PROGRAM RESULTS AND ASSESSMENT

The department believes that the history major should produce the following educational results for students:

- 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 ongoing 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 judgments.
 - Develop students' commitment to a life-long search for learning and truth.
 - Promote among students a collaborative work and learning ethic.

The department has adopted a plan to use samples of student work to assess the program's effectiveness and need for change. History majors become acquainted with the assessment plan in HIST 100, Introduction to History.

ADDITIONAL REQUIREMENTS

Coursework below a grade of "C" in 300- and 400-level courses does not count toward completion of the history major or minor program.

PASS/NO CREDIT (P/NC) COURSES




No history course can be taken on a P/NC basis, with the exceptions of internships and institutes.

TRANSFER STUDENTS

For the B.A. history major, transfer students must complete at least 18 semester hours of WSU history coursework 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. history minor must complete at least 12 semester hours in WSU history coursework.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The History Department offers the following flag courses in the University Studies Program:

FLAG		Writing 
Oral 		HIST 370 Legal Research and Writing I (3)
HIST 315	Women in U. S. History (3)	HIST 428 The History of Biography (3)
HIST 385	Trial Advocacy (1) (may be repeated up to maximum of 3 credits)	HIST 463 History of Mexico (3)
HIST 398	Topics in History with Oral Communication Emphasis (3)	HIST 467 Foreign Travelers in "Exotic" Lands (3)
Math/Critical Analysis 		HIST 484 Depression, New Deal, and War (3)
HIST 372	Legal Research and Writing II (3)	HIST 485 Contemporary America (3)
HIST 495	Senior Research Seminar I (3)	HIST 496 Senior Research Seminar II (3)

Flag courses that can be used to satisfy History major/minor requirements are identified in the lists of required courses and electives in this section.

B.A. MAJOR - HISTORY (HIST)

48 S.H (No Minor Required)

REQUIRED COURSES (28 S.H.)**Western Civilization Sequence - HIST (6 S.H.)**

Two of the following:

- 120 Western Civilization to 1500 (3)
- 121 Western Civilization, 1500 to 1815 (3)
- 122 Western Civilization, 1815 to Present (3)

Note: Students can substitute HIST 125 (Classical History) for HIST 120 (Western Civilization to 1500)

United States History Sequence - HIST (6 S.H.)

Two of the following:



- 150 United States History to 1865 (3)
- 151 United States History Since 1865 (3)
- 214 The Mississippi River in U. S. History (3)

Developing Societies and Different Cultures Sequence - HIST (6 S.H.)

Two of the following:

- 123 East Asian Civilization (3)
- 165 Latin American History (3)
- 170 African Civilization (3)
- 220 Introduction to African-American History (3)
- 235 History of the American Indian (3)

Other Required History Courses - HIST (9 S.H.)

- 298 Historical Research Methods and Historiography (3)
-  495 Senior Research Seminar I (3)
-  496 Senior Research Seminar II (3)

ELECTIVES (21 S.H. 300- and 400-level courses)

Electives are subject to an advisor's approval.

- Students must take at least 3 S.H. in each of the three sequence areas: European, United States, and Developing Societies and Different Cultures.
- The courses, Topics in History (HIST 397) and Independent Readings in History (HIST 499), are counted in the sequence area the department deems appropriate.
- Students may count HIST 295, Sophomore Seminar, as an elective.
- 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) and the Historical Museum Internship (HIST 390) as electives in the history major program.

B.A. MINOR - HISTORY (HIST)

27 S.H.

REQUIRED COURSES (18 S.H.)**Western Civilization Sequence - HIST (6 S.H.)**

Two of the following:

- 120 Western Civilization to 1500 (3)
- 121 Western Civilization, 1500 to 1815 (3)
- 122 Western Civilization, 1815 to Present (3)

Note: Students can substitute HIST 125 (Classical History) for HIST 120 (Western Civilization to 1500)

United States Sequence - HIST (6 S.H.)

Two of the following:

- 150 United States History to 1865 (3)
- 151 United States History Since 1865 (3)
- 214 The Mississippi River in U. S. History (3)

Developing Societies and Different Cultures Sequence - HIST (3 S.H.)

One of the following:

- 123 East Asian Civilization (3)
- 165 Latin American History (3)
- 170 African Civilization (3)
- 220 Introduction to African-American History (3)
- 235 History of the American Indian (3)

Research Requirement - HIST (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.
- Students may count HIST 295, Sophomore Seminar, as an elective.
- 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) and the Historical Museum Internship (HIST 390) as electives in the history minor program.

COURSE DESCRIPTIONS (HIST)**101 - Introduction to Law and Society (1 S.H.)**

An introduction to interdisciplinary studies as it relates to the law and society major. Students will examine a series of historical and contemporary legal issues from a variety of disciplinary perspectives. This course is required of all law and society majors. Grade only.

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 each 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 each semester.

123 - East Asian Civilization (3 S.H.)

A survey of China and Japan from the pre-modern era to the present with emphasis on their traditional institutions and values and their responses to Western imperialism. Topics include 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.

* "Additional Requirements" course as defined in Item 3, page 19.

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.)

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. Offered each semester.

151 - United States History Since 1865 (3 S.H.)

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. Offered each semester.

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.

214 - The Mississippi River in U.S. History (3 S.H.)

A survey of the significance of the Mississippi River in U.S. history. The course emphasizes the role of the river in the native-American life and early European exploration of the mid-west, and the efforts of European powers and the newly created U.S. to control the river. The course also studies the role of the river in economic change, slavery, pre-Civil War immigration, and federal policy. The course will also consider the western theater of the Civil War; the post-war bridging of the river and industrial development along it; and its 20th-century flooding, damming, and related controversies. 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.

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. 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 attitudes and stereotypes surrounding natives and examines their growth as a political entity in American history. Prerequisites: ENG 111 or instructor's permission. 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. Enrollment limited to 20 students. History majors and minors and social science/history majors may count this course as an elective in the category calling for 300- and 400-level elective credits. Prerequisite: Any 100-level history course and permission of the department. Grade only.

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, law and society major standing, or social science/history major standing and ENG 111. Limited to 20 students. Instructor's permission required. 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: HIST 150 and 151. Grade only.

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: HIST 360 and permission of the department. Internship credits may not be counted toward completion of the history major or minor.

397 - Topics in History (1-3 S.H.)

In-depth study of current topics in society and the historical profession. With different topics, can be repeated. Grade only.

398 - Topics in History with Oral Communication Emphasis (3 S.H.)

In-depth study of topics of current concern to historians including newer areas of research, emerging themes, and recent interpretive debates. The assignments will include an emphasis on discussion and oral presentations.

428 - The History of Biography (3 S.H.)

This course provides an examination of the history of the literary form known as biography and autobiography. The course examines five different types of biographies that have evolved from the time of Plutarch to the present. Students will examine texts and determine what makes the biography effective (or not) as an illustration of the human condition. Grade only.

495 - Senior Research Seminar I (3 S.H.)

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). Prerequisite: Major status in history or social science/history or law and society, senior standing, and HIST 298. Students must be carrying no Incompletes at time of registration. Instructor's permission required. Grade only.

496 Senior Research Seminar II (3 S.H.)

In-depth research and writing on selected topics in the spring semester. In this course, students will complete the writing of a major research paper begun in History 495. Students will conduct research based on primary research materials gathered in HIST 495 (Senior Research Seminar I), and they will write the paper in Senior Research Seminar II. Prerequisites: History, Law and Society or Social Science/History Major status, senior standing, HIST 298, HIST 495, and instructor's permission. Grade only.

499 - Independent Readings in History (1-3 S.H.)

The exact nature of this course will be determined by the needs of the student. May be repeated to a maximum of nine credit hours. The student must have written consent of the instructor. Offered each semester.

HISTORIES OF DEVELOPING SOCIETIES AND DIFFERENT CULTURES SEQUENCE

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.

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.

343 - Modern China (3 S.H.)

This course permits in-depth study of the major events and issues in China's dynamic transformation from the world's oldest and largest bureaucracy to a revolutionary state and its subsequent evolution to the contemporary political and economic phenomenon we know today. Tracing pre-modern legacies that have helped shape China, the course covers the decline and fall of the Qing dynasty through the creation of Communist China and the unfolding of the post-Mao, so-called "reform era." The course will also address the lesser-known areas of Tibet and

Xinjiang Uyghur Autonomous Region, as well as Hong Kong and Taiwan. Grade only.

461 - Latin American Social Revolution (3 S.H.)

An analysis of Latin American'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.

463 - History of Mexico (3 S.H.)

This course provides an in-depth examination of the history of the Mexican nation from pre-historic times to the present. Themes discussed include the Native American and Spanish roots of Mexican culture, the coming of independence and the construction of the nation state, the liberal-conservative conflict, the Mexican Revolution of 1910, the continuing Mexican Revolution, and the rise of the neo-Porfirian state in recent decades. Grade only.

467 - Foreign Travelers in "Exotic" Lands (3 S.H.)

This course is designed to provide students with an opportunity to study select British and American travelers in the nineteenth and twentieth centuries who visited and wrote about "Exotic" places such as South America, Mexico, Africa, or the South Sea Islands. The course explores what happens to these writers at the "point of contact" and will critique their subsequent evaluations of the different cultures that they visited. Grade only.

468 - History of the Andean Nations (3 S.H.)

This course provides students with an in-depth examination of the history of the Andean nations of Colombia, Ecuador, Peru, and Bolivia from pre-Hispanic times to the present. Emphasis will be placed on the development of the indigenous cultures adaptation to their environment; the emergence of sophisticated urban traditions and cultures, the growth of the Inca empire, the encounter with the Spanish in the 16th century; the evolution of a unique Andean culture; the growing conflicts within the imperial system that lead to independence; the quest for nationhood and modernization in the 19th century; and the rise of populism, social reformers, militarism, drug trafficking, and other current challenges. 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.

UNITED STATES HISTORY SEQUENCE

315 - Women in U.S. History (3 S.H.)

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.

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.

345 - History of American Sports (3 S.H.)

A historical look at the place and value of sport in American culture. Grade only.

365 - American Legal History (3 S.H.)

An overview of Anglo-American legal history from pre-colonial England 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 legal development in social, political, and economic context. Prerequisites: HIST 150 and HIST 151 or instructor's permission. Grade only.

385 - Trial Advocacy I (3 S.H.)

This course is designed to be an intensive introduction to United States trial law and techniques. Over three semesters, students will have the opportunity to prepare opening statements; direct examinations, cross-examinations, and closing arguments; and to practice those skills in the environment of the American Mock Trial Association intercollegiate competition. Students will earn one credit for each semester they successfully participate in the course up to a maximum of three credits. Prerequisite: Junior standing.

447 - America in the Vietnam War Era (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.

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.

477 - The Age of Jackson (3 S.H.)

Traces the political, social, intellectual, and cultural development of the United States from the 1820s through the 1840s. Topics include Jacksonian politics, Manifest Destiny and the Mexican War, northern society, the South and slavery, ante-bellum reform movements and Romanticism. Prerequisite: HIST 150. Grade only.

478 - The Old South (3 S.H.)

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 yeoman 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. Grade only.

479 - The Civil War and Reconstruction (3 S.H.)

Explores the culture and society of ante-bellum America, origins of the war, and 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.

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.

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.

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.

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. 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.

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.

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.

* "Additional Requirements" course as defined in Item 3, page 19.

EUROPEAN HISTORY SEQUENCE

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.

335 - The Holocaust (3 S.H.)

A historical study and analysis of the Nazi Holocaust from 1933 to 1945.

340 - 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.

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. Grade only.

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.

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.

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.

412 - French Revolution and Napoleon (3 S.H.)

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.

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 the Nuremberg trials. Prerequisite: HIST 122 or instructor's permission. Grade only.

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.

423 - Modern England (3 S.H.)

England in the modern era from the height of imperial power to the present. Grade only.

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.

440 - World War II (3 S.H.)

An examination of the origins of both the European and Asian phases of the war and of the relationship between political leadership and military strategy. The course will also examine the political, social, and economic developments on the home fronts of the principal belligerents. Prerequisites: HIST 122 and HIST 151 or instructor's permission. Grade only.

PARALEGAL SEQUENCE

370 - Legal Research and Writing I (3 S.H.)

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. Grade only. Offered yearly.

372 - Legal Research and Writing II (3 S.H.)

Students will expand use of research and writing techniques gained in Legal Research and Writing I (HIST 370) 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 370. 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 370. 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 370. 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 372. Grade only. Offered yearly.

376 - Adversary System: Criminal Procedure (2 S.H.)

Supplements HIST 373 (Adversary System: Civil Procedure) 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 372. 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. 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.)

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.

LAW AND SOCIETY

Minné Hall, Room 212 (History Dept) (507-457-5400)
Co-Directors: Kurt Hohenstein (History) and John Campbell (History)

FACULTY

John Campbell, Associate Professor; B.A., Wesleyan University; M.A., Ph.D., University of Minnesota; 1996 -
Kurt Hohenstein, Assistant Professor, B.A., J.D., M.A., University of Nebraska; Ph.D., University of Virginia; 2005 -

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. The Law and Society program offers numerous benefits for students as they pursue their post-collegiate life:

- 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.
- 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.
- 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 University student with the intellectual interests and abilities to achieve success (and satisfaction) in other post-collegiate endeavors.
- 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.
- 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

For a checklist of the University's graduation requirements, see page 22. Specific requirements for the law and society major include:

1. Being admitted to the program
2. Successfully completing the required courses with a minimum 2.50 GPA.
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 coursework for the thesis will be done in the history major sequence of Historical Methods (HIST 298) and the Senior Seminar I and II (HIST 495 and 496).

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 (LWSO)

75 S.H.

English (2 S.H.)

ENG 225 Topics in Literature (2)

Note: This course should be selected when the topic relates to law and literature. See your advisor for further clarification.

Geoscience (3 S.H.)

** GEOS 325 Environmental Geoscience (3)

History (16 S.H.)

HIST 101 Introduction to Law & Society (1)

One of the following:

* HIST 120 Western Civilization: Beginning-1500 (3)

* HIST 121 Western Civilization: 1500-1815 (3)

* HIST 122 Western Civilization: 1815-Present (3)

One of the following:

* HIST 150 U.S. History to the Civil War (3)

* HIST 151 U.S. History Since the Civil War (3)

All of the following:

HIST 355 European Intellectual & Cultural History (3)

HIST 365 American Legal History (3)

HIST 488 Constitutional History (3)

Mass Communication (6 S.H.)

MCOM 100 Mass Media & Society (3)

☞ MCOM 405 Issues and Ethics (3)

Philosophy (6 S.H.)

PHIL 210 Inductive Reasoning (3)

PHIL 332 Philosophy of Law (3)

Political Science (9 S.H.)

* POLS 120 Introduction to American Politics (3)

POLS 227 Judicial Process and Politics (3)

POLS 320 Constitutional Law (3)

Psychology (6 S.H.)

* PSY 210 General Psychology (3)

PSY 330 Psychology and the Law (3)

Sociology (6 S.H.)

* SOC 150 Introduction to Sociology (3)

SOC 210 Introduction to Criminal Justice (3)

Senior Writing & Research Requirement (9 S.H.)

HIST 298 History - Historical Methods (3)

☞ HIST 495 History - Senior Seminar I (3)

☞ HIST 496 History - Senior Seminar II (3)

Note: 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 HIST 298, 495, and 496. It is important that the research and writing project focus on some aspect of legal culture.

APPROVED ELECTIVES (12 S.H.)

History

HIST 486 American Intellectual & Cultural History (3)

Mass Communication

☞ MCOM 300 Mass Media Law (3)

Political Science

POLS 220 Civil Rights: Civil Liberties (3)

**☞ POLS 260 Development of Political Thought (3)

**☞ POLS 358 Contemporary Political Thought (3)

☞ POLS 421 The First Amendment (3)

**☞ POLS 450 Feminist Political Theory (3)

Psychology

PSY 430 Forensic Psychology (3)

Social Work

SOCW 425 Law and Social Work (3)

Sociology/Criminal Justice

SOC 315 Criminology (3)

SOC 425 Social Change and Social Movements (3)

SOC 431 Social Class and Power (3)

** These courses have specific prerequisites. Students must either satisfy these prerequisites or get permission from the instructor.

* "Additional Requirements" course as defined in Item 3, page 19.

LIBRARY SCIENCE

Darrell W. Krueger Library, Room 110 (507-457-5151)

Chairperson's e-mail: klarson@winona.edu

General Inquiries: Refdesk@winona.edu

Kendall Larson (Chairperson)

FACULTY

Russell Dennison, Systems and Cataloging Librarian, Professor; B.A., Central College; M.A.L.S., University of Wisconsin-Madison; 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 -

Joe Jackson, Instruction Librarian, Associate Professor; B.A., University of Minnesota; B.A., University of Lyon; M.S., Simmons College; M.A., Arizona State University; 1997 -

Kendall Larson, Information Gallery Librarian and Coordinator of Public Service, Associate Professor; B.A., Gustavus Adolphus College; M.A., University of Wisconsin-Madison; 2001 -

H. Vernon Leighton, Coordinator of Liaison Services and Government Documents Librarian, Associate Professor; B.A., Bucknell University; M.S., University of Illinois; 1990 -

Joe Mount, Collection Development Librarian, Assistant Professor; B.A., Wake Forest University; M.A., Ohio University; M.L.S., Indiana University-Bloomington; 1994 -

Kathryn Sullivan, Coordinator of Non-Print Resources and Distance Education, Professor; B.A., M.A., Northern Illinois University; D.Sc., Nova University; 1978 -

PURPOSE

The Library Department does not have a program per se; however, the department offers courses in computerized information retrieval to help researchers become more effective at using modern information technology to locate relevant material. Students who wish to make library science a professional career are encouraged to pursue a broad-based program of study with courses from many different fields.

LIBRARY SCIENCE (LIBS) COURSE DESCRIPTIONS

101 - Introduction to Online Information Searching (1 S.H.)

An introduction to tools and strategies for locating information in cyberspace. Emphasis is on using online public access catalogs, databases, subject-specific resources, and search strategies for these specific resources.

200 - Topics in Library/Information Science (1-2 S.H.)

A variable content course examining different topics in library and information science. Can be repeated as topics change.

MANAGEMENT OF INFORMATION SYSTEMS AND OPERATIONS

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

http://www.winona.edu/college_business/miso

Kimberlee Snyder (Chairperson)

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 -

Edward A. Duplaga, Professor; B.S., Bowling Green State University; M.B.A., Ph.D., University of Iowa; 2001 -

Patrick Paulson, Assistant Professor; B.S., M.S., Illinois Institute of Technology; J.D., Indiana University; 2000 -

Kihyum Kim, Assistant Professor; B.B.A, M.B.A, Korea University; M.A., Ph.D., University of Nebraska; 2004 -

Kimberlee Snyder, Professor; B.S., Kansas State University; M.B.A., Ph.D, New Mexico State University, 2000 -

Sohail Subhani, Associate Professor; B.S., University of Karachi; M.B.A., Ph.D., University of Texas, Arlington; 2002 -

PURPOSE

The Management of Information Systems and Operations (MISO) Department is committed to fostering excellence in both the management information systems (MIS) and operations management (OM) disciplines through progressive curriculum and the application of state-of-art technology. Students who pursue an education in MIS will develop an understanding of the integration of information systems technologies into various business areas. Students who pursue an education in OM will develop an understanding of the process of managing products and services throughout the supply chain.


GRADUATION REQUIREMENTS

1. Complete all course work required for the major.
2. Achieve a grade of "C" or better in all courses that count toward the major.
3. Complete a minimum 15 credit hours of 300/400 level courses from the MISO Department at WSU.
4. None of the courses required for a major or minor may be taken on a P/NC basis.
5. Complete a minimum of 50% of the business courses in the major at WSU.
6. Sixty-four non-business credits are required for the MIS major. Of the math, statistics, and economics courses required for the major, 6 credits of math and statistics and 9 credits of economics can be counted toward the requirement for 64 non-business credits.
7. Meet all WSU graduation requirements. For a checklist of the University's graduation requirements, see page 22.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The MISO Department offers the following flag course in the University Studies Program:

FLAG

Writing 

MIS 482 Management of Information Technology (3)

Flag courses that can be used to satisfy MIS and OM major/minor requirements are identified in the lists of required courses and electives in this section.

B.S. MAJOR - MANAGEMENT INFORMATION SYSTEMS (MIS)

76 S.H. (No Minor Required)

UNIVERSITY STUDIES REQUIREMENTS**Mathematics (3 S.H.)**

MATH 140 Applied Calculus (3)

REQUIRED COURSES (67 S.H.)**Accounting (6 S.H.)**

ACCT 211 Financial Accounting Principles (3)

ACCT 212 Managerial Accounting Principles (3)

Business Administration (15 S.H.)

BUSA 220 Business Statistics (3)

BUSA 291 Legal Environment of Business (3)

BUSA 320 Intermediate Business Statistics (3)

MGMT 325 Organizational Dynamics (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.)

MKTG 300 Principles of Marketing (3)

Mathematics (4 S.H.)

MATH 210 Foundations of Mathematics (4)

MANAGEMENT OF INFORMATION SYSTEMS & OPERATIONS**Management Information System (24 S.H.)**

MIS 202 Microcomputers in Business (3)

MIS 312 Business Computer Programming (3)

MIS 342 Advanced Business Computer Applications (3)

MIS 362 Management Information Systems (3)

MIS 372 Management of Business Systems Development (3)

MIS 412 Management of E-Commerce (3)

MIS 452 Management of Telecommunication Systems (3)

MIS 482 Management of Information Technology (3)

Operations Management (6 S.H.)

OM 334 Operations Management (3)

OM 464 Project Management (3)

ELECTIVES (6 S.H.)

ACCT 330 Accounting Information Systems (3)

ACCT 361 Intermediate Managerial/Cost Accounting (3)

BUSA 340 Management Science (3)

FIN 335 Forecasting Methods (3)

FIN 440 International Finance (3)

MGMT 435 Managing for Quality (3)

MIS 332 Business Programming Tools (3)

MIS 399 Internship Problems (3)

MIS 472 Management of LANs and WANs (3)

MIS 492 Topics in MIS (3)

OM 414 Operations Planning and Control (3)

OM 434 Quality and Productivity Management (3)

B.S. MINOR - MANAGEMENT INFORMATION SYSTEMS (MIS)

21 S.H.

REQUIRED COURSES (12 S.H.)

MIS 202 Microcomputers in Business (3)

MIS 312 Business Computer Programming (3)

MIS 342 Advanced Business Computer Applications (3)

MIS 362 Management Information Systems (3)

ELECTIVES (9 S.H.)

BUSA 340 Management Science (3)

MIS 332 Business Programming Tools (3)

MIS 412 Management of E-Commerce (3)

MIS 452 Management of Telecommunication Systems (3)

MIS 472 Management of LANs and WANs (3)

MIS 482 Management of Information Technology (3)

MIS 492 Topics in MIS (3)

OM 464 Project Management (3)

B.S. MINOR - OPERATIONS MANAGEMENT (OM)

24 S.H.

REQUIRED COURSES (15 S.H.)

BUSA 220 Business Statistics OR

STAT 210 Statistics (3) OR

STAT 303 Introduction to Engineering Statistics (3)

OM 334 Operations Management (3)

OM 414 Operations Planning and Control (3)

OM 434 Quality and Productivity Management (3)

OM 464 Project Management (3)

ELECTIVES (9 S.H.)

ACCT 361 Intermediate Managerial/Cost Accounting (3)

BUSA 340 Management Science (3)

ENGR 390 Composites Manufacturing (3)

ENGR 420 Computer Integrated Manufacturing (3)

MIS 342 Advanced Business Computer Applications (3)

MIS 462 Decision Support Systems (3)

OM 344 Purchasing (3)

OM 399 Internship Problems (3)

OM 444 Operations Strategy (3)

OM 494 Current Topics in OM (3)

STAT 320 Statistical Quality Control (3)

STAT 321 Industrial Design of Experiments I (3)

STAT 350 Design of Samples and Surveys (3)

COURSE DESCRIPTIONS**MANAGEMENT INFORMATION SYSTEMS (MIS)****200 - Independent Studies in MIS (1-2 S.H.)**

This course helps students develop basic skills in PowerPoint and Microsoft Word as required by Microsoft Office User Specialist (MOUS) certification. This is a self-study course.

202 - Microcomputers in Business (3 S.H.)

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.

312 - Business Computer Programming (3 S.H.)

An object-oriented approach to business systems development and programming using the latest tools. Problem solving techniques with emphasis on business applications, including file and database access. Grade only.

332 - Business Programming Tools (3 S.H.)

Introduction to advanced programming tools. The student will document, compile, test, and debug business application problems using new application development tools and techniques. Prerequisite: MIS 312. 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 are used to relate database administration to information systems management. Students are required to develop, implement, and evaluate a business database system. Prerequisite: MIS 202. 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: MIS 202, ACCT 220, or CS 234. Grade only.

372-Management of Business Systems Development (3 S.H.)

This course provides an understanding of business systems development concepts from the project management approach. This course prepares students for the challenges of the dynamic world of business and technology. Among the topics covered are viewing a firm as a system, the information systems infrastructure, systems development stages, process modeling, project management tool box and environmental constraints, systems development methodologies, and phases in different systems development life cycle. This course is intended for those who would like to specialize in managing the development of information systems.

398 - Internship (1-9 S.H.)

Allows the student opportunity for hands-on experience, applying MIS principles and methods in an organizational setting. Credits will not be counted in the MIS major, but will be counted as general elective credits. Prerequisite: Concurrent enrollment in MIS 399. P/NC only.

399- Internship Problems (3 S.H.)

Allows the student opportunity for hands-on experience, applying MIS principles and method in an organizational setting. Prerequisite: ACCT 211 and ACCT 212, BUSA 220, MIS 312 and MIS 362, OM 334, AND MGMT 325. Minimum 2.5 GPA. Grade only.

412 - Management of E-Commerce (3 S.H.)

E-commerce is studied from a managerial perspective. Topics include e-business, web EDI, and business uses of the Internet. The influence of technology on collaboration and new business methods are discussed. Prerequisite: MIS 362. Grade only.

452 - Management of Telecommunication Systems (3 S.H.)

This course provides an understanding of basic concepts involved in management of data communications, teleprocessing, and networks. Topics covered in this course include a review of the history of data communications and communications networks, fundamental principles of managing data and voice communications, and network security. Various commercial products are surveyed. The necessity of managing telecommunications in business is emphasized and issues in applying telecommunications in corporate environments are discussed. Also, the effects of regulatory environment in the telecommunications industry are covered. Prerequisite: MIS 362. Grade only.

472- Management of LANs and WANs (3 S.H.)

This course provides an understanding of how Local Area Networks (LAN) and Wide Area Networks (WAN) are managed and prepares students for the challenges of dealing with the issues in the dynamic networking industry. Among the topics covered are LAN/WAN connectivity, physical transmission methods and options, transmission equipments, integration of voice and data, WAN transport methods, ATM technologies, and present and future technologies and services. This course is intended for those who would like to specialize in managing networks. Prerequisite: MIS 362 and MIS 452. 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: MIS 342, MIS 362, MIS 452. 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: MIS 362. Grade only.

OPERATIONS MANAGEMENT (OM)

334 - Operations Management (3 S.H.)

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: For College of Business majors, BUSA 220, MIS 202 strongly recommended; for non-College of Business majors, BUSA 220 or its equivalent.

344 - Purchasing (3 S.H.)

A study of purchasing management. Includes objectives, procedures, organization, ordering techniques, inventory control, vendor selection, price, equipment procurement, legal aspects, make or buy, and purchasing department reports. Prerequisite: OM 334. Grade only.

398 - Internship (1-9 S.H.)

Credits will not be counted in the Operations Management minor, but will be counted as general elective credits. Prerequisite: Concurrent enrollment in OM 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.

414 - Operations Planning and Control (3 S.H.)

Study of computer-based systems and procedures for production planning and control in operations management. Primary emphasis is on developing a general model for manufacturing planning and control systems, with secondary emphasis on advanced topics in the following areas: material requirements planning, Just-in-Time, theory of constraints, and scheduling. Prerequisite: OM 334. Grade only.

434 - Quality and Productivity Management (3 S.H.)

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. Prerequisite: OM 334. Grade only.

444 - Operations Strategy (3 S.H.)

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: OM 414. Grade only.

464 - Project Management (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. Prerequisites: BUSA 220. Grade only.

494 - Current Topics in OM (3 S.H.)

This course will explore some of the latest techniques and concepts in OM. The objective of this course is to relate these techniques and concepts to a systems view of the operations function. Prerequisite: OM 334. Grade only.

MARKETING

Somsen Hall, Room 102 (507-457-5698)

<http://winona.edu/marketing>

James (Bill) Murphy (Chairperson)

FACULTY

Eve Caudill, Assistant Professor; B.S., DePaul University; Ph.D., University of Illinois at Urbana/Champaign; 2005 -

Bruce Klemz, Associate Professor; B.S., Michigan State University; M.S., Oakland University; M.B.A., University of Saint Thomas; Ph.D., University of Iowa; 2000 -

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

C. Robert Newberry, Professor; B.S., M.B.A., University of Wisconsin-La Crosse; Ph.D., University of Wisconsin-Milwaukee; 1992 -

Russell K. Smith, Jr., 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 -

PURPOSE

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 an education in marketing will develop an understanding of the processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders. Graduates are prepared for a professional career in marketing or advanced graduate studies.

MARKETING DEPARTMENT POLICIES

Academic Integrity: In complying with WSU's academic integrity policy, the Marketing Department requires that students represent themselves and their work honestly. Violations of this policy, which include cheating, fabrication of information, multiple submissions and plagiarism, shall be

sanctioned by the individual faculty member through the lowering of the student's grade and/or failing the student in the course. Serious or second violations may carry the additional sanction of dismissal from the Marketing Program. This policy is enforced in accordance with "due process" as set forth on page 28 of this catalog.

Policy Regarding Course Prerequisites: If a course is taken prior to the successful completion of prerequisite courses, then successful completion of an additional marketing course will be required for graduation. Successful completion of a course is considered to be a grade of "C" or better in the course.

GRADUATION REQUIREMENTS

1. Complete all coursework required for the major.
2. Achieve a grade of "C" or better in all marketing major required and elective courses. A marketing course taken with a grade of "D," "E," or "W" can be repeated only one time.
3. Complete an experiential marketing practicum (MKTG 399 or MKTG 429).
4. Complete a minimum of 50% of the marketing major requirements at WSU.
5. Meet all WSU graduation requirements (page 22).
6. Sixty-four non-business credits are required for the Marketing major. Of the math, statistics, and economics courses required for the major, 6 credits of math and statistics and 9 credits of economics can be counted toward the requirement for 64 non-business credits.
7. Complete the marketing core fulfills the University Studies upper-division flag requirements. (MKTG 334 fulfills the 3 S.H. math/statistics flag, MKTG 346 and MKTG 420 fulfills the 6 S.H. writing flag, and MKTG 344 fulfills the 3 S.H. oral flag.)

PASS/NO CREDIT (P/NC) COURSES

Except for internships and practica, students must take all courses in major and minor on a grade-only basis. The P/NC option is available to non-majors unless otherwise noted. Courses offered on a pass/no credit-only or grade-only basis are so designated in the course descriptions.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Department of Marketing offers the following flag courses in the University Studies Program:

FLAG

Oral

MKTG 344 Buyer Behavior (3)

Math/Critical Analysis

MKTG 334 Marketing Research (3)

Writing

MKTG 346 Marketing Plans (3)

MKTG 420 Marketing Management (3)

Flag courses that can be used to satisfy Marketing major/minor requirements are identified in the lists of required courses and electives in this section.

B.S. MAJOR - MARKETING (MKTG)

60 S.H. (No Minor Required)


REQUIRED COURSES (51 S.H.)

Accounting (3 S.H.)

ACCT 211 Financial Accounting Principles (3)

Business Administration (9 S.H.)

BUSA 291 Legal Environment of Business (3)

 MGMT325 Organizational Dynamics (3)

OM 334 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)

Mathematics Requirements (3 S.H.)

MATH 140 Applied Calculus (3) OR

MATH 160 Calculus I (3)

Statistics (3 S.H.)


STAT 210 Statistics (3)


Marketing Core (24 S.H.)


MKTG 300 Principles of Marketing (3) Prerequisites: College of Business majors: Grade of "C" or better in ACCT 211 and ECON 201; non-College of Business majors, instructor's permission.

MKTG 322 Marketing Communications (2) Must be taken with MKTG 332 and MKTG 334.

MKTG 332 Market Analysis (3) Prerequisites: Completion with a grade of "C" or better in the following courses: ENG 111, CMST 191, MATH 140, STAT 210, ACCT 211, ECON 201, MKTG 300. Must be taken with MKTG 334 and MKTG 322.

 MKTG 334 Marketing Research (3) Prerequisites: Completion with a grade of "C" or better in the following courses: ENG 111, CMST 191, MATH 140, STAT 210, ACCT 211, ECON 201, MKTG 300. Must be taken with MKTG 332 and MKTG 322.

 MKTG 344 Buyer Behavior (3) Prerequisites: Grade of "C" or better in MKTG 322, MKTG 332, and MKTG 334. Must be taken with MKTG 346.

 MKTG 346 Marketing Plans (3) Prerequisites: Grade of "C" or better in MKTG 322, MKTG 332, and MKTG 334. Must be taken with MKTG 344.

Marketing Major Practicum

MKTG 399 Internship Experience (3) OR MKTG 429 Small Business Consulting (3) fulfills the Marketing major practicum requirement. Prerequisites: MKTG 322, MKTG 332, and MKTG 334.

Capstone Courses

 MKTG 420 Marketing Management (3) Prerequisites: Grade of "C" or better in MKTG 344 and MKTG 346.

MKTG 422 Marketing Communications Capstone (1) Prerequisites: Grade of "C" or better in MKTG 344 and MKTG 346. Must be taken with MKTG 420.

ELECTIVES - MKTG (9 S.H.)

(Prerequisite: MKTG 300)

325 Professional Selling (3)

337 Qualitative Research Methods (3)

(Prerequisites: MKTG 322, MKTG 332, and MKTG 334)

329 Sport Marketing (3)

331 International Marketing (3)

333 Topics in Marketing (3)

335 Tourism Marketing (3)

336 Services Marketing (3)

339 Internet Marketing (3)

341 E-Commerce (3)

345 Sales Management (3)

349 Independent Study (3)

429 Small Business Consulting (3)

B.S. MINOR - MARKETING (MKTG)

23 S.H.

REQUIRED COURSES (20 S.H.)

Statistics (3)

Completion of statistics course as required in major, or if none required, choose any introductory statistics course

Marketing Core - MKTG (17 S.H.)

300 Principles of Marketing (3) Prerequisites: College of Business majors: ACCT 211 and ECON 201; non-College of Business majors: instructor's permission)

322 Marketing Communications (2). Must be taken with MKTG 332 and MKTG 334.

* "Additional Requirements" course as defined in Item 3, page 19.

- 332 Market Analysis (3) Prerequisite: Completion of statistics course required in major, or if none required, choose any introductory statistics course. Must be taken with MKTG 322 and MKTG 334.
- ✎ 334 Marketing Research (3) Prerequisite: Completion of statistics course required in major, or if none required, choose any introductory statistics course. Must be taken with MKTG 322 and MKTG 332.
- ✎ 344 Buyer Behavior (3) Prerequisites: Grade of "C" or better in MKTG 322, MKTG 334, and MKTG 336. Must be taken with MKTG 346.
- ✎ 346 Marketing Plans (3) Prerequisites: Grade of "C" or better in MKTG 322, MKTG 334, and MKTG 336. Must be taken with MKTG 344.

ELECTIVES (3 S.H.)

Any marketing elective (See marketing major.)

COURSE DESCRIPTIONS (MKTG)

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 any organization. Topics include buyer behavior, products, and channels of distribution, promotion, and pricing and social issues in marketing. Standard business and non-traditional aspects of marketing are explored. The potential employment scenario is reviewed. Prerequisites: For College of Business majors, ECON 201 and ACCT 211; for non-College of Business majors, instructor's permission.

322 - Marketing Communications (2 S.H.)

This course is designed to develop and refine written and oral communication skills necessary for authoring marketing communication including email, memoranda, letters, proposals, business and marketing plans, and oral presentations including effective format, design, and ethical dimensions. Prerequisites: Completion of the written and oral communications basic skills in the University Studies program, and a grade of "C" or better in both MKTG 300 and in the mathematics and statistics requirements of the marketing major or minor. MKTG 322 must be taken concurrently with MKTG 332 and MKTG 334.

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. Prerequisite: For marketing majors and minors, grade of "C" or better in MKTG 300; for non-marketing majors and minors, instructor's permission.

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. Prerequisite: For marketing majors and minors, grade of "C" or better in MKTG 322, MKTG 332, and MKTG 334; for non-marketing majors and minors, instructor's permission.

331 - International Marketing (3 S.H.)

A study of the economic, political, cultural, and business environments affecting the international marketing operations of the firm. Market selection decision, entry and operating decisions, marketing mix decisions, and organizational structures are examined. Prerequisite: For marketing majors and minors, grade of "C" or better in MKTG 322, MKTG 332, and MKTG 334; for non-marketing majors and minors, instructor's permission.

332 - Market Analysis (3 S.H.)

This course defines relevant markets, analyzes primary and selective demand for the market, segments the market, and identifies potential target markets. This course focuses on market-oriented decision-making through the analysis of consumers, competitors, and company processes. Marketing information literacy is emphasized through the utilization of numerous information sources and computer software applications. A formal situation (SWOT) analysis is researched, written, and presented. Market Analysis (MKTG 332) must be taken simultaneously with Marketing Communications (MKTG 322) and Marketing Research (MKTG 334). Prerequisites: Grade of "C" or better

in the University Studies program written and oral communication skills, Principles of Marketing (MKTG 300), and in the mathematics and statistics requirements of the major or minor.

333 - Topics in Marketing (3 S.H.)

Various courses offered in conjunction with curriculum needs and the availability of faculty with relevant expertise. Prerequisite: For marketing majors and minors, grade of "C" or better in MKTG 322, MKTG 332, and MKTG 334; for non-marketing majors and minors, instructor's permission.

334 - Marketing Research (3 S.H.)

This course analyzes the roles, the functions, and the processes that surround marketing research; it emphasizes the specification, collection, and analysis of primary data. The course examines the research process, problem definition, alternative research designs, qualitative methods, survey methods, experiments, measurement and questionnaire design, data collection, and foundational techniques for data analysis, as well as hands-on experience with computer application for data analysis. Emphasis is placed on the practical issues related to the decision maker's use of marketing information. Marketing research provides the student with substantial experience in developing critical analysis and math/statistics skills. MKTG 334 must be taken concurrently with MKTG 322 and MKTG 332. Prerequisites: Grade of "C" or better in the University Studies program written and oral communications basic skills, MKTG 300, and in the mathematics and statistics requirements of the marketing major or minor.

335 - Tourism Marketing (3 S.H.)

This course provides students with an introduction to the principles and issues associated with marketing the services and products that comprise the leisure industry. This includes examining the behavioral component of consumers who use travel, hospitality and tourism services and products, as well as the research techniques that inform marketing strategies for tourism related organizations. Prerequisite: For marketing majors and minors, grade of "C" or better in MKTG 322, MKTG 332, and MKTG 334; for non-marketing majors and minors, instructor's permission.

336 - Services Marketing (3 S.H.)

This course examines how services can be developed and marketed to increase customer satisfaction and retention in order to extend an organization's sustainable competitive advantage. Topics include the measurement and management of service quality, service recovery, linking customer measurement to performance, customer and employee roles in service delivery, and how standard marketing topics such as pricing and promotion apply to services. Prerequisite: For marketing majors and minors, grade of "C" or better in MKTG 322, 332 and 334; for non-marketing majors and minors, instructor's permission.

337 - Qualitative Research Methods (3 S.H.)

This course will introduce the students to qualitative research as a means of inquiry into consumer behavior, marketing, and marketing-related problems. Qualitative methods for data collection such as focus groups, observation, and interviewing will be considered as well as the techniques of interpretation and reporting. Prerequisite: For marketing majors and minors, grade of "C" or better in MKTG 300; for non-marketing majors and minors, instructor's permission.

339 - Internet Marketing (3 S.H.)

This course examines website design tools and techniques using core marketing concepts as the framework for successful website design. Prerequisite: For marketing majors and minors, grade of "C" or better in MKTG 322, MKTG 332, and MKTG 334; for non-marketing majors and minors, instructor's permission.

341 - E-Commerce (3 S.H.)

Through a business application, this course directly applies marketing strategies and concepts to a practical commerce-based website. It prepares future business decision makers for the rapidly changing world of web business practices. Prerequisite: For marketing majors and minors, grade of "C" or better in MKTG 322, MKTG 332, MKTG 334, and MKTG 339; for non-marketing majors and minors, instructor's permission.

344 - Buyer Behavior (3 S.H.)

This course takes a strategic perspective to examine the impact of the nature and scope of consumer and business buyer behavior on planning the marketing mix. The course includes the study of marketing management theory in the experience of consumer and business markets. Course implementation will involve detailed analysis of psychology, sociology, and social psychology theories in the development of marketing strategy and implementation plans. MKTG 344 must be taken concurrently with MKTG 346. Prerequisite: Grade of "C" or better in MKTG 322, 332, and 334.

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. Prerequisite: For marketing majors and minors, grade of “C” or better in MKTG 322, MKTG 332, and MKTG 334; for non-marketing majors and minors, instructor’s permission.

346 - Marketing Plans (3 S.H.)

This course takes a strategic perspective to examine the nature and scope of utilizing market analysis outcomes to plan the implementation of a marketing mix. 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 price adjustments. The course includes substantial experiential learning with written communications skills, including the creation and communication of a marketing plan. MKTG 346 must be taken concurrently with MKTG 344. Prerequisite: Grade of “C” or better in MKTG 322, 332, and 334.

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: Grade of “C” or better in MKTG 322, MKTG 332, and MKTG 334 and department approval.

398 - Internship (1-9 S.H.)

Credits will not be counted in marketing major, but as general elective credits. Prerequisites: Grade of “C” or better in MKTG 322, MKTG 332, and MKTG 334 and department approval. P/NC only.

399 - Internship Experience (3 S.H.)

See department chairperson for a list of requirements. Credits fulfill marketing major practicum requirement. Prerequisites: Grade of “C” or better in MKTG 322, MKTG 332, and MKTG 334 and department approval. Grade only.

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. MKTG 420 must be taken concurrently with MKTG 422. Prerequisite: Grade of “C” or better in MKTG 344 and MKTG 346.

422 - Marketing Communications Capstone (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. MKTG 422 must be taken concurrently with MKTG 420.

429 - Small Business Consulting (3 S.H.)

This is a capstone course designed to provide students with an opportunity to integrate and apply their knowledge, skills, and abilities in a real world situation. A wide variety of projects may be considered; however, all projects must be integrative and comprehensive. Projects typically consist of working with a business on a special project or assisting the business in an area in which they are trying to improve. Alternative projects have included developing a business plan for a new business, conducting marketing research, completing a special project outside the normal responsibilities for a company where you currently work, analyzing an industry, conducting original research to extend general business knowledge, etc. Credits fulfill marketing major practicum requirement. Grade only. Prerequisites: Grade of “C” or better in MKTG 322, MKTG 332, and MKTG 334 and department approval.

MASS COMMUNICATION

Phelps Hall, Room 126 (507) 457-5474

Email: mscm@winona.edu

John Weis (Chairperson)

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 -

Drake Hokanson, Associate Professor; B.A., M.A., University of Iowa; 1997 -

Cindy Killion, Professor; B.J., University of Missouri-Columbia; M.A., University of Oklahoma; Ph.D., University of Oregon; 1992 -

Rebecca McConnell, Assistant Professor, B.A., M.S., Winona State University; 2000 -

Terry Schwarze, Professor; B.F.A., University of Minnesota-Twin Cities; M.A., University of Northern Iowa; Ph.D., The Union Institute; 1988 -

John Vivian, Professor; A.B., Gonzaga University; M.S.J., Northwestern University; 1981 -

John N. Weis, Associate Professor; B.S., Northern Illinois University; M.A., Vermont College of Norwich University; 1996 -

PURPOSE

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, 1,800-watt departmental radio station serving an average weekly listening audience of 15,000.
- Bravura, a laboratory publication with a circulation of 17,000.
- Color television broadcast 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), 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 workstations.

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 theoretical and practical experience in an area of special interest.

To assist students in planning, the department prepares a list of planned courses for the next two semesters on an ongoing basis. Students may contact the Mass Communication department for a copy of this tentative schedule.

PASS/NO CREDIT (P/NC) COURSES

Except for internships, students must take all courses in their mass communication major or minor program on a grade-only basis. Courses offered on a pass/no credit-only or grade-only basis are so designated in the course descriptions.

ADDITIONAL GRADUATION REQUIREMENTS

For a checklist of the University's graduation requirements, see page 22. Specific requirements for mass communication majors/minors are as follows:

- All mass communication majors must have a cumulative GPA of 2.5 or higher to graduate.
- Students must have a GPA of 2.5 or higher to register for most mass communication courses.
- 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.

- All mass communication majors must submit an assessment portfolio prior to graduation.
- 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.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Mass Communication Department offers the following flag courses in the University Studies Program:

FLAG

Oral

MCOM 405 Mass Media Issues and Ethics (3)

Math/Critical Analysis

MCOM 300 Mass Media Law (3)

Writing

MCOM 232 News Writing (3)

MCOM 305 Mass Media History (3)

MCOM 400 Mass Communication Theory (3)

MCOM 450 International Broadcasting (3)

Flag courses that can be used to satisfy Mass Communication major/minor requirements are identified in the lists of required courses and electives in this section.

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.

CORE REQUIRED COURSES (15 S.H.)

100 Mass Media and Society (3)

210 Visual Communication (3)

 232 News Writing (3)

 300 Mass Media Law (3)

 405 Mass Media Issues and Ethics (3)

499 Electronic Assessment Portfolio (0)


ADVERTISING OPTION - 42 S.H. (MCAD)

CORE REQUIRED COURSES (15 S.H.)

CORE ELECTIVES - MCOM (3 S.H.)

Choose one:

305 Mass Media History (3)

 400 Mass Communication Theory (3)

 450 International Broadcasting (3)

ADVERTISING REQUIRED COURSES - MCOM (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.)

MCOM 205 Principles of Internet Communication (3)

MCOM 215 Photocommunication (3)

MCOM 220 Broadcast Writing (3)

MCOM 240 Public Relations (3)

MCOM 275 Publication Design (3)

MCOM 226 Video/Multimedia Planning and Design (3)

MCOM 356 Media and Society International (3)

MCOM 408 Research in Mass Media (3)

MCOM 461 Retail/Business Advertising (3)

MKTG 300 Principles of Marketing (3)

MKTG 323 Consumer Behavior (3)


BROADCASTING OPTION - 42 S.H. (MCB)

CORE REQUIRED COURSES (15 S.H.)

CORE ELECTIVES - MCOM (3 S.H.)

Choose one:

305 Mass Media History (3)

 400 Mass Communication Theory (3)

 450 International Broadcasting (3)

BROADCASTING REQUIRED COURSES - MCOM (18 S.H.)

120 Electronic Media (3)

220 Broadcast Writing (3)

225 Audio Production (3)

226 Video/Multimedia Planning and Design (3)

320 Television Operations (3)

425 Senior Seminar in Electronic Media (3)

BROADCASTING ELECTIVES - MCOM (6 S.H.)

175 Mass Communication Computer Applications (3)

205 Principles of Internet Communication (3)

321 Topics in Television Production (3)

325 Broadcast Journalism (3)

326 Mass Communication Multimedia Applications (3)

356 Media and Society International (3)

399 Internship (3)

420 Electronic Media Management (3)

JOURNALISM OPTION - 42 S.H. (MCJ)

CORE REQUIRED COURSES (15 S.H.)

CORE ELECTIVES - MCOM (3 S.H.)

Choose one:

 305 Mass Media History (3)

 400 Mass Communication Theory (3)

 450 International Broadcasting (3)

JOURNALISM REQUIRED COURSES - MCOM (18 S.H.)

175 Mass Communication Computer Applications (3)

275 Publication Design (3)

332 News Gathering (3)

334 Feature Writing (3)

336 News Editing (3)

437 Publication Practicum (3)

JOURNALISM ELECTIVES - MCOM (6 S.H.)

205 Principles of Internet Communication (3)

215 Photocommunication (3)

220 Broadcast Writing (3)

226 Video/Multimedia Planning and Design (3)

240 Public Relations (3)

310 Photojournalism (3)

345 Public Relations Writing (3)

356 Media and Society International (3)

408 Research in Mass Media (3)

430 Specialized Reporting (3)


PHOTOJOURNALISM OPTION - 42 S.H. (MCPJ)


CORE REQUIRED COURSES - MCOM (15 S.H.)

CORE ELECTIVES (3 S.H.)

Choose one:

 305 Mass Media History (3)

 400 Mass Communication Theory (3)

 450 International Broadcasting (3)

PHOTOJOURNALISM REQUIRED COURSES - MCOM (21 S.H.)

175 Mass Communication Computer Applications (3)

215 Photocommunication (3)

332 News Gathering (3)

- 275 Publication Design (3)
- 310 Photojournalism (3)
- 317 Photojournalism Practicum (3)
- 419 Senior Seminar in Photojournalism (3)

PHOTOJOURNALISM ELECTIVES - MCOM (3 S.H.)

- 205 Principles of Internet Communication (3)
- 226 Video/Multimedia Planning and Design (3)
- 240 Public Relations (3)
- 260 Advertising (3)
- 319 Studio Photography (3)
- 334 Feature Writing (3)
- 336 News Editing (3)
- 356 Media and Society International (3)
- 408 Research in Mass Media (3)
- 437 Publication Practicum (3)

PUBLIC RELATIONS OPTION - 42 S.H. (MCPR)

CORE REQUIRED COURSES (15 S.H.)

CORE ELECTIVES - MCOM (3 S.H.)

Choose one:

- ☞ 305 Mass Media History (3)
- ☞ 400 Mass Communication Theory (3)
- ☞ 450 International Broadcasting (3)

PUBLIC RELATIONS REQUIRED COURSES - MCOM (21 S.H.)

- 175 Mass Communication Computer Applications (3)
- 332 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 - MCOM (3 S.H.)

- 120 Electronic Media (3)
- 205 Principles of Internet Communication (3)
- 215 Photocommunication (3)
- 220 Broadcast Writing (3)
- 226 Video/Multimedia Planning and Design (3)
- 260 Advertising (3)
- 334 Feature Writing (3)
- 336 News Editing (3)
- 347 Public Relations Practicum (3)
- 356 Media and Society International (3)
- 361 Advertising Media Selection (3)
- 399 Internship (3)
- 408 Research in Mass Media (3)

B.A. MINOR - MASS COMMUNICATION (MC)

21 S.H.

REQUIRED COURSES - MCOM (9 S.H.)

- 100 Mass Media and Society (3)
- 210 Visual Communication (3)
- ☞ 232 News Writing (3)

ELECTIVES (12 S.H.)

Students must select 12 semester hours of credit from other mass communication courses.

COURSE DESCRIPTIONS (MCOM)

100 - Mass Media and Society (3 S.H.)
Sociological examination of the interrelationship of mass media and society in contemporary America.

115 - Photography Appreciation (3 S.H.)
An introduction to the art and expression of photography through lecture, photography assignments, discussion, and critique. Students will complete photo assignments tied to major themes of the course using simple cameras and commercially-processed film. Emphasis on wide range of genres and important photographers and their work from 1839 to the present.

120 - Electronic Media (3 S.H.)
History, characteristics, philosophy, and impact of radio, television,

and the developing electronic mass media.

175 - Mass Communication Computer Applications (3 S.H.)
Basic computer skills for the mass media using page layout as well as image generation and image manipulation applications.

205 - Principles of Internet Communication (3 S.H.)
Provides an overview of the specialized nature of communicating to mass audiences via the Internet. Instructs students on development of websites using Dreamweaver and Flash to communicate clearly and maintain interest while providing effective communication.

210 - 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.

215 - Photocommunication (3 S.H.)
An intermediate level course that is intended to provide the student with additional experience conceptualizing, producing, and talking about photographs. Prerequisite: MCOM 210.

220 - Broadcast Writing (3 S.H.)
Radio and television writing including commercial copy, feature programs, and news. Prerequisite: ENG 111.

225 - Audio Production (3 S.H.)
Design, technique, production, and presentation of audio programs. Prerequisite: MCOM 220.

226 - Video/Multimedia Planning and Design (3 S.H.)
An overview of the television/video and multimedia communication process with special attention to organizing, scripting, budgeting, equipment, and personnel. This course deals with essential pre-production planning.

232 - 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.

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.)
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 - Television Operations (3 S.H.)
Theory and practical experience in planning and creating television programs. Prerequisite: MCOM 226.

321 - Topics in Television (3 S.H.)
Advanced theory and practical experience in producing television programs. 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 - Interactive Media Production (3 S.H.)
Understanding and authoring multimedia and Internet communication messages for the mass media. Topics include equipment and software; selection, preparation, and programming of graphics, animation, sound and video; and specialized Internet communication in multimedia for the mass media. Prerequisites: MCOM 100 and MCOM 226.

* "Additional Requirements" course as defined in Item 3, page 19.

332 - News Gathering (3 S.H.)

Interviewing, observation, and research as information-gathering methodologies; with reporting assignments for publication and broadcast. Prerequisite: MCOM 232.

334 - Feature Writing (3 S.H.)

Developing, writing, and marketing feature stories to a variety of media. Prerequisite: MCOM 332.

336 - News Editing (3 S.H.)

Operation of the newsroom including copy editing, gatekeeper decisions, headline writing, layout. Prerequisite: MCOM 332.

340 - Public Relations Cases (3 S.H.)

Examination of public relations as applied in business, industry, government, trade, social services, labor, and other groups. The course teaches students about promotional and communications activities in the "real world." Prerequisite: MCOM 240.

345 - Public Relations Writing (3 S.H.)

Preparing news releases, scripts, employee publications, newsletters, print ads, brochures, websites, and other promotional materials. Prerequisite: MCOM 332.

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.

356 - Media and Society International (3 S.H.)

Involves study abroad. Designed to provide students with exposure to concepts and principles involved in understanding the interrelationship between the mass media and society in a country other than the United States. The course is similar in content to MCOM 100. In this case, however, the relationship being examined is specific to the country visited during that particular term.

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. Prerequisite: MCOM 260.

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, MCOM 226, and MCOM 320.

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 332.

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 232, MCOM 332, and MCOM 336.

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 - Assessment Portfolio (0 S.H.)

For this arranged class, each student completes an assessment portfolio to fulfill a graduation requirement.

MATHEMATICS AND STATISTICS

Gildemeister Hall, Room 322 (507) 457-5370

www.winona.edu/mathematics

Jeffrey Anderson (Chairperson)

FACULTY

Jeffrey Anderson, Professor; B.A., University of Minnesota, Morris; Ph.D., Iowa State University; 1992 -
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, Professor; B.S., M.S., University of Minnesota, Duluth; Ph.D., University of Minnesota-Twin Cities; 1992 -
Jeffrey Draskoci-Johnson, Associate Professor; B.A., Ohio Wesleyan University; M.S., Ph.D., Ohio State University-Columbus; 1996 -
Richard Jarvinen, Professor; B.A., St. John's University; M.A.T., Vanderbilt University; Ph.D., Syracuse University; 1989 -
Steven Leonhardi, Professor; B.A., Concordia College, Moorhead (MN); M.A., Ph.D., University of Wisconsin-Madison; 1996 -
Christopher Malone, Assistant Professor; B.S., Winona State University; M.S., Ph.D., Kansas State University; 2002 -
Felino G. Pascual, Professor; B.S., Ateneo de Manila, Philippines; M.Sc., Ph.D., University of Minnesota-Twin Cities; 1992 -
Barry Peratt, Associate Professor; B.S., Moravian College; M.S., Ph.D., University of Delaware; 1996 -
Terry M. Price, Associate Professor; B.S., M.S., Lamar University-Beaumont; Ph.D., Washington State University; 1998 -
Joyce Quella, Associate Professor; B.S., Winona State University; M.S., Ph.D., University of Illinois; 1987 -
Cheryl Quinn Nelson, Associate Professor; B.A., Luther College; M.S., Winona State University; 1986 -
Daniel Rand, Associate Professor; B.S., Purdue University; M.S., Ph.D., University of Minnesota-Twin Cities; 1998 -
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 -
Nicole Williams, Assistant Professor; B.S., University of Maine at Farmington; M.S., Illinois State; 2003 -

PURPOSE

The Department of Mathematics and Statistics offers major programs in mathematics, mathematics education, and statistics. The department also offers minor programs in mathematics, statistics, and mathematics education (secondary teaching). These programs are designed around a common, required departmental core of courses, which allows 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 with 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 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). In addition, students in the mathematics education program may choose to complete an additional major or minor program, which also grants licensure in those subjects. All these options may offer important advantages regarding employment.

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 fields such as the biological and earth sciences, business, economics, sociology, and psychology.

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. Major - Mathematics is specifically designed to address 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, students who earn a B.S. Major-Mathematics: Secondary Teaching will 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 continue to increase. In statistics, opportunities for professional employment exist in industry, medical research, government agencies, and several areas of business. Students who earn a B. S. Major - Mathematics: Statistics Option can also find future careers in actuarial science, quality control, or biostatistics.

- **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. See page 145 for suggested electives.
- **Quality Control.** There is a great need today for a work force proficient in the principles and practices of quality improvement. 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. See page 145 for a list of courses that help students prepare for certification examinations.
- **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. Students who earn a B.S. Major - Mathematics: Statistics Option are well-prepared for either an entry-level position or admission into a graduate school in biostatistics. See page 145 for suggested electives.

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 program 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 (P/NC) COURSES

The pass/no credit option is available to non-majors unless otherwise noted. 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.

Except for internships and practica, students must take all courses in their major, minor, options, concentrations and licensures on a grade-only basis. Courses offered on a pass/no credit-only or grade-only basis are so designated in the course descriptions.

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.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Mathematics and Statistics Department offers the following flag courses in the University Studies Program:

FLAG

MATHEMATICS

Oral

MATH 410 History of Mathematics (3)

Math/Critical Analysis

MATH 220 Combinatorics and Graph Theory (3)

MATH 260 Multivariable Calculus (4)

MATH 270 Differential Equation and Linear Algebra (4)

MATH 310 Number Theory (3)

Writing

MATH 330 Advanced Calculus I (4)

MATH 440 Abstract Algebra (4)

MATHEMATICS EDUCATION


Oral

MTED 420 Teaching Mathematics in the Secondary Schools II (3)

Math/Critical Analysis

MTED 125 Mathematics for Elementary Teachers (4)

* "Additional Requirements" course as defined in Item 3, page 19.

- MTED 322 Modern Geometry (4)
Writing  MTED 320 Teaching Mathematics in the Secondary Schools I (3)

STATISTICS

Oral

- STAT 415 Multivariate Analysis (3)
 STAT 425 Modern Methods of Data Analysis (3)

Math/Critical Analysis

- STAT 255 Data Management Using SAS (3)
 STAT 320 Statistical Quality Control (3)


Writing

- STAT 450 Introduction to Mathematical Statistics I (3)
 STAT 460 Introduction to Mathematical Statistics II (3)


Flag courses that can be used to satisfy Mathematics and Statistics major/minor requirements are identified in the lists of required courses and electives in this section.

DEPARTMENTAL CORE (25-26 S.H.)

Techniques of Continuous Mathematics (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 Foundations of Mathematics (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 (MATH)

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 electives, which are designed to complement another major or minor, prepare for future graduate work, or provide coursework that is specific to the needs of industry.



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 that 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.)

With the advisor's approval, students may use an additional elective course to substitute for MATH 220. Mathematics majors are strongly advised to select MATH 270 (Differential Equations and Linear Algebra).

MATHEMATICS (8 S.H.)

-  MATH 330 Advanced Calculus I (4)
 MATH 440 Abstract Algebra (4)

ELECTIVES (5 S.H.)

Choose 5 S. H. of elective coursework from courses numbered MATH 310 and above or STAT 320 and above.

B.S. MAJOR - MATHEMATICS: SECONDARY TEACHING (MTST)

54-55 S.H. (No Minor Required)

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. Therefore, 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 "Additional Coursework" below. 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. Complete all courses required for the major.
2. Earn a grade of "C" or better and achieve a minimum of 2.75 GPA in all MATH, MTED, and STAT courses required for the major.
3. Meet the requirements of the College of Education. MTED 320 and MTED 420 must be completed prior to student teaching.





Additional Graduation Requirements

For a checklist of the University's graduation requirements, see page 22.




DEPARTMENTAL CORE (25-26 S.H.)

REQUIRED COURSES (26 S.H.)

Mathematics (14 S.H.)

-  MATH 310 Number Theory (3)
 MATH 330 Advanced Calculus I (4)
 MATH 410 History of Mathematics (3)
 MATH 440 Abstract Algebra (4)

Mathematics Education (11 S.H.)

-  MTED 320 Teaching Math in the Secondary Schools I (3)
 MTED 322 Modern Geometry (4)
 MTED 420 Teaching Math in the Secondary Schools II (3)
 MTED 421 Middle School Methods in Mathematics (1)

Statistics (1 S.H.)





- STAT 115 Laboratory in Statistics (1)

ELECTIVES (3 S.H.)

In consultation with an advisor, students should choose from courses numbered MATH 310 and above or STAT 320 and above.

ADDITIONAL COURSEWORK (38 S.H.)

Students in the Mathematics: Secondary Teaching major must also complete the courses listed below:

- I. The Professional Education Sequence (32 S.H.) in the College of Education:
 - * EDUC 305 Human Development and Learning (4)
 - EDUC 308 Human Relations and Student Diversity (3)
 -  EDUC 312 Instructional Planning and Assessment: Secondary (3)
 - EDUC 429 Secondary Reading and Teaching Strategies (4)
 -  EDUC 449 Middle Level Philosophy, Organization and Interdisciplinary Planning (3)
 -  EDUC 459 The Professional Educator (3)
 -  EDUC 465 Student Teaching (12-16)
- II. HERS 204 Personal and Community Health (3) (Also fulfills University Studies, Basic Skills, Physical Development and Wellness requirement (See page 19.)
- III. * SPED 400 Education of Exceptional Children/Youth (3) (Also partially fulfills University Studies, Arts & Sciences Core, Social Science requirement (See page 19.)

B.S. MAJOR - MATHEMATICS: STATISTICS OPTION (MTST)

55-56 S.H. (No Minor Required)

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 major. 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

- STAT 115 Laboratory in Statistics (1)
- STAT 360 Regression Analysis (3)
- ☞ STAT 450 Introduction to Mathematical Statistics I (3)
- ☞ STAT 460 Introduction to Mathematical Statistics II (3)

Three of the following six courses:

- STAT 350 Design of Sample & Surveys (3)
- STAT 355 Nonparametric Statistics (3)
- STAT 365 Experimental Design & Analysis (3) OR STAT 321 Industrial Design of Experiments (3)
- STAT 405 Biostatistics (3)
- ☞ STAT 415 Multivariate Analysis (3)
- ☞ STAT 425 Modern Methods of Data Analysis (3)

ELECTIVES (11 S.H.)

In consultation with an advisor, students should choose courses numbered MATH 310 and above or STAT 320 and above. Students may also choose classes with a significant mathematical/statistical component offered outside the department; however, the courses must be approved by the Department of Mathematics and Statistics. Students may count one of the following Computer Science courses as an elective:

- CS 231 FORTRAN for Engineering and Science (3)
- CS 234 Algorithms and Problem Solving I (4)
- CS 250 Algorithms and Problem Solving II (4)
- CS 298 UNIX and C Programming (3)
- CS 368 Introduction to Bioinformatics (3)
- CS 385 Applied Database Management Systems (3)

Students may also count STAT 255 and FIN 335 as electives.

Actuarial Science

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. WSU offers the following courses that will prepare students for the first exam on Probability (SOA Exam P1).

- MATH 160, 165, 220, and 260
- STAT 210, 450

Actuaries are also required to be certified in three key subject areas through their college coursework that are not covered on the SOA examinations. This certification is called Validation through Educational Experience (VEE). Subject areas and courses for VEE certification are listed below.

- VEE Economics
 - ECON 201 Principles of Microeconomics (3)
 - ECON 202 Principles of Macroeconomics (3)
- VEE Applied Statistical Methods
 - STAT 360 Regression Analysis (3)
 - FIN 335 Forecasting Methods (3)
- VEE Corporate Finance
 - FIN 360 Corporate Finance (3)
 - FIN 377 Investments (3)

Quality Control

Mathematics/Statistics majors 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. The Department of Mathematics and Statistics offers the following courses to help students prepare for certification examinations:

- Mechanical Inspector: STAT 110 or 210 or 303, STAT 320
- Quality Technician: STAT 110 or 210 or 303, STAT 320
- Quality Auditor: STAT 110 or 210 or 303, STAT 320
- Software Quality Engineer: STAT 110 or 210 or 303, STAT 320
- Quality Improvement Associate: STAT 110 or 210 or 303, STAT 320, STAT 321
- Quality Engineer: STAT 110 or 210 or 303, STAT 320-322
- Six Sigma Black Belt: STAT 110 or 210 or 303, STAT 320-322
- Quality Manager: STAT 110 or 210 or 303, STAT 320, STAT 350
- Reliability Engineer: MATH 140 or 160, 220, STAT 110 or 210 or 303, STAT 320-322

Biostatistics

It is recommended that students interested in biostatistics take some biology and health science courses and the following department offerings:

- STAT 405 Biostatistics (3)
- ☞ STAT 255 Data Management Using SAS (3)

B.A. MINOR - MATHEMATICS (MATH)

22-23 S.H.

The Departmental Core (minus MATH 220) is the B.A. minor in mathematics.

B.S. MINOR - MATHEMATICS: EDUCATION OPTION (MTED)†

26 S.H.

REQUIRED COURSES (26 S.H.)

Mathematics (15 S.H.)

- MATH 130 Matrix Algebra (3)
- MATH 160, 165 Calculus I, II (8)
- MATH 210 Foundations of Mathematics (4)

Mathematics Education (8 S.H.)

- ☞ MTED 320 Teaching Mathematics in the Secondary Schools (3)
- ☞ MTED 322 Modern Geometry (4)
- MTED 421 Middle School Methods in Mathematics (1)

Statistics (3 S.H.)

- STAT 210 Statistics (3)

† The State of Minnesota no longer issues teaching licenses for Bachelor of Science minors. However, this minor may provide the opportunity to teach mathematics outside the State of Minnesota.

B.S. MINOR - MATHEMATICS: STATISTICS OPTION (MTST)

21-23 S.H.

Either teaching or non-teaching degree candidates may take the B.S. minor in statistics option; however, this is not a certifiable minor for teaching.

REQUIRED COURSES (15-17 S.H.)

Mathematics (6-8 S.H.)

- MATH 130 Matrix Algebra (3) OR
- ☞ MATH 270 Differential Equations and Linear Algebra (4)
- MATH 140 Applied Calculus (3) OR
- MATH 155 Calculus Based Modeling (3) OR
- MATH 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
- ☞ BUSA 220 Business Statistics (3) OR
- ☞ PSY 231 Statistics (3)

Two of the following six courses (6 S.H.):

- STAT 350 Design of Samples and Surveys (3)
- STAT 355 Nonparametric Statistics (3)
- STAT 360 Regression Analysis (3)
- STAT 365 Experimental Design and Analysis (3) OR STAT 321 Industrial Design of Experiments I (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 321 Industrial Design of Experiments I (3)
- ‡ STAT 350 Design of Sample and Surveys (3)
- ‡ STAT 355 Nonparametric Statistics (3)
- ‡ STAT 360 Regression Analysis (3)
- ‡ STAT 365 Experimental Design and Analysis (3)
- STAT 405 Biostatistics (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
* "Additional Requirements" course as defined in Item 3, page 19.

Group II - Application Areas

Select up to 3 S.H. from the following courses:

- Biology: BIOL 310 (3), 312 (3)
- Computer Science: CS 231 (3), 234 (3), 298 (3)
- Economics: ECON 304 (3), 450 (3)
- Finance: FIN 335 (3), 360 (3), 423 (3)
- Health, Exercise and Rehabilitative Sciences: HERS 403 (3)
- Marketing: MKTG 320 (6)
- Mathematics: MATH 340 (3), 420 (3), 430 (3), 435 (3)
- Nursing: NURS 375 (3)
- Physics: PHYS 345 (3)
- Political Science: POLS 410 (3)
- Psychology: PSY 308 (5), 350 (3)
- Sociology: SOC 376 (3)
- Statistics: 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)

COURSE DESCRIPTIONS

All courses are offered every semester unless indicated differently.

MATHEMATICS (MATH)

050 - Intermediate Algebra (3 S.H.)

A review of intermediate algebra topics designed to prepare the student for college-level mathematics. MATH 050 is a non-degree credit course and will not count toward meeting minimum total credit requirements for graduation. P/NC only.

100 - Survey of Mathematics (3 S.H.)

Study of networking, probability, statistical inference, and logic designed to illustrate the connection between contemporary mathematics and modern society. Grade only. Prerequisite: Qualifying score on the mathematics placement exam or MATH 050. Note: This course fulfills certain Board of Teaching (BOT) requirements for Education majors.

110 - Finite Mathematics (3 S.H.)

Applications of matrices, linear programming, probability, and the mathematics of finance 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.)

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.)

An introduction to matrix algebra and elementary vector spaces with an emphasis on computation. Prerequisite: MATH 120

140 - Applied Calculus (3 S.H.)

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-Modeling using Precalculus and Statistics, 155-Calculus Based Modeling (3 S.H. Each)

A two-semester sequence designed for earth- and life-science majors to develop their algebraic, trigonometric, statistical, and calculus skills through modeling applications. Prerequisite for MATH 150: Qualifying score on the mathematics placement exam or MATH 050. Prerequisite for MATH 155: MATH 150.

160, 165 - Calculus I, II (4 S.H. Each)

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.)

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.)

Provides students with increased ability with topics of Calculus I as these are required in the development of Calculus II. Instruction is given in applying the methods of calculus to new material as introduced in the second semester of calculus. Prerequisite: Concurrent enrollment in instructor's section of MATH 165 or instructor's permission.

210 - Foundations of Mathematics (4 S.H.)

Introductory discrete mathematics including symbolic logic, elementary number theory, sequences, sets, relations, functions, and recursion. 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 on the Calculus Readiness Mathematics Placement Exam. Offered each semester.

260 - Multivariable Calculus (4 S.H.)

A continuation of MATH 165. Partial differentiation and multiple integration are studied. Prerequisite: MATH 165.

270 - Differential Equations and Linear Algebra (4 S.H.)

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.)

Exposure to lower-division mathematical topics not included in other courses. Prerequisite: Determined by topics. Offered on demand.

310 - Number Theory (3 S.H.)

A study of primes, divisibility, congruences, number-theoretic functions, and diophantine equations. Prerequisite: MATH 165 and MATH 210. Offered spring semester.

315 - Chaos Theory (3 S.H.)

An introduction to chaos theory and fractal geometry. Topics will include bifurcations, Julia sets, the Mandelbrot set, fractal geometry, iterated function systems, and a survey of the applications of this theory to a variety of disciplines. Prerequisite: MATH 160. Offered spring semester.

320 - Theory of Functions of a Complex Variable (3 S.H.)

The calculus of functions of a complex variable including differentiability, analyticity, and integration. Additional topics include the residue theorem. Prerequisite: MATH 260. Offered on demand.

330, 335 - Advanced Calculus I, II (4 S.H. Each)

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.)

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 or MATH 270 or instructor's permission. Strongly recommended: Completion of MATH 160 and MATH 165 prior to enrollment. Offered alternate spring semesters (next offered Spring 2008).

410 - History of Mathematics (3 S.H.)

General view of the historical development of the elementary branches of mathematics. Prerequisites: MATH 160 and MATH 210. Offered spring semester.

420 - Numerical Analysis (4 S.H.)

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 fall semesters (next offered Fall 2007).

430 - Operations Research: Linear Programming (3 S.H.)

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 (next offered Fall 2006).

435 - Operations Research: Modeling (3 S.H.)

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.)

Axiomatic development of groups, rings, and fields. Prerequisite: MATH 210. Offered fall semester.

450 - Introduction to Topology (3 S.H.)

A study of indexed families of sets, mappings, diagrams, continuity,

neighborhoods, limit points, open and closed sets. Prerequisites: MATH 165 and MATH 210. Offered on demand.

460 - Real Analysis (3 S.H.)

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. Prerequisite: MATH 330. Offered on demand.

470 - Math Projects (1-4 S.H.)

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.)

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 (MTED)

125 - Mathematics for Elementary Teachers (4 S.H.)

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.)

Study of additional mathematical topics essential to mathematics in the elementary and middle school grades including Euclidean geometry. Prerequisite: MTED 125.

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. (Approximately 30 additional hours.) Prerequisites: MATH 165, MATH 210 and EDUC 305. Offered spring semester.

322 - Modern Geometry (4 S.H.)

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 incorporated 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. A public presentation and field experience are required. Prerequisite: MTED 320. Offered fall semester.

421 - Middle School Methods in Mathematics (1 S.H.)

Organization and methods of teaching mathematics in the middle school, including a ten-hour field experience. Prerequisite: MATH 210 or MTED 125.

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 (STAT)

110 - Fundamentals of Statistics (3 S.H.)

Introductory statistics with emphasis on applications. Note: Students in certain majors 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.)

This course will provide experience in collecting data, analyzing data, and writing statistical reports. Students will study statistical concepts through activities and projects which involve collecting and analyzing 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.)

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. Prerequisite: STAT 110 or equivalent. 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. Note: 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 120 or MATH 150 or instructor's permission. Note: MATH 305 cannot be used as a MATH or STAT elective for mathematics, mathematics education, or statistics majors.

310 - Intermediate Statistics (3 S.H.)

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.)

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.)

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 on demand.

350 - Design of Samples and Surveys (3 S.H.)

Practical problems of surveys. Design of optimal surveys. Questionnaire design. Practical problems of sampling. Design of optimal sampling procedures. Adapting standard statistical techniques to specialized sampling design. Prerequisites: An introductory statistics course (preferably STAT 210) and MATH 120. Offered fall semester.

355 - Nonparametric Statistics (3 S.H.)

Statistical methods based on runs, the empirical distribution function and ranks. Topics will include one and two sample tests, ANOVA, goodness of fit tests, rank regression, correlation, and confidence intervals. Both applications and theory emphasized. Prerequisite: STAT 110 or STAT 210. Offered on demand.

* "Additional Requirements" course as defined in Item 3, page 19.

360 - Regression Analysis (3 S.H.)

Simple linear regression, multiple regression, hypothesis testing, analysis of residuals, stepwise regression. Interpretation of computer output will be emphasized. Prerequisites: An introductory statistics course (preferably STAT 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.)

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.

405 - Biostatistics (3 S.H.)

This course will give students an overview of Biostatistics. The topics to be covered include contingency tables analysis, relative risk, odds ratios, partial association, Cochran-Mantel-Haenszel methods, two-way ANOVA, interactions, repeated measures, logistic regression, Poisson regression, Kaplan-Meier methods, and Cox proportional hazards models. Parametric methods and various nonparametric alternatives will be discussed. Prerequisites: An introductory statistics course (preferably STAT 210 or STAT 305). Offered alternate fall semesters.

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.)

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.)

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 on demand.

450, 460 - Introduction to Mathematical Statistics I, II (3 S.H. Each)

A mathematical approach to probability and statistics. Prerequisite: MATH 260 and completion of or concurrent enrollment in MATH 220. Offered yearly as a fall/spring sequence.

455 - Stochastic Processes (3 S.H.)

An introduction to stochastic processes. Topics will include underlying probability theory, random variables, conditioning, Markov chains, exponential distribution, and Poisson processes. Both applications and theory will be emphasized. Prerequisite: STAT 450. Offered on demand.

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. P/NC only. Offered on demand.

MEDICAL TECHNOLOGY

Pasteur Hall (507-457-2993, 507-457-5462)

http://bio.winona.edu/biohp/acad_deg.htm

WSU DIRECTORS, MEDICAL TECHNOLOGY

Dr. Judith A. Loewen, B.S., University of Minnesota, Minneapolis; University of Minnesota, Medical School, Board Certified-Infectious Diseases

Specialist; M.S., University of Wisconsin, Eau Claire; Ph.D., Mayo Graduate School of Medicine, Rochester, MN

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

ADJUNCT FACULTY

Note: ASCP = American Society of Clinical Pathologists

Community Memorial Hospital, Winona, Minnesota

William McNeil, MD, Medical Director

†**Edward Hines Jr. VA Hospital, Hines, Illinois**

Myron E. Rubnitz, MD, Medical Director

Donna M. Wray, MT (ASCP), Program Director

†**Hennepin County Medical Center, Minneapolis, Minnesota**

John T. Crosson, MD, Pathologist, Medical Director

Robin Montegomery, MSED, MT (ASCP), SBB, Program Director

†**Marshfield Clinic, Marshfield, Wisconsin**

Julie Seehafer, MT (ASCP), Program Director

†**Mercy Hospital Medical Center, Des Moines, Iowa**

Vijaya Dhannavada, MD Medical Director

Kyla Diebler, MT (ASCP), Program Director

†**Sacred Heart Hospital, Eau Claire, Wisconsin**

Thomas Hadely, MD, Pathologist, Medical Director

Richard Miley, MT (ASCP), Program Director

†**University of North Dakota, Grand Forks, North Dakota**

Ruth Paur, MS, MT (ASCP), CLS, (NCA), Program Director

Mary Ann Sens, MD, PhD, Professor and Chairman

†Schools with which WSU has affiliated internship programs

CAREER OPPORTUNITIES AND REQUIREMENTS

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 a 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.

It should be noted that acceptance into the fourth year of training is not automatic upon completion of the third year at WSU. Entry into the clinical phase of study is competitive. Candidates are more likely to be selected if they complete the course of study outlined below with a minimum GPA of 3.0 (on a 4.0 scale). Affiliated institutions select students on the basis of academic achievement and their potential as medical technologists. The latter is determined through a personal interview with appropriate officials at approved schools of medical technology. Final approval is decided by clinical admission boards. Students accepting an invitation for clinical training in medical technology from an approved institution will complete the training required for graduation at that institution. WSU will assess tuition on a semester basis, 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, as determined by the clinical affiliate, 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 a program director prior to registration. All student programs (schedules) must be approved each semester by a Director of Medical Technology. To complete this program within 4 years, students must take 17 to 19 credits per semester. Some students opt for a slower pace by completing their WSU courses in four years, followed by clinical studies during their fifth year.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Biology Department offers the following flag courses in the University Studies Program:

FLAG

Oral 🗣️

- BIOL 307 Cell Biology Laboratory (1)
- BIOL 309 Developmental Biology (3)
- BIOL 315 Environmental Biology (3)
- BIOL 409 General Microbiology (4)
- BIOL 423 Ecosystem Ecology (3)
- BIOL 460 General Parasitology (3)
- BIOL 462 Parasitology (4)

Math/Critical Analysis 📖

- BIOL 310 Genetics (3)
- BIOL 499 Student Research (3)

Writing 📝

- BIOL 308 Cell Biology (3)
- BIOL 323 General Physiology (5)
- BIOL 415 Ecology of Large Rivers (4)
- BIOL 431 Molecular Biology Lab (4)
- BIOL 445 Immunology (3)

Flag courses that can be used to satisfy Medical Technology major requirements are identified in the lists of required courses and electives in this section.

B.S. MAJOR - MEDICAL TECHNOLOGY (MEDT)

REQUIRED COURSES (124 - 126 S.H.)

UNIVERSITY STUDIES COURSES (30 S.H.)

Note: When this catalog went to print, the interrelationships between the requirements of the University Studies Program and the requirements of the medical technology major were not fully established. A number of courses required by the medical technology major also satisfy requirements of the University Studies Program. Students should consult with their academic advisor for more information.

MAJOR AREA COURSES (30-32 S.H.)

Required Biology (BIOL) Courses (25 S.H.)

- 241 Basics of Life (4)
- 242 Organismal Diversity (4)
- 📖 308 Cell Biology (3)
- 🗣️ 307 Cell Biology Lab (1)
- 🗣️ 409 General Microbiology (4)

- 443 Urinalysis (1)
- 444 Immunochemistry and Hematology (2)
- 📖 445 Immunology (3)
- 🗣️ 460 Parasitology (3)

Note: BIOL 241 and 242 should be taken prior to BIOL 308 and BIOL 307.

MAJOR ELECTIVES (5-7 S.H.)

Biology

- 📖 BIOL 310 Genetics (3)
- BIOL 201 Human Anatomy (4)
- 📖 BIOL 323 General Physiology (5)

Statistics

- STAT 305 Biometry (4) (Required by Sacred Heart)

ADDITIONAL REQUIREMENTS (32-34 S.H.)

Chemistry (16 S.H.)

- * CHEM 212 Principles of Chemistry I (4)
- * CHEM 213 Principles of Chemistry II (4)
- CHEM 340 Organic Chemistry (4) OR 350 Principles of Organic Chemistry I (4)
- CHEM 400 Biochemistry (4) (Required by Hennepin County) OR
- CHEM 425 Analytical Chemistry I (4) OR CHEM 426 Analytical Chemistry II (4)

Mathematics (4-6 S.H.)

- MATH 120 Precalculus, Functions & Graphs (4) OR
- MATH 150 Modeling Using Precalculus and Statistics (3)
- MATH 155 Calculus Based Modeling (3)

Physics (8 S.H.)

- * PHYS 201 General Physics I (4)
 - PHYS 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)

www.winona.edu/music

James Hoch (Chairperson)

FACULTY

Suzanne Rhodes Draayer, Professor; B.M., Furman University; M.S., George Peabody College of Vanderbilt University; D.M.A., University of Maryland College Park; 1993 -

James S. Hoch, Professor; B.M., University of the Pacific, Stockton (CA); M.M., D.M.A., University of Colorado; 1992 -

Donald Lovejoy, Associate Professor; B.S., Asbury College; M.M., University of Regina; M.M., Northwestern University; D.M.A., University of Wisconsin-Madison; 2000 -

R. Richard MacDonald, Professor; B.M., M.M.E., University of North Texas; D.A., University of Northern Colorado; 1996 -

Harry Mechell, Professor; B.Mus., M.M., Temple University; D.M.A., University of Illinois; 1989 -

Deanne Mohr, Assistant Professor; B. Mus., University of Regina; M. Mus.; Universite de Montreal; D.M.A., Universite de Montreal; 2002 -

Catherine Schmidt, Professor; B.S., M.S., University of Illinois, Urbana; Ph.D., University of Wisconsin-Madison; 1991 -

Paul Vance, Professor; B.A., Moorhead State University; M.M., University of Wisconsin-Milwaukee; D.M.A., University of Michigan; 1996 -

PURPOSE

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, the department offers a program leading to a minor as well as a variety of courses and activities for the general student. Musical organizations are open to all students. The department also offers private study of instruments and voice for credit with members of the music faculty. WSU is an accredited institutional member of the National Association of Schools of Music.

* "Additional Requirements" course as defined in Item 3, page 19.

PRIVATE INSTRUCTION

The courses denoted as "Private Instruction" in the program requirements may be repeated at various levels of instruction. Students must pass an audition to be permitted to enroll in courses designated as "Private Instruction."

PASS/NO CREDIT (P/NC) COURSES

Except for the internship, students must take all courses in the major or minor on a grade-only basis. The P/NC option is available to non-majors unless otherwise noted. Courses offered on a pass/no credit-only or grade-only basis are so designated in the course descriptions.

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. (For a checklist of the University graduation requirements, see page 22.)
- Students majoring in music education (teaching) must have a 2.75 overall GPA and a 2.75 GPA in the major.
- All music majors must participate in the large ensemble related to their major performing medium each semester they are enrolled as music majors. The major performing ensemble for wind and percussion players is MUS 241 (Symphonic Wind Ensemble); the major performing ensemble for string players is MUS 242 (Orchestra); and the major performing ensemble for vocalists is MUS 243 (Concert Choir). Piano and Guitar majors should work with their advisor to determine the appropriate ensemble for their program, skills, and interests.
- All majors are required to register for Concert Attendance (MUS 001) each semester-maximum 8 semesters. Minors are required to complete 4 semesters of MUS 001, Concert Attendance.

PIANO PROFICIENCY EXAMINATION

All music majors must pass a piano proficiency examination. Students may enroll in piano classes to help prepare for passing the proficiency examination; however, these piano classes do not count towards a degree.

ENTRANCE 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.)

ADMISSION REQUIREMENTS FOR MAJORS

All incoming students who wish to major in music must perform an audition, successfully complete entrance examinations in theory and aural skills, and have a personal interview with professors in their major field.

Students will receive a letter confirming their status. If admitted, the student will enter either as a music major or as a major with probationary status. (Admission status is at the discretion of performing area full-time faculty and is dependent upon having sufficient room available in the applied studio.)

Students electing a performance major (B.A. Performance) must pass a performance review at the end of the first year to receive full acceptance into the performance degree program. Methods of assessment include juries, recitals, and written examinations.

ADMISSION REQUIREMENTS FOR MINORS

All incoming students who wish to minor in music must perform an audition and successfully complete entrance examinations in theory and aural skills. Students will receive a letter confirming their status. If admitted, the student will enter either as a music minor or as a minor with probationary status. (Admission status is at the discretion of performing area full-time faculty and is dependent upon having sufficient room available in the applied studio.)

THEORY ENTRANCE AND PLACEMENT EXAMINATION

To register for MUS 201, Theory I, new music majors and minors must pass an entrance examination on basic music notation including note values, note names, and key signatures. Students who do not meet the minimum requirements for MUS 201 may register for MUS 120, Introduction to Music Theory. A theory placement exam is required for those students requesting advanced placement in the theory sequence. The exam is offered prior to the beginning of the 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.

DEPARTMENT OF MUSIC RETENTION POLICIES

1. Music majors and minors may enroll in each music theory, music history, or music methods course twice only (see listed course numbers below). A third time may be granted on appeal to the music faculty.
2. Declared (probationary) music majors and minors must attain 100-level lessons no later than the end of their third semester. After that time, registration as a major or minor will be denied.
3. Music majors and minors may enroll in each level of lessons for a maximum of three semesters. After that time, registration as a major or minor will be denied.
4. Music majors must satisfactorily complete both the theory sequence and the piano proficiency by the end of the third year of classes taken as an admitted WSU music major.
5. Students seeking to transfer to WSU as a music major or minor must:
 - Perform an entrance audition to determine level of lesson registration
 - Take a music theory and aural skills assessment exam to determine skill level (regardless of whether theory credits are transferred)
 - Take a music history assessment exam to determine level of knowledge (only if music history credits are transferred)
 - Complete a minimum of one year of applied study at WSU at the level required for the individual degree program
 - Complete a minimum of one year in the large ensemble appropriate to the performance medium at WSU and satisfy ensemble requirements as stated in the WSU catalog
 - Perform all recitals required for the degree program at WSU (after at least one year of study with a WSU instructor)


UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Department of Music offers the following flag courses in the University Studies Program:

FLAG

Oral

- MUS 440 American Art Music (3)
- MUS 471 Survey of Vocal Literature I (Italian) (2)
- MUS 472 Survey of Vocal Literature II (German) (2)

- MUS 473 Survey of Vocal Literature III (French) (2)
 MUS 475 Survey of Instrumental Literature and Styles (3)
 MUS 477 Piano Literature I (2)
 MUS 478 Piano Literature II (2)
Math/Critical Analysis 
 MUS 402 Form and Analysis (3)

Writing 



- MUS 351 Music of the Middle Ages, Renaissance and Baroque (3)
 MUS 352 Music of the Classical Period, 19th and 20th Centuries (3)

Flag courses that can be used to satisfy Music major/minor requirements are identified in the lists of required courses and electives in this section.





B.A. MAJOR - MUSIC (LIBERAL ARTS)(MUSL)

50-51 S.H. (No Minor Required)

CORE REQUIREMENTS - MUS (25 S.H.)

- 001 Concert Attendance (0)
 114 World Music (3)
 201, 202 Music Theory I, II (8)
 203, 204 Music Theory III, IV (8)
 351 Music of the Middle Ages, Renaissance, Baroque (3)
 352 Music of the Classical Period, 19th and 20th Centuries (3)

REQUIRED COURSES (20-21 S.H.)

- 109 Introduction to Music (3)
 440 American Art Music (3)
 Choose from the following Literature courses (2-3):
 475 Instrumental Literature & Styles (3)
 471, 472, 473 Vocal Literature Class (2)
 477 Piano Literature I (2)

Major Performing Large Ensemble (4): Choose one: 241, 242, 243 (See Note 1 below.)

Applied Lessons in Primary Performance Medium (8) (See Note 2 below.)

Music (Liberal Arts) Notes:

- All credits must be taken in the large ensemble related to major performing medium.
- Students must enroll in a minimum of 4 semesters of applied lessons, and they must pass the 260 series level requirements in applied lessons to graduate.

CAPSTONE PROJECT (2 S.H.)

- 491 Independent Study (2)

ELECTIVES (3 S.H.)

Electives must be taken from the areas of theory, history, and literature. MUS 109 and 120 do not fulfill elective requirements. (Suggested course: MUS 402, Form and Analysis, to fulfill Critical Analysis Flag requirement.)

PIANO PROFICIENCY

See above for information concerning piano proficiency.



B.A. MAJOR - MUSIC PERFORMANCE (MUSP)

85-86 S.H. (No Minor Required)


ADMISSION TO THE MAJOR

To be admitted into the Performance degree program, students must make a formal application and pass an audition before a faculty committee after their first year.

CORE REQUIREMENTS (25 S.H.)

- 001 Concert Attendance (0)
 114 World Music (3)
 201, 202 Music Theory I, II (8)
 203, 204 Music Theory III, IV (8)
 351 Music of the Middle Ages, Renaissance, Baroque (3)
 352 Music of the Classical Period, 19th and 20th Centuries (3)

REQUIRED COURSES (54-55 S.H.)

- 110 Introduction to Music (3)
 306 Conducting (2)
 440 American Art Music (3)
 480 Junior and Senior Recital (3)

Applied Lessons in Primary Performance Medium (28) (See Note 3 below.)

Major Performing Large Ensemble (8)



Choose one: 241, 242, 243 (See Note 4 below.)

Pedagogy & Literature (7-8)**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)
 477 Piano Literature I (2)
 478 Piano Literature II (2)
 337 Accompanying (1-2)

Instrumental Performance Major

- 255 Jazz Improvisation (2)
 475 Instrumental Literature & Styles (3)

Choose two of the following four courses (See Note 5 below):

- 311 Woodwind Methods I (1)
 312 String Methods I (1)
 313 Percussion Methods I (1)
 314 Brass Methods I (1)

Music Performance Notes:

- Student must enroll in a minimum of 8 semesters of applied lessons.
- Credits must all be taken in the large ensemble related to major performing medium.
- One of the two methods courses required for the instrumental performance major must be in the student's primary performance medium.

ADDITIONAL REQUIREMENTS

- Piano proficiency. See page 150 for information concerning the piano proficiency examination.
- Participation in small chamber ensemble required.

ELECTIVES (6 S.H.)

Electives must be taken from areas of theory, history, and literature. MUS 120 does not fulfill elective requirements. (Suggested course: MUS 402 Form and Analysis to fulfill Critical Analysis Flag requirement.)

B.S. MAJOR - MUSIC EDUCATION (Teaching) (MUSI; MUSV)

142 S.H. (Total S.H. includes all University Studies 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.

UNIVERSITY STUDIES PROGRAM (23 S.H.)**Basic Skills (10 S.H.)**

- ENG 111 College Reading and Writing (4)
 CMST 191 Introduction to Public Speaking (3)
 Mathematics (3)
 Physical Development and Wellness (fulfilled by HERS 204) (0)



Arts and Sciences Core (10 S.H.)

- Humanities (3 credits fulfilled by ART 109, 221, 222, or 224) (3)
 Natural Science (7)
 Social Science (fulfilled by SPED 400 and EDUC 305) (0)
 Fine and Performing Arts (fulfilled by THAD 131) (0)

Unity and Diversity (3 S.H.)

- Critical Analysis (fulfilled by MUS 203) (0)
 Science and Social Policy (3)
 Global or Multicultural Perspectives (fulfilled by EDUC 308) (0)
 Contemporary Citizenship or Democratic Institutions (fulfilled by MUS 298) (0)

CORE REQUIREMENTS (25 S.H.)

- 001 Concert Attendance (0)
 114 World Music (3)
 201, 202 Music Theory I, II (8)
 203, 204 Music Theory III, IV (8)
 351 Music of the Middle Ages, Renaissance and Baroque (3)
 352 Music of the Classical Period, 19th and 20th Centuries (3)

* "Additional Requirements" course as defined in Item 3, page 19.

REQUIRED COURSES: BOTH VOCAL AND INSTRUMENTAL LICENSURES (37 S.H.)

- 002 Music Education Seminar (0) **Note:** Must enroll every semester except when student teaching.
 - 255 Jazz Improvisation I (2)
 - 301 Orchestration and Instrumentation (2)
 - 306 Conducting I (2)
 - 406 Conducting II (1)
 - 298 Foundations and Principles of Music Education (3)
 - 322 Elementary Music Methods I (3)
 - 332 Elementary Music Methods II (2)
 - 323 Secondary Music Methods (3)
 - 480 Recital (1)
- Major Performing Large Ensemble (6)
Choose one: 241, 242, or 243 (See Note 6 below.)
Private Instruction in Major Applied Field (12) (See Note 7 below.)

Music Education Notes:

6. Credits must all be taken in the large ensemble related to major performing medium.
7. Students must enroll in a minimum of 6 semesters of applied lessons.

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 and Marching Band Techniques (2)

ADDITIONAL REQUIREMENTS FOR VOCAL MAJORS (12 S.H.)

- 415 Vocal Pedagogy (2)
 - 422 Music Seminar on Choral Techniques & Materials (2)
- Private Instruction in Minor Applied Field (6)**
(Substitution of up to 2 credits of 337 permitted; substitution of up to 2 credits of 335 permitted.)
Choose two of the following four courses (2):
- 311 Woodwind Methods (1)
 - 312 String Methods (1)
 - 313 Percussion Methods (1)
 - 314 Brass Methods (1)

OTHER REQUIRED COURSES (INSTRUMENTAL AND VOCAL LICENSURES)

- (13 S.H.)
- * THAD 131 Performance I for Everyone (3)
 - HERS 204 Personal and Community Health (3)
 - * SPED 400 Education of Exceptional Children/Youth (3)

Choose one of the following four courses (3):

- ART 109 Introduction to Art (3)
- ART 221 Art History I (3)
- ART 222 Art History II (3)
- ART 224 American Art (3)

Choose one of the following two courses:

- * THAD 155 Modern Dance I (1)
- * THAD 153 Jazz Dance I (1)

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: Secondary (3)
- EDUC 429 Secondary Reading and Teaching Strategies (4)
- EDUC 449 Middle Level Philosophy, Organization and Planning (3)
- EDUC 459 The Professional Educator (3)
- EDUC 465 Student Teaching (12-16)

OTHER REQUIREMENTS

In addition to the above course requirements, all students must:

- Pass a piano proficiency examination (see page 150 for more information).
- Pass a guitar proficiency examination.
- Participate in small ensemble performance.

- Attend a specified proportion of music education workshops/seminars yearly.
- Pass Music Education Seminar (MUS 002) each semester they are enrolled as music education majors except when student teaching.

B.S. MAJOR - MUSIC (MUSIC BUSINESS) (MUBU)

95-96 S.H. (No Minor Required)

CORE REQUIREMENTS (25 S.H.)

- 001 Concert Attendance (0)
- 114 World Music (3)
- 201, 202 Music Theory I, II (8)
- 203, 204 Music Theory III, IV (8)
- 351 Music of the Middle Ages, Renaissance, and Baroque (3)
- 352 Music of the Classical Period, 19th and 20th Centuries (3)

REQUIRED COURSES (33-34 S.H.)

- 107 Music Technology (3)
 - 108 Audio Production (3)
 - 109 Introduction to Music (3)
 - 440 American Art Music (3)
- Select 4 credits from the following courses:
- 301 Orchestration and Instrumentation (2)
 - 306 Conducting (2)
 - 311 Woodwind Methods (1)
 - 312 String Methods (1)
 - 313 Percussion Methods (1)
 - 314 Brass Methods (1)

Major Performing Large Ensemble (4):

Choose one: 241, 242, 243 (See Note 8 below)

Applied Lessons in Primary Performance Medium (8) (See Note 9 below.)

Select 5-6 credits from the following courses:

- 110 History of Jazz (3)
- 111 Film Music (3)
- 122 History of Rock (3)
- 207 Music Technology II (2)
- 208 Audio Production II (3)

CAPSTONE PROJECTS (13. S.H.)

- 399 Music Internship (10)
- 491 Independent Study (3)

Music Business Notes:

8. Credits must all be taken in the large ensemble related to major performing medium.
9. Students must enroll in a minimum of 4 semesters of applied lessons, and they must pass the 200-level requirements in applied lessons to graduate.

ADDITIONAL REQUIREMENTS (BUSINESS) (24 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 (6 S.H.)

- BUSA 220 Business Statistics (3)
- BUSA 291 Legal Environment of Business (3) OR
- BUSA 301 Business Law I (3)

Marketing (3 S.H.)

- MKTG 300 Principles of Marketing (3)

PIANO PROFICIENCY

See page 150 for information concerning piano proficiency.

B.A. MINOR - MUSIC (MUSA)

22 S.H.

REQUIRED COURSES (19 S.H.)

- 001 Concert Attendance (0)
- 114 World Music (3)
- 201 Music Theory I (4)
- 202 Music Theory II (4)

Major Performing Large Ensemble (4) Choose one: 241, 242, 243 (See Note 10 on page 153)

Applied lessons in primary performance medium (4) (See Note 11)

below.)

(Substitution of up to 2 credits of MUS 337 permitted for piano students.)

B.A. Music Minor Notes:

10. Credits must all be taken in the large ensemble related to major performing medium.
11. Students must enroll in a minimum of two consecutive semesters of applied lessons.

ELECTIVES (3 S.H.)

Any 3 credits of music elective courses except MUS 109 and MUS 120.

B.S. MINOR - MUSIC (MUSS)

26 S.H.

Minor suggested for elementary education majors. Music minor not for licensure.

REQUIRED COURSES (26-28 S.H.)

- 001 Concert Attendance (0) (4 semesters)
- 114 World Music (3)
- 201 Music Theory I (4)
- 202 Music Theory II (4)

Major Performing Large Ensemble (4) Choose one: 241, 242, 243 (See Note below.)

- Applied Piano (Studio instruction) (4) OR 234, 235, and 335 OR
- Applied Guitar (Studio Instruction) (4)

(Substitution of up to 2 credits of MUS 337 permitted.)

- 298 Foundations & Principles of Music Education (2)
- 306 Conducting (2)
- 322 Elementary Music Methods (3)

B.S. Music Minor Note: Credits must all be taken in the large ensemble related to major performing medium.

COURSE DESCRIPTIONS (MUS)

Note: Music course descriptions are listed in the following order: (1) applied courses, (2) ensembles, (3) methods and education, and (4) theory, history, and literature.

APPLIED COURSES

234 - Class Piano I (2 S.H.)

First semester of a sequence designed to develop basic keyboard and musicianship skills in preparation for the Piano Proficiency Examination. Instructor's permission required. Offered each semester.

235 - Class Piano II (2 S.H.)

Second semester of a sequence designed to further develop basic keyboard and musicianship skills in preparation for the Piano Proficiency Examination. Instructor's permission required. Offered each semester.

236 - Class Voice (2 S.H.)

Classification of voices, English diction, fundamentals of vocal techniques. Performance of songs in English and Italian. Offered alternate years.

335 - Class Piano III (2 S.H.)

Final course of a sequence designed to develop and strengthen basic keyboard and musicianship skills in preparation for the Piano Proficiency Examination. Instructor's permission required. Offered each semester.

337 - Accompanying (1-2 S.H.)

Survey of accompanying techniques and styles. Assignment to specific accompanying duties. May be repeated up to total of 6 credits. Prerequisite: Instructor's permission required. 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 who do not fulfill requirements for 160-level series lessons are placed in 060-level series lessons until they are ready for the 160-level series. Piano students who do not meet 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. Music majors or minors may take only two semesters at the 060 level. 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 (2 S.H.). Instructor's permission required.

160-series: Entering students with previous musical training and background (2 or 4 S.H.). Students pursuing secondary performance medium. Instructor's permission required.

260-series: Second-year students (2 or 4 S.H.). Students must show sufficient progress in 160-level series lessons before enrolling for 260-level series lessons. Instructor's permission required.

360-series: Third-year students (2 or 4 S.H.). Students must show sufficient progress in 260-level series lessons before enrolling for 360-level series lessons. Instructor's permission required.

460-series: Fourth-year students and beyond (2 or 4 S.H.). Students must show sufficient progress in 360-level series lessons before enrolling in 460-level series lessons. Instructor's permission required.

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) P/NC only (no audition necessary)

142 Oratorio Chorus (1)

143 Women's Chorus (1)

233 Piano Ensemble (1)

239 Jazz Combo (1)

240 Percussion Ensemble (1)

241 Symphonic Wind Ensemble (1)

242 Orchestra (1)

243 Concert Choir (1)

244 Jazz Ensemble (1)

245 String Ensemble (1)

246 Brass Ensemble (1)

247 Woodwind Ensemble (1)

249 Madrigal Ensemble (1)

METHODS AND EDUCATION

002 - Music Education Seminar (0 S.H.)

A seminar designed to provide music education students with consistent practice in conducting, rehearsal techniques, and performing on secondary instruments or voice throughout their major program. All music education majors are required to enroll each semester they are in attendance at WSU.

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: Admission to the Professional Education Sequence. Not for music majors. Not applicable toward B.A. degree. Offered each semester.

* "Additional Requirements" course as defined in Item 3, page 19.

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: Admission to the Professional Education Sequence. Offered alternate years.

323 - Secondary Music Methods (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 admission 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 occasionally.

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 admission 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. P/NC only. Offered each semester.

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 occasionally.

415 - Vocal Pedagogy (2 S.H.)

Techniques and methodologies of voice instruction. Current trends in vocal pedagogy. Offered alternate years.

416 - Piano Pedagogy (2 S.H.)

Survey of 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. Instructor's permission required. 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 occasionally.

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 occasionally.

422 - Music Seminar on Choral Techniques and Materials (2 S.H.)

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.)

Course designed to help the high school teacher choose vocal solo literature for all types of voices. Offered occasionally.

424 - High School Orchestra Methods (2 S.H.)

Course is designed to assist high school teachers in selecting music that 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.)

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.)

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.)

This course consists of workshops presenting new ideas or theories, elaborating on new trends in music education, and offering guidelines for improving public school music programs. Course content changes each year. May be repeated for credit.

THEORY, HISTORY, AND LITERATURE**107 - Music Technology I (3 S.H.)**

This course is taught in Rochester at RCTC. Students will investigate the relationship between computer, software, and electronic instruments. The student will investigate basic MIDI concepts in theory and practice. The student will be given individual lab time where he/she will create music compositions and audio projects. Prerequisites: None.

108 - Audio Production I (3 S.H.)

This course is taught in Rochester at RCTC. Students will learn basic terminology, theory and practice of modern recording techniques, and become proficient at operating analog and digital recording equipment. Students will be given individual lab time for audio production projects. Prerequisites: None.

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. Students become familiar with representative works through recordings. Offered each semester.

110 - History of American Jazz (3 S.H.)

A history of jazz in America, its African and European influences, its emergence as a recognizable art form in the 20th century, and its present-day varieties. Offered each semester.

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. Offered occasionally.

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. Concert/listening lab required. Offered yearly.

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 southeast Asia. Designed for the general student as well as the music major or minor. Offered occasionally.

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. Designed for the general student as well as the music major and minor. Offered occasionally.

120 - Introduction to Music Theory (3 S.H.)

An introduction to the structure and notation of music found in past and current composition. Does not fulfill elective requirements for music major/minor. Offered yearly.

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 1950s, and its symbiotic relationship with modern society. Offered occasionally.

201 - Theory I (4 S.H.)

Scales; intervals; 2-, 3-, and 4-part writing; non-harmonic tones; simple harmonic progression and voice leading; beginning aural skills. Prerequisite: Successful completion of Theory Entrance Exam or MUS 120. Offered yearly.

202 - Theory II (4 S.H.)

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. Must be a declared music major or minor. Offered yearly.

203 - Theory III (4 S.H.)

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. Must be a declared music major. Offered yearly.

204 - Theory IV (4 S.H.)

Chromatic harmony. New harmonic approaches including twelve tone, polytonality, atonality, and related 20th century techniques. Aural skills further developed. Prerequisite: MUS 203. Must be a declared music major. Offered yearly.

205 - Composition (2 S.H.)

A study of the creative process. Original student compositions. Prerequisite: MUS 204 or equivalent. Offered alternate years.

207 - Music Technology II (2 S.H.)

This course is taught in Rochester at RCTC. Continuation of concepts taught in MUS 107. Additional areas of study will include writing music and data CDs, creation of sound and music for video productions, and basic Quicktime video editing and production. The student will be given individual lab time to create music for audio/video projects. Prerequisites: MUS 107 (Electronic Music I).

208 - Audio Production II (3 S.H.)

This course is taught in Rochester at RCTC. Continuation of the concepts taught in MUS 108. This course will emphasize the understanding of sound and acoustics; microphone design, construction and placement; and equalization. Students will be given individual lab time for audio production projects. Prerequisites: MUS 108.

250 - Sight Singing (2 S.H.)

Study in aural perception of interval and rhythmic relationships. Prerequisite: Knowledge of musical notation. Offered occasionally.

255 - Jazz Improvisation I (2 S.H.)

A study of the basic tools of jazz improvisation including scales, chord terminology, the blues, and basic jazz forms. Prerequisites: MUS 201 or instructor's permission. Offered alternate years.

256 - Jazz Improvisation II (2 S.H.)

This course is the second of a four-part sequence in jazz improvisation. Sectional forms, progressions in minor keys, pentatonic scales, diminished scales. Prerequisites: MUS 255 or equivalent.

301 - Orchestration and Instrumentation (2 S.H.)

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.)

Scoring 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.

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 occasionally.

351 - Music of the Middle Ages, Renaissance and Baroque (3 S.H.)

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. Instructor's permission required for non-major. Offered yearly.

352 - Music of the Classical Period, 19th and 20th Centuries (3 S.H.)

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 and MUS 351. Instructor's permission required for non-major. Offered yearly.

355 - Jazz Improvisation III (2 S.H.)

This course is the third of a four-part sequence in jazz improvisation. Technology tools are presented and investigated. In-depth study of altered dominant chords. Prerequisites: MUS 256 or equivalent.

356 - Jazz Improvisation IV (2 S.H.)

This course in the final course in a four-part sequence in jazz improvisation. In-depth investigation of major group styles. Free jazz, preparation for jazz recital. Prerequisites: MUS 355 or equivalent.

402 - Form & Analysis (3 S.H.)

Analysis of compositions as to form, melodic, and harmonic structure. Students write original compositions modeled after works analyzed. Prerequisite: MUS 204. 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.

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, including changes in music since the beginning of the 20th 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. Prerequisite: MUS 351. Offered alternate years.

472 - Survey of Vocal Literature II (German) (2 S.H.)

Lieder of Schubert, Schumann, Franz, Mendelssohn, Brahms, Strauss, 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 alternate years.

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. Includes discussion of the history of the piano's development. Instructor's permission required. 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. Instructor's permission required. 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.

NURSING

Stark Hall, Room 303 (507-457-5120)

www.winona.edu/nursing (e-mail: nursing@winona.edu)

Joanne Stejskal (Chairperson)

FACULTY

Note: All nursing faculty are registered nurses.

Susan Ballard, Professor; B.S.N., University of Illinois; M.S.N., University of Minnesota; 1984 -

Cynthia Bork, Associate Professor; B.S.N., College of St. Teresa; M.S., Winona State University; Ed.D., St. Mary's University of Minnesota; 1993 -

Diane McNally Forsyth, Associate Professor; B.S., Winona State University; M.S., University of Wisconsin-Madison; Ph.D., University of Wisconsin-Milwaukee; 2004 -

Karen L. Gardner, Professor; B.S.N., Florida State University; M.S.N., Texas Woman's University; 1985 -

Phyllis Gaspar, Professor; B.S.N., M.S.N., University of Nebraska; Ph.D., Case Western Reserve University; 1995 -

Timothy Gaspar, Dean, Professor, College of Nursing and Health Sciences; B.S., South Dakota State University; M.S.N., University of Nebraska Medical Center; Ph.D., University of Utah; 1995 -

Elizabeth Harrison, Associate Professor; B.S., University of Wisconsin-La Crosse; A.A., Rochester Community College; B.S., Marquette University; M.S., Ph.D., University of Wisconsin-Milwaukee; 2005 -

Jacqueline Hatlevig, Professor; B.S.N., Winona State University; M.S.N., Ph.D., University of Wisconsin-Milwaukee; 1987 -

Linda Heath, Associate Professor; B.S., M.S.N., University of Wisconsin; Ph.D., Walden University; 1993 -

Judy Howelson, Associate Professor; B.S.N., University of Vermont; M.S.N., University of Minnesota; F.N.P., Winona State University; 1984 -

Lola Johnson, Associate Professor; B.S.N., Minnesota State University-Mankato; M.S.N., Washington University; D.N.Sc., Rush University; 1989 -

Kathryn Lammers, Assistant Professor, B.S., Kent State University; M.S.N., Winona State University; 2001 -

William McBreen, Professor; B.S.N., Mount Marty College; M.S.N., University of Nebraska Medical Center; Ph.D., University of Texas; 2000 -

Shirley Newberry, Associate Professor; B.S., University of Dubuque; M.S., Winona State University; D.N.Sc., Rush University; 1994 -

Catherine Nosek, Associate Professor; A.D., Inver Hills Community College; B.S., M.S., University of Wisconsin; Ph.D., University of Wisconsin-Madison; 1997 -

Gayle P. Olsen, Professor; B.S.N., College of Saint Teresa; M.S., University of California; 1980 -

Kathy S. Orth, Professor; A.A., Austin Community College; B.S.N., College of Saint Teresa; M.S.N., University of Minnesota; 1983 -

Christine E. Pilon-Kacir, Professor; B.S.N., Mercy College of Detroit; M.S., University of Michigan; Ph.D. University of Missouri, 1994 -

Julie Ponto, Associate Professor; B.S., University of Minnesota; M.S., University of California-San Francisco; 2004 -

Cindy Scherb, Associate Professor, B.S., Mount Mercy College; M.S., University of Minnesota; Ph.D., University of Iowa; 2002 -

Lisa Schnepfer, Associate Professor; A.D., Western Wisconsin Technical College; B.S., Winona State University; M.S., University of Wisconsin-Eau Claire; 2005 -

Linda Seppanen, Professor; B.S.N., St. Olaf College; M.S.N., The Catholic University of America; Ph.D., University of Alabama; 1990 -

Joanne Stejskal, Professor; B.S.N., College of Saint Teresa; M.S.N., University of Wisconsin; Ed.D., University of St. Thomas; 1975 -

Patricia Thompson, Professor; B.S.N., B.S., Winona State University; M.S.P.H., Ph.D., University of Minnesota; 1990 -

Mary Welhaven, Professor; B.S.N., Winona State University; M.S., Ph.D., University of Minnesota; 1981 -

PROGRAM OVERVIEW

The nursing major offers a liberal education with a concentration of study in nursing. The curriculum builds on a broad base of university studies. In addition to liberal learning and global perspectives, students develop clinical, scientific, decision-making, and caring skills in nursing courses that combine the theory and the practice of nursing. Graduates are prepared to practice in all health care settings, work with clients of all ages, and pursue graduate study. The nursing major is structured in two options:

- Generic Option for students seeking professional preparation at the level of B.S. degree (Bachelor of Science in Nursing) and registered nurse licensure. The Generic Option can be completed on the Winona campus, through the 2+2 Program with RCTC on the Rochester campus (page 42), or by traditional transfer. This option includes two years of sequenced upper-division nursing coursework. Most students complete the major on a full-time basis of study; part-time study is possible.
- RN-to-BS Option for those who already hold a registered nurse license and are now seeking a B. S. degree. This option includes sequenced upper-division nursing courses that can be completed in one to two years after all other degree requirements are completed. The RN-to-BS Option can be completed on a full-time or part-time basis at the Rochester campus and through outreach. The Department of Nursing also offers an adapted RN-to-MS Professional Pathway for registered nurses whose goal is to earn a Masters Degree in Nursing.

A variety of community facilities are utilized for site-based experiences for students in the nursing major. Campus assignment determines location of clinical facilities. Students in the Generic Option assigned to the Winona campus participate in acute care clinical experiences at Community Memorial Hospital in Winona and the Gundersen-Lutheran and Franciscan-Skemp medical complexes in La Crosse, Wisconsin. Students in the Generic Option assigned to the Rochester campus participate in acute care clinical experiences at hospitals affiliated with Mayo Medical Center and Olmsted Medical Center. Both campuses also offer a wide variety of other clinical experiences in nursing homes, public health agencies, mental health agencies, school systems, occupational health settings and other agencies, and clients' homes. Students in the RN-to-BS Option have learning experiences in the Rochester area through a variety of community and county agencies. RN-to-BS courses are delivered through classroom and web-based instruction.

ACCREDITATION AND APPROVAL

The Nursing Programs are accredited by the Commission on Collegiate Nursing Education (CCNE), 1 Dupont Circle NW, Suite 530, Washington, D. C. 20036-1120 (202-887-6791 or www.aacn.nche.edu). The undergraduate Nursing Program is approved by the Minnesota Board of Nursing (www.nursingboard.state.mn.us). Graduates are eligible to write the professional nurse licensure examination (NCLEX-RN) and apply for Public Health Nursing Certification. Graduates can apply to the Board of Teaching for a school nurse license in Minnesota after they obtain the RN license and Public Health Nurse certification.

ADMISSIONS

For general information about Winona State University admission procedures and requirements, see page 5.

Admission to the Generic Option

1. Complete the WSU admissions process before the application deadline for the nursing major.
2. Complete the application to the nursing major during the spring semester prior to beginning nursing courses the following fall (during a student's second year) or during the fall semester for spring admission prior to beginning nursing courses. Check with the Department of Nursing for the application deadline set for that semester. Notification of admission to the nursing major is made during the semester of application. Nursing advisors are available to assist with the application process. Please refer to the Department of Nursing Student Progression Policies for further delineation of the admission policies. The number of students admitted to the upper-division nursing major is limited.
 - a. Students applying to the nursing major must have completed four prerequisite courses in the natural sciences with a grade of "C" or better and have an admission GPA of 3.00 or above. This admission GPA is cumulative and calculated on the most recent five years of college coursework. If

there are fewer than 50 credits within the 5-year interval and there are previous college credits, the most recent 50 semester hour credits of college work will be used. If 50 credits fall within a semester, all credits within that semester will be used in the GPA calculation. Quarter credits will be converted into semester credits. All grades for prerequisite courses must be at a “C” or better no matter when they were completed. All prerequisite coursework must be completed before beginning coursework in the major.

- b. When applying, students must indicate a plan for completing any remaining prerequisite courses in the natural and social sciences and ENG 111 prior to starting the nursing major in the fall. ALL prerequisite courses must be completed with a grade of “C” or better.
- c. In addition to meeting the above requirements, a student transferring from another nursing program must submit to the Department of Nursing an official transcript from the program and a letter from the academic head of the program stating that the student is eligible for continuing in or readmission to that program. Placement in the major will then be determined based on background and space available.
- d. Campus preference (Winona or Rochester) is indicated during the application phase. Campus assignments are made at the time of admission to the major. Students who are accepted to a particular campus must start at that campus in the semester for which they applied. Slots will not be held from semester to semester.

Four-Year Graduation Guarantee

Winona State University guarantees that all eligible students wishing to graduate in four years will be provided necessary courses as required by the University, the College of Nursing and Health Sciences, and the participating department. This guarantee applies to new entering first-year students who begin at Winona State University in the fall semester. Students who earn college credits during high school years or during the summer prior to their first year at WSU meet this requirement as the four-year period begins with the fall semester of the first year. Any required courses needed beyond four years will be provided to the student tuition-free, subject to the student's fulfillment of the conditions.

Students who meet the following requirements of the Four-Year Graduation Guarantee are admitted to the nursing major:

1. All fall semester entering first-year students who wish 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 participating students must be qualified to begin college-level (i.e., non-remedial) science, mathematics and English as required by the nursing major. If the student takes MATH 050 or English (ENG) 099, this contract is void.
3. All participating students must pre-register for classes each semester and have their schedules approved by their official nursing advisor.
4. All participating students must meet any University or program GPA and/or grade requirements as stipulated in the University catalog and/or schedule of classes. They must also have a cumulative GPA of 3.300 at the time of first application to the nursing major. The cumulative GPA is not rounded up.
5. All participating students must successfully complete an average course load of 16 credits each semester (32 credits per year). This includes any PSEO credits and summer school credits completed prior to the first application to the nursing major.
6. All prerequisite courses must be completed with a grade of “C” or better, and none of these courses can be repeated.
7. No change in major, option, or minor.
8. Failure to meet any of the above conditions (1-7) voids the guarantee. Once the graduation guarantee is void, the student is not eligible for reinstatement of the contract.

Admission to the RN-to-BS Option

1. Complete the WSU admissions process before applying to the nursing major (page 5). After receiving the Official Evaluation of Credit from the Office of Admissions (DARS), arrange an appointment with a nursing advisor on the Rochester campus.
2. Apply for admission to the nursing major. Applicants to the Nursing Program are admitted once a year for the following academic year.
 - a. Contact the Rochester campus Nursing Department office in the preceding fall for application materials, deadline dates, and general information. Students need to seek academic advisement prior to applying to the RN-to-BS Option program to ensure that all requirements are fulfilled. Select the full-time or part-time option for completing the nursing courses.
 - b. Additional degree requirements beyond nursing courses will need to be completed for graduation. It is highly recommended that all non-nursing degree requirements and the nursing requirement of 5 upper-division elective credits be completed prior to the RN-to-BS Option nursing courses because of scheduling considerations.
 - c. All RN-to-BS Option students must hold an RN license with current registration by a state or territory of the United States. A photocopy of the license must be submitted to the Nursing Department.
 - d. Twenty-four (24) credits in the RN-to-BS Option of the nursing major (NURS 302, NURS 304, NURS 306 and NURS 308) will be granted by transfer to RN students who have completed an Associate Degree in Nursing from an NLNAC-accredited program. The Comprehensive Nursing Assessment Test (CNAT) is used as a challenge for these credits for RNs who are graduates of diploma programs and A.D.N. programs that are not accredited by NLNAC. If the examination is successfully completed, the twenty-four credits are validated for the graduate of the A.D.N. program not accredited by NLNAC. For the graduate of a diploma program, if the examination is successfully completed, the twenty-four credits are processed through WSU registration with payment of appropriate tuition.
 - e. The RN-to-MS Professional Pathway is designed for highly motivated nurses who graduated with an associate degree in nursing or a diploma in nursing, who have nursing experience, and whose goal is a Masters Degree in Nursing. Selected courses meet requirements for the undergraduate and graduate programs. Students must meet additional admission requirements and should also consult the WSU Graduate Catalog. Separate formal application to the Master's Nursing Program is required. Further information can be obtained from the Department of Nursing at WSU-Rochester Center.

MnSCU Statewide Nursing Articulation Agreement

The following terms and conditions of articulation among 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 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 RNs should not be required to complete more total credits for the degree than the generic nursing baccalaureate students.

ACADEMIC POLICIES, PROCEDURES, REQUIREMENTS, AND RESOURCES

Costs

Nursing students admitted into the upper-division nursing major must assume responsibility for any costs incurred while meeting the clinical agency requirements. 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 pins and any necessary identification, uniform(s), lab coats and faculty-approved stethoscopes, as well as any costs incurred to maintain their health (throat cultures, physician/ nurse practitioner visits, etc.) and meet any clinical agency requirements. Initial costs for book purchases for junior nursing students in the Generic Option can total approximately \$500 to \$750. Most textbooks are used throughout the program. Nursing students need to provide for themselves compatible computer access for electronic communication for coursework and departmental needs.

Scholarships

A number of scholarships are available for nursing majors through the Department of Nursing; a complete listing is maintained in the Nursing Department Offices on both the Rochester and Winona campuses. Students should apply for scholarships one academic year in advance of the academic year when the scholarship is desired (e.g., apply during the 2006-2007 academic year for the 2007-2008 academic year). Scholarships are provided by individual benefactors, affiliating hospitals, and professional and community organizations. Students are encouraged to contact agencies (hospitals, nursing homes, American Legion, VFW, etc.) in their hometowns regarding possible nursing scholarships. Refer to pages 10 and 12 for general information on financial aid and scholarships, respectively.

Professional-Related Organizations

Minnesota Student Nurses Association (MSNA): This is a pre-professional organization with membership at the local, state, and national levels. Declared nursing majors are welcome and encouraged to join. The Winona campus MSNA office is located in Stark Hall, Room 314. Names of current officers are posted on Nursing Department bulletin boards in Winona and Rochester.

Undergraduate Nursing Clubs: The membership includes all who are in the Generic Option, with separate clubs on the Winona and Rochester campuses. They deal with student-related issues and events. Officers and representatives to Department of Nursing committees are elected yearly, and names are posted on the respective campuses.

Kappa Mu Chapter of Sigma Theta Tau: The purpose of this nursing honor society is to recognize superior achievement and development of leadership qualities, foster high professional standards, and encourage creative work. Membership is by invitation and includes nurses in the southeast Minnesota area and students.

Program Assessment

The Department of Nursing requires all students enrolled in the nursing major to participate in the systematic evaluation of program outcomes. This involves completion of surveys, participation in discussion groups, and maintenance of a portfolio. This portfolio includes examples of work showing critical thinking, communication abilities, caring therapeutic nursing interventions and service, and evidence of progression in the professional nursing roles throughout the educational experience.

Honors in Nursing Program

This program provides eligible students an opportunity to participate in scholarly activity above and beyond the normal course of study provided within the Nursing Department. Students in the Honors in Nursing Program have an opportunity to work closely with faculty advisors pursuing research or clinical projects, and they receive recognition for their achievements. Students interested in the Honors in Nursing program should contact their nursing faculty advisor.

Students who successfully complete the Honors in Nursing Program will, upon graduation, have their official transcripts stamped with the words, "Graduated with Honors in Nursing"; their graduation status (Honors in Nursing) will be indicated on the graduation program.

Minimal Standards within the Nursing Major

To satisfy the academic standards of the nursing major, students must:

1. Achieve a grade of "C" or above 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. Maintain a level of health 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. Follow the ethical responsibilities as outlined in the *Handbook for Undergraduate Nursing Students*.
4. Complete the forms for the background studies conducted by the licensing division of the Department of Human Services on behalf of the Department of Health. 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. 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."
5. Meet clinical agency requirements when enrolled in courses with site-based experiences: yearly Mantoux skin 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; annual health care provider CPR certification; and professional liability insurance. The professional liability insurance will be an automatic fee, which the student incurs upon admission to the nursing major.

Professional Retention and Progression Policies

1. No nursing course may be repeated more than once due to withdrawal or grade less than "C." (A grade of "D" or less is considered to be a failing grade.) 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. Students 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. A student may be dismissed from a course for breach of ethical responsibilities. See the *Handbook for Undergraduate Nursing Students* or contact the Office of the Vice President for 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. A student may be dismissed from a nursing course for breach of clinical safe practice guidelines as described in the course syllabus.
5. Students who once were admitted to the nursing major, completed at least one nursing course, but 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 (for Generic Option students) or the RN Coordinator (for RN-to-BS Option students). After one year, the student must reapply for admission to the nursing major.
6. All students are assigned to a clinical site-based experience sequence. If a student varies from the assigned plan, space in clinical courses cannot be assured.
7. All part-time students must file a written progression plan that has been approved by the nursing advisor or the RN-to-BS Option Coordinator (for RN-to-BS Option students) and the Progression Committee.
8. 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 obtain plan approval from the department chairperson or designated faculty member (for Generic Option students) or the RN Coordinator (for RN-to-BS Option students). This plan is based on space availability in clinical courses and completion of prerequisites for courses.
9. 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, some course assignments were not finished but the student was passing all other aspects (refer to page 24). For courses that are prerequisite to subsequent nursing courses, the "Incomplete" must be resolved by the second week of the new semester.

Credit by Examination

A student may receive credit by examination and/or demonstration of competence for courses or parts of courses in the Generic and RN-to-BS Options. Faculty permission is needed for some course challenges.

Graduation Requirements

Graduation requirements include completion of WSU University Studies Program requirements or their equivalent for transfer students as well as all nursing major course requirements. A total of 128 semester credits is needed to graduate with a baccalaureate degree from WSU; at least 64 of these semester credits must be from a four-year college. For the RN-to-BS Option nursing major, the 64 credits from a four-year college include 30 credits in nursing, 3 credits in statistics, 5 upper-division elective credits (2 credits of these in nursing), plus 26 credits.

A formal application for graduation must be made no later than one semester before the expected graduation semester. For a checklist of the University's graduation requirements, see page 22.

Withdrawal

Withdrawal from a nursing course and/or the University must be completed according to WSU guidelines (page 27).

OBTAINING LICENSURE AS A REGISTERED NURSE

After graduation, Generic Option nursing graduates must pass the National Council Licensure Examination (NCLEX-RN) in order to obtain a Registered Nurse (RN) license. Students may apply for licensure and take the NCLEX-RN in the state of their choice. Contact information for all state boards of nursing can be obtained from the National Council of State Boards of Nursing at <http://www.ncsbn.org/>.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Department of Nursing offers the following flag courses in the University Studies Program:

FLAG

Oral

- NURS 419 Advanced Health Promotion (3)
- NURS 491 Capstone Experience in Role Synthesis (3)

Math/Critical Analysis

- NURS 375 Nursing Research, Theory, and Technology (3)

Writing

- NURS 330 Role Development I (3)
- NURS 423 Role Development III (4)
- NURS 445 Management and Leadership (3) (RN-to-BS Option)
- NURS 475 Community Health Nursing (4) (RN-to-BS Option)

Flag courses that can be used to satisfy Nursing major/minor requirements are identified in the lists of required courses and electives in this section.

B.S. MAJOR - NURSING (NUGE; NURN)

96 S.H. (No Minor Required)

Note: All courses must be taken for a letter grade

PREREQUISITES/REQUIRED COURSES 41 S.H. NATURAL SCIENCE 22 S.H.

Biology (14 S.H.)

- BIOL 206 Normal Nutrition (3) OR HERS 205 Nutrition for Lifetime Wellness (3)
- BIOL 209 Microbiology (3)
- * BIOL 211 Anatomy and Physiology I (4)
- * BIOL 212 Anatomy and Physiology II (4)

Chemistry (8 S.H.)

- CHEM 210 Chemistry for Health Sciences (4) OR
- CHEM *212 (4), *213 (4) Principles of Chemistry I and II

SOCIAL SCIENCE 12 S.H.

Psychology (6 S.H.)

- * PSY 210 General Psychology (3)
- * PSY 250 Developmental Psychology (3)

Sociology (6 S.H.)


- * SOC 150 Introduction to Sociology (3)
- * SOC 212 The Family (3)

OTHER REQUIRED COURSES 7 S.H.

English (4 S.H.)

- ENG 111 College Reading and Writing (4)

Statistics (3 S.H.)

- STAT 110 Fundamentals of Statistics (3) OR
-  PSY 231 Statistics (3) (Note: This course does not fulfill a mathematics requirement for University Studies.)

UPPER-DIVISION ELECTIVES

(300- and 400-level courses) (5 S.H.)

Five semester hours of upper-division electives (300- and 400-level courses) are required for the nursing major; of these, 2 semester hours

must be from nursing electives. Electives may be taken as letter grade or pass/no credit if the courses are offered on a P/NC basis.

NURSING ELECTIVES (100-200 LEVEL)

- 120 Introduction to the Health Professions (3)
- 260 Women's Health Issues (3)



NURSING ELECTIVES - NURS (300-400 LEVEL)

- 325 Transcultural Issues in Health Care (3)
- 327 Introduction to Public Health (3)
- 360 Pharmacology (1) (for RN-to-BS Option only)
- 366 Pathophysiology (3) (for RN-to-BS Option only)
- 392 Cardiac Risk Prevention (3)
- 399 Skills for Professional Success (2)
- 401 Spirituality in Nursing (2)
- 402 Clinical Pharmacology (3) (RN-to-MS Professional Pathway)
- 404 Advanced Pathophysiology (3) (RN-to-MS Professional Pathway)
- 406 Psychosocial Interventions in Family Care (2) (RN-to-MS Professional Pathway)
- 408 Advanced Role Seminar (2) (RN-to-MS Professional Pathway)
- 410 Theoretical Foundations and Research for Advanced Nursing Practice
- 412 Critical Care Nursing (2-3)
- 414 Health Care Policy and Finance (3) (RN-to-MS Professional Pathway)
- 416 Issues in Gerontology and Geriatrics for the 21st Century (1-3)
- 417 Health Assessment Techniques (1)
- 418 Computer Applications in Nursing (2)
- 419 Advanced Health Promotion (3) (RN-to-MS Professional Pathway)
- 432 Principles of OR Nursing (3)
- 460 Cooperative Education in Nursing (3)
- 480 Holistic Approaches to Health (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/Workshop in Nursing (1-3)
- 496 Feminist Perspectives in Nursing (2)
- 497 Nursing Care of the Aged (3)

B.S. MAJOR - NURSING: GENERIC OPTION (NUGE)

56 S.H. (Required courses must be taken for a letter grade.)

REQUIRED COURSES (NURS)

- 300 Caring Skills I (2)
- 301 Caring Skills II (2)
- 311 Clinical Decisions: Adult Health I (2)
- 320 Caring Concepts I (3)
- 321 Caring Concepts II (3)
-  330 Role Development I (3)
- 331 Role Development II (4)
- 345 Health Assessment I (3)
- 346 Health Assessment II (2)
- 360 Pharmacology (1)
- 366 Pathophysiology (3)
-  375 Nursing Research, Theory and Technology (3)

* "Additional Requirements" course as defined in Item 3, page 19.

- 400 Emerging Health Care Systems (2)
- 411 Clinical Decisions: Adult Health II (2)
- 413 Nursing of Families Experiencing Mental Illness (2)
- 421 Nursing of Childbearing Families (2)
- 422 Nursing of Childrearing Families (2)
- ✍️ 423 Role Development III (4)
- 433 Role Development III Seminar (1)
- 471 Community Health Care (2)
- 472 Leadership/Management in Nursing (2)
- 474 Role Development IV (4)
- 484 Role Development IV Seminar (1)
- ✍️ 491 Capstone Experience in Role Synthesis (3)

B.S. MAJOR - NURSING: RN-TO-BS OPTION (NURN)

54 S.H. (Required courses must be taken for a letter grade.)
Note: Includes 24 S.H. of nursing in transfer or exam.

REQUIRED COURSES (NURS)

- ✍️ 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)

COURSE DESCRIPTIONS (NURS)

Note: Courses offered on a pass/no credit-only (P/NC) or grade-only basis are so designated. All required courses in the major must be completed on a grade-only basis.

120 - Introduction to the Health Professions (3 S.H.)

Examines the practice and politics of the health and health-related disciplines within the U.S. health care system. Explores entering the health care professions and also how to be an astute consumer of health care. P/NC option.

260 - Women's Health Issues (3 S.H.)

A study of contemporary issues in women's health focusing on historical aspects, current significance, and future trends of each issue. Focus is on preparing students to make their own health care decisions. P/NC option.

300 - Caring Skills I (2 S.H.) (Generic Option)

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 Option)

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: NURS 300. Grade only.

302 - CNAT: Care of the Adult Client (6 S.H.) (RN-to-BS Option)

Demonstration of knowledge through an exam focusing on the nursing care of clients in a variety of settings and at various stages of the wellness-illness continuum. Items also assess nursing skills in meeting physiologic and psychosocial needs of clients with stable conditions. The Comprehensive Nursing Assessment Test (CNAT) is required for RNs who are graduates of diploma programs and A.D.N. programs that are not accredited by NLNAC. P/NC only.

304 - CNAT: Care of Client During Childbearing (6 S.H.) (RN-to-BS Option)

Demonstration of knowledge through an exam focusing on nursing care during the antepartal, intrapartal, and neonatal periods. Emphasis is on the normal, with some common complications. The Comprehensive Nursing Assessment Test (CNAT) is required for RNs who are graduates of diploma programs and A.D.N. programs that are not accredited by NLNAC. P/NC only.

306 - CNAT: Care of the Child (6 S.H.) (RN-to-BS Option)

Demonstration of knowledge through an exam concerned with nursing care of children of all ages at various stages of health and illness. The Comprehensive Nursing Assessment Test (CNAT) is required for RNs who are graduates of diploma programs and A.D.N. programs that are not accredited by NLNAC. P/NC only.

308 - CNAT: Care of the Client with a Mental Disorder (6 S.H.) (RN-to-BS Option)

Demonstration of knowledge through an exam addressing the broad spectrum of psychological wellness-illness. The content includes psychosocial assessment and intervention strategies to support the

client's strengths. The Comprehensive Nursing Assessment Test (CNAT) is required for RNs who are graduates of diploma programs and A.D.N. programs that are not accredited by NLNAC. P/NC only.

311 - Clinical Decisions: Adult Health I (2) (Generic Option)

This course introduces students to beginning clinical decision-making and the application of therapeutic nursing interventions for adult clients and their families. Students are expected to apply theory and scientific principles, as well as to begin analyzing client responses to nursing and medical interventions. Prerequisite: NURS 320, NURS 330, NURS 345, NURS 360, NURS 366. Grade only.

320 - Caring Concepts I (3 S.H.) (Generic Option)

Introduces the profession of nursing in the context of the changing health care delivery system. Caring concepts, clinical decision-making, therapeutic use of self and professional roles of caregiver, scholar, and advocate are emphasized. Prerequisite: Admission to the major. Grade only.

321 - Caring Concepts II (3 S.H.) (Generic Option)

Focuses on health promotion for self, individuals, and groups, and builds on professional nursing role development as caregiver, advocate, scholar, and teacher. Primary, secondary, and tertiary levels of prevention related to major health problems are included. Prerequisite: NURS 320. Grade only.

325 - Transcultural Issues in Health Care (3 S.H.) (Elective)

Explores the importance of transcultural concepts that are present in health care delivery systems. It is designed to help learners to increase awareness of all types of human diversity, understand the importance of these diverse differences, and incorporate ways of utilizing this knowledge to deliver culturally competent health care in all settings within the global community. Prerequisite: Sophomore standing or instructor's permission. P/NC option.

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 - Role Development I (3 S.H.) (Generic Option)

Beginning integration of ethical decision-making, communication, health assessment, and therapeutic nursing interventions into the professional nursing roles of provider of care, scholar, and advocate. Includes Care Group activities. Ninety hours practicum for semester. Prerequisite: Admission to the major; prerequisite or corequisite: NURS 300, NURS 345, NURS 320, NURS 360, NURS 366. Grade only.

331 - Role Development II (4 S.H.) (Generic Option)

This site-based experience (SBE) course offers the students opportunity to apply content of previous and concurrent nursing courses in the care of individuals, families and/or children, and aggregates. To meet the objectives of this course, students rotate through various settings (i.e., ambulatory clinics, acute care settings, schools, workplaces, and/or homes). Prerequisite: NURS 330, NURS 300, NURS 345, NURS 320, NURS 360, NURS 366; prerequisite or corequisite: NURS 301, NURS 321. Grade only.

345 - Health Assessment I (3 S.H.) (Generic Option)

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. Lecture and lab course. Grade only.

360 - Pharmacology (1 S.H.) (Generic Option; elective for RN-to-BS Option)

An introduction to general principles of drug therapies in self-care and in nursing practice. Prerequisite: Sophomore standing or instructor's permission. Grade only.

366 - Pathophysiology (3 S.H.) (Generic Option; elective for RN-to-BS Option)

Covers the human pathologic processes and common treatment modalities for frequently occurring health problems. Nursing prerequisite: Completion of anatomy and physiology sequence or instructor's permission. HERS prerequisite: HERS 340 Physiology of Exercise and completion of A & P sequence. Grade only.

375 - Nursing Research, Theory and Technology (3 S.H.) (Generic & RN-to-BS Options)

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)

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. New technology in diagnosing and treating cardiac conditions is included. Prerequisite or corequisite: Anatomy & physiology course. 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 Option)

Explores American and global nursing care within the health care delivery systems including consideration of issues and trends in organization/management, quality, financing, political, legal, and ethical. Prerequisite: Senior standing in major or instructor's permission. Grade only.

401 - Spirituality in Nursing (2 S.H.) (Elective)

The purpose of this course is to assist students in their understanding of spirituality and spiritual development, and to identify ways of incorporating the essence of spirituality in their nursing practice. Eastern and Western spirituality and practices affecting health are explored. Students examine how society and their own biases have affected their ability to respond to spiritual concerns and needs. Spiritual assessment and specific spiritual interventions are discussed. Students are challenged to explore their own spiritual nature and its impact in their personal and professional lives. P/NC option.

402 - Clinical Pharmacology (3 S.H.) (Elective, RN-to-MS Professional Pathway)

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. Prerequisite: Admission to the graduate program in nursing or instructor's permission. Grade only.

404 - Advanced Pathophysiology (3 S.H.) (Elective, RN-to-MS Professional Pathway)

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. Prerequisite: Admission to the graduate program in nursing or instructor's permission. Grade only.

406 - Psychosocial Interventions in Family Care (2 S.H.) (Elective, RN-to-MS Professional Pathway)

This course explores the role of the advanced practice nurse in addressing the psychosocial needs of the client and family. Focus will be on developing counseling skills for advanced psychosocial assessment and providing culturally sensitive guidance in caring for the client and family during health crisis and acute and chronic illness. Prerequisite: Admission to the graduate program in nursing or instructor's permission. Grade only.

408 - Advanced Role Seminar (2 S.H.) (Elective, RN-to-MS Professional Pathway)

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. Prerequisite: Admission to the graduate program in nursing or instructor's permission. Grade only.

410 - Theoretical Foundations and Research for Advanced Nursing Practice (4 S.H.) (Elective, RN-to-MS Professional Pathway)

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. Students 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. Prerequisite: Admission to the graduate program in nursing or instructor's permission. Corequisite or prerequisite: STAT 601. Grade only.

411 - Clinical Decisions: Adult Health II (2 S.H.) (Generic Option)
Theoretical, scientific, developmental, and nursing theories are applied to the care of individual adults/older adults. Students utilize decision-making skills, reflective judgment, and medial-surgical practice standards to plan care for acute and chronic health conditions. Prerequisite: NURS 330, NURS 330, NURS 360, NURS 366. 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. The 3-credit option requires the instructor's permission. Prerequisite: NURS 411, NURS 423, and senior standing or instructor's permission. P/NC option.

413 - Nursing of Families Experiencing Mental Illness (2 S.H.) (Generic Option)

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: NURS 330. Prerequisite or corequisite: NURS 331. Grade only.

414 - Health Care Policy and Finance (3 S.H.) (Elective, RN-to-MS Professional Pathway)

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. Prerequisite: Admission to the graduate program in nursing or instructor's permission. Grade only.

415 - Holistic Caring - (5 S.H.) (RN-to-BS 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. Prerequisite: Admission to RN-to-BS Option; Corequisite: NURS 375, NURS 435, NURS 475. Grade only.

416 - Issues in Gerontology and Geriatrics for the 21st Century (1-3 S.H.) (Elective)

This course is a series of three consecutive modules of content related to common issues in gerontology and geriatrics. A student may take one, two, or all three modules, and each has the preceding module as a prerequisite. The course focuses on normal aging, theories of aging, social gerontology, and societal effects of an increasing population of older people. The geriatric content will focus on major geriatric syndromes such as immobility, incontinence, instability, iatrogenic illness, and intellectual impairment. Emphasis will be placed on assessment and maintenance of individual competency, independence, and physiological function across clinical settings. Prerequisite: Senior standing in major or instructor's permission. Grade only.

417 - Health Assessment Techniques (1 S.H.) (Elective)

A guided study review of the basic components of physical assessment and an opportunity for performance evaluation at completion of course. Content relative to obtaining a complete health history and performing a physical examination, with appropriate documentation of each. Designed to ensure readiness for Advanced Practice Health Assessment. Prerequisite: Instructor's permission. P/NC option.

418 - Computer Applications in Nursing (2 S.H.) (Elective)

This course is designed to provide knowledge of technological modalities presently used to assist in the diagnosis and treatment of patients, planning and monitoring of care, management of information, and data analysis. The application of nursing informatics in nursing research, administration, education, and practice will be explored. Emphasis in this course is on extensive hands-on experience in Windows 98, word processing, spreadsheet and database applications, presentation software, the Internet, and other computer-related applications. Prerequisite: Sophomore standing. P/NC option.

419 - Advanced Health Promotion (3 S.H.) (Elective, RN-to-MS Professional Pathway)

Concepts related to health promotion and maintenance are analyzed from theoretical- and research-based perspectives. Using principles of epidemiology, advanced practice nurses identify risk factors for specific populations and examine variables that influence wellness. Interventions for promotion of optimal health are designed with particular consideration for age and cultural differences. A community-based practicum allows the student to explore possibilities for enacting the advanced practice role outside traditional biomedical settings and within the context of families and communities. (2 S.H. seminar; 1 S.H. clinical). Prerequisite: Admission to the graduate program in nursing or instructor's permission and NURS 410. Grade only.

421 - Nursing of Childbearing Families (2 S.H.) (Generic Option)

Studies the theoretical basis of nursing care dealing with sexuality,

reproductive health promotion, and prenatal through postpartum health promotion. Prerequisite: NURS 330; prerequisite or corequisite: NURS 331. Grade only.

422 - Nursing of Childrearing Families (2 S.H.) (Generic Option)
Studies the theoretical basis of nursing care for families with children. Prerequisite: NURS 330; prerequisite or corequisite: NURS 331. Grade only.

423 - Role Development III (4 S.H.) (Generic Option)
Focuses on the development of the professional nursing roles in restoring, maintaining, and promoting the health of individuals and families. Students care for selected populations (mothers, children, adults, those with mental illness) in various settings. 120 hours practicum for semester. This is a companion course to NURS 433, Role Development III Seminar. The core content related to the populations in the student's site-based experiences must be completed prior to or with this course. Prerequisite: NURS 311, NURS 331, NURS 411. Corequisite: NURS 411, NURS 433. Prerequisite or corequisite depending upon client populations: NURS 471, NURS 413, NURS 421, NURS 422. 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. Prerequisite: NURS 300 and NURS 301 or instructor's permission. P/NC option.

433 - Role Development III Seminar (1 S.H.) (Generic Option)
Seminar course that integrates major concepts and professional roles through presentations and discussion of clinical exemplars, nursing research, and nursing literature. Includes Care Group activities. This is a companion course to NURS 423, Role Development III. Corequisite: NURS 423. Grade only.

435 - Holistic Assessment (4 S.H.) (RN-to-BS 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 RN-to-BS Option; Corequisite: NURS 415 and NURS 475. Grade only.

445 - Management and Leadership (3 S.H.) (RN-to-BS 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. Prerequisite: NURS 375, NURS 415, NURS 435, NURS 475. Corequisite: NURS 455, NURS 465, NURS 491. Grade only.

455 - Continuity of Care (4 S.H.) (RN-to-BS 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. Prerequisite: NURS 375, NURS 415, NURS 435, NURS 475. Corequisite: NURS 445, NURS 465, NURS 491. Grade only.

460 - Cooperative Education in Nursing (3 S.H.) (Elective)
Students receive a planned and supervised clinical experience with a nurse preceptor, integrating formal classroom and clinical study in nursing. This course facilitates a student's career pathway by emphasizing clinical practice interests. Prerequisite: Completion of second semester of clinical lab courses in the nursing major or instructor's permission. P/NC option.

465 - Nursing Roles and Health Promotion (4 S.H.) (RN-to-BS Option)
Focuses on the professional 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. Prerequisite: NURS 375, NURS 415, NURS 435, NURS 475; corequisite: NURS 445, NURS 455, NURS 491. Grade only.

471 - Community Health Care (2 S.H.) (Generic Option)
Explores the historical roots of public health care and addresses public health issues for vulnerable populations and ways nursing deals with chronic needs. Prerequisite: NURS 321, NURS 331, NURS 346. Prerequisite or corequisite: NURS 411. Grade only.

472 - Leadership/Management in Nursing (2 S.H.) (Generic Option)
Explores leadership and management theories, attributes, and behaviors within the culture of nursing. Prerequisite: NURS 400, NURS 423. Grade only.

474 - Role Development IV (4 S.H.) (Generic Option)
Focuses on professional role development with special emphasis on the leadership role in caring for groups of selected populations (mothers, children, adults, those with mental illness) in various settings. 120 hours practicum for semester. This is a companion course to NURS 484, Role Development IV Seminar. The core content related to the populations in the student's site-based experiences must be completed prior to or with

this course. Prerequisite: NURS 423, NURS 433; corequisite: NURS 484 and NURS 472. Prerequisite or corequisite depending upon client populations: NURS 411, NURS 471, NURS 413, NURS 421, NURS 422. Grade only.

475 - Community Health Nursing (4 S.H.) (RN-to-BS 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. Prerequisite: Admission to RN-to-BS Option; prerequisite or corequisite: NURS 375, NURS 415, NURS 435. 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. Prerequisite: Sophomore standing or instructor's permission. P/NC option.

484 - Role Development IV Seminar (1 S.H.) (Generic Option)
Seminar course that integrates major concepts and professional roles, especially the leadership role, through group activities and application of nursing research. Includes Care Group activities. This is a companion course to NURS 474, Role Development IV. Corequisite: NURS 474. 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-to-BS Options)
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 semester of nursing major 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. Prerequisite: Admission to major and instructor's permission. Grade only.

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. Prerequisite: Sophomore standing or instructor's permission. 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 helps students to utilize this information in developing a caring nursing practice. Prerequisite: Sophomore standing or instructor's permission. P/NC option.

495 - Seminar/Workshop in Nursing (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. Prerequisite: Admission to major or instructor's permission. 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. Prerequisite: Admission to major or instructor's permission. 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. Prerequisite: Admission to major or instructor's permission. P/NC option.

PARALEGAL

Minné Hall, Room 212 (507-457-5400)
Kurt Hohenstein (Program Director)

FACULTY

Kurt Hohenstein, Assistant Professor; B.A., J.D., M.A., University of Nebraska; Ph.D., University of Virginia, 2005 -

PURPOSE

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 of 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. The American Bar Association approves the WSU Paralegal Program. **Note:** Graduates of the program may not provide legal services directly to the public except under the supervision of a practicing attorney or as provided by law.

ADMISSION REQUIREMENTS

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.

PARALEGAL PHASES

The Paralegal Program has three phases:

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. HIST 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 semester hours in a variety of law-related courses from various disciplines. Option B requires a student to successfully complete a minor of her/his choice in addition to completing the first two phases of the program.

ADDITIONAL COURSE AND GPA REQUIREMENTS

- Students are required to have substantially completed their University Studies requirements and Phase II requirements before they enroll in Legal Research. They also must have the academic advisor's approval.
- 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 GPAs before enrolling in HIST 370, Legal Research and Writing I.
- Coursework below a grade of "C" in legal specialty courses does not count toward completion of the paralegal major.

For a checklist of the University's graduation requirements, see page 22.

PASS/NO CREDIT (P/NC) COURSES

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.

B.S. MAJOR - PARALEGAL (PLGA; PLGB)

128 S.H.

CORE REQUIREMENTS

Option A (85 S.H.)

Option B (50 S.H. plus minor)

I. INTERDISCIPLINARY FOUNDATIONS (27 S.H.)

History (12 S.H.)

- * HIST 150 U.S. History to 1865 (3)
- * HIST 151 U.S. History Since 1865 (3)
- HIST 365 American Legal History (3)** OR
- HIST 488 American Constitutional History** (3)

One of the following:

- HIST 220 Introduction to African American History (3)
- HIST 235 History of the American Indian (3)
- ♥ HIST 315 Women in U.S. History (3)
- HIST 355 European Intellectual and Cultural History (3)
- ♥ HIST 398 Topics in History with Oral Communication Emphasis (3)
- HIST 461 Latin American Social Revolution (3)
- HIST 468 History of the Andean Nations (3)
- HIST 469 History of Brazil (3)
- ♥ HIST 485 Contemporary America 1945-Present (3)
- HIST 486 American Intellectual and Cultural History (3)

Political Science (9 S.H.)

- * POLS 120 Intro to American Politics (3)
- POLS 320 Constitutional Law (3)
- POLS 420 Administrative Law (3)

** A student may also choose to take both HIST 365 American Legal History and HIST 488 Constitutional History to satisfy this requirement.

II. LEGAL SPECIALTY SEQUENCE (29 S.H.)

- ♥ HIST 370 Legal Research and Writing I (3)
- HIST 371 Substantive Law and Ethics I (2)
- ♥ HIST 372 Legal Research and Writing II (3)
- HIST 373 Adversary Systems: Civil Procedure (2)
- HIST 374 Evidentiary Rules (2)
- HIST 375 Substantive Law & Ethics II (3)
- HIST 376 Adversary Systems: Criminal Procedure (2)
- HIST 380 Paralegal Internship (12)

III. OPTIONS

OPTION A: 35 S.H. (PLGA)

Business Administration

- BUSA 301 Business Law I (3)

History

- HIST 377 Practical Legal Investigation Techniques (3)

Physics

- PHYS 310 Science and Technology in Litigation (4)

Sociology

- * SOC 150 Introduction to Sociology (3)
- SOC 216 Social Problems (3)
- ♥ SOC 376 Introduction to Social Research (3)

Approved Electives (16)

Courses approved by Paralegal Director and academic advisor

OPTION B: MINOR REQUIRED (PLGB)

There are no specific general education requirements; however, students should consider what area of paralegal work they want to pursue when choosing University Studies courses. For example, BIOL 117 Human Biology is recommended for those interested in personal injury law.

* "Additional Requirements" course as defined in Item 3, page 19.

COURSE DESCRIPTIONS (HIST)

370 - Legal Research and Writing I (3 S.H.)

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. Grade only. Offered yearly.

372 - Legal Research and Writing II (3 S.H.)

Students will expand use of research and writing techniques gained in Legal Research and Writing I (HIST 370) 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 370. 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 370. 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 370. 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 372. Grade only. Offered yearly.

376 - Adversary System: Criminal Procedure (2 S.H.)

Supplements HIST 373 (Adversary System: Civil Procedure) 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 372. 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. 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.)

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

Minné Hall, Room 329 (507-457-5475)

www.winona.edu/philosophy

Email: philosophy@winona.edu

Edward Slowik (chairperson)

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, Professor; B.A., University of Illinois at Chicago; M.A., 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." - J. S. Mill

Philosophy is the examination of ideas and the evaluation of first principles. In addition to studying its own traditional areas such as 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 Philosophy Department offers a well-rounded minor in philosophy. 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.

Most of the philosophy courses are also University Studies courses. Therefore, students can complete most of the requirements for a philosophy minor while satisfying their University Studies requirements. The electives in the minor enable students to tailor the program to their own interests and major.

PASS/NO CREDIT (P/NC) COURSES

Students must take all courses for the minor on a grade-only basis. The P/NC option is available to non-minors unless otherwise noted. Courses offered on a pass/no credit-only or grade-only basis are so designated in the course descriptions.

B.A. MINOR - PHILOSOPHY (PHIL)

18 S.H.

REQUIRED COURSES - PHIL (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:

220 Philosophy of Democracy (3)

230 Moral Theory (3)

330 Biomedical Ethics (3)

332 Philosophy of Law (3)

335 Constitutional Philosophy (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)
- 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 DESCRIPTIONS (PHIL)

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 the following: Identifying, evaluating, and constructing arguments; identifying informal fallacies; testing syllogisms and propositional arguments for validity and overall cogency; and assessing and constructing position papers. Practice exercises and exams are done on computer. Offered each semester.

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: the 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 semester.

130 - Moral Problems (3 S.H.)

A practical course in ethics, involving concrete issues and their impact on the individual, society, and social policy. Topics may include abortion, euthanasia, sexuality and sexual morality, feminism, welfare, capital punishment, pornography and censorship, animal rights, world hunger, war and terrorism. Offered yearly.

201 - Classical Philosophy (3 S.H.)

A study of the philosophical ideas, values, and world views of ancient Greece, especially its views on the nature of the universe, humanity, knowledge, religion, ethics, and politics. Theories from the Presocratics, Socrates, Plato, and Aristotle will be critically examined and contrasted with contemporary beliefs and values. Offered each semester.

210 - Inductive Reasoning (3 S.H.)

Introduction to inductive reasoning and how to avoid being tricked by faulty or pseudo scientific claims and arguments, and how to critically assess public policy in light of good scientific reasoning. Students study how to use experimentation and the scientific method to 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 yearly.

220 - Philosophy of Democracy (3 S.H.)

An introductory course in political philosophy, investigating the nature and implications of 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 yearly.

230 - Moral Theory (3 S.H.)

A study of major ethical theories, concepts, and issues; for instance, Kantianism, utilitarianism, ethical relativism, concepts of justice, human rights, moral responsibility and free will. Offered yearly.

240 - Philosophy of Science (3 S.H.)

Examines basic issues in the philosophy and foundations 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 studies to what extent each has influenced recent public policy, social debates, and school curricula. Offered yearly.

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 strategies 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 University Studies credit as issues change. Offered as appropriate.

270 - Philosophy of Religion (3 S.H.)

Topics will include arguments for and against the existence of God; the nature of religious belief, miracles, religious language, faith, and reason; as well as Freudian, Existentialist, and Postmodern approaches to religion. This course also briefly reviews the historical and theological background of the main Western religions. Offered as appropriate.

280 - Philosophy of Art (3 S.H.)

An introduction to the fundamental concepts and issues in the philosophy of art. Topics include: The definition of art, art's role and function, taste and judgment, interpretation and intention, representation and expression. The course covers a wide range of views and spans the length of Western philosophy, within the larger realm of social, political, moral, gender, and scientific issues. Offered as appropriate.

301 - Early Modern Philosophy (3 S.H.)

This course 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 Locke, Berkeley, and Hume; and the constructivism of Kant. Offered yearly.

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, the nature of mind, and the nature of the state. Offered yearly.

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 yearly.

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, the relation of law and morality, the obligation to obey the law, civil disobedience, liberty and privacy, theories in private law (tort, contract, property). Offered yearly.

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 its enforcement in a liberal democracy. Topics may include natural law theory, the separations of powers, theories of constitutional interpretation, theories of free speech, privacy doctrine, equal protection, 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 (1-3 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; Fax: 507-457-5606)

Lorene Olson (Chairperson)

FACULTY

Douglas Callahan, Associate Professor; B.S., M.A., University of Denver; Ph.D., University of Kansas, 2000 -
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., M.S., Winona State University; 1987 -
Lorene Olson, Professor; B.S., M.S., University of Wisconsin-La Crosse; Ph.D., University of New Mexico; 1989 -
James Reidy, Associate Professor; B.S., M.S., Ed.D., Oklahoma State University; 2000 -
Roger Riley, Professor; B.S., M.S., University of Wisconsin-La Crosse; Ph.D., Texas A&M University; 2000 -
Tom Sawyer, Associate 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 -
Don Wistrill, Assistant Professor; B.S., M.S., Winona State University; 1990 -
Dave Wright, Associate Professor; B.S., University of Sydney/Gaulburn Teacher's College; M.S., Ph.D., University of Oregon; 2005 -

PURPOSE

The Department of Physical Education and Recreation (PER) exists within the College of Education. Through traditional as well as experiential methods, PER faculty prepare PER majors to become physical education (PE) teachers and recreation, tourism, and therapeutic recreation (RTTR) professionals. The physical education major leads to a Bachelor of Science (teaching) degree. The RTTR major leads to a non-teaching Bachelor of Science degree. In addition, the department offers numerous PE and RTTR courses, which fulfill the 2-semester hour University Studies requirement for Physical Development and Wellness. The intent of the experiential-based courses is to encourage all students to establish and/or maintain a healthy leisure lifestyle.

CAREER OPPORTUNITIES

Physical Education (PE)

Graduates in the physical education major are employed as K-12 educators in private and public schools. Students can expand their career options by combining a health education major and a coaching minor and/or an adapted PE licensure and/or an adventure tourism minor with the PE major.

Recreation and Tourism (RT)

Graduates in the recreation and tourism major are qualified to obtain entry-level positions in the following settings:

- Non-profit or voluntary agencies (e.g., YMCA-YWCA, Scouts)
- Private settings that require memberships (e.g., golf or tennis clubs)
- Military recreation
- Commercial or "for-profit" agencies (e.g., theme parks, fitness centers)
- Public, corporate, campus or correctional recreation
- Adventure-based outdoor programs and adventure travel/outfitting companies
- Federal programs (e.g., U.S. Forest Service, national parks, Bureau of Land Management)

Therapeutic Recreation (TR)

Graduates in the therapeutic recreation major are qualified to obtain entry-level positions in the following settings:

- Special rehabilitation centers for persons with physical disabilities
- Mental health facilities that treat a variety of psychological impairments
- Nursing homes and retirement centers
- Residential centers that care for persons with developmental disabilities
- Some TR specialists also find employment in schools, half-way houses, community recreation programs, or correctional institutions

DEPARTMENT PROGRAMS

- **B.S. Major: Physical Education (Teaching).** It is recommended that students take a double major in health education and/or a coaching minor and/or a licensure in developmental adapted PE and/or a minor in adventure tourism.
- **B.S. Major: Recreation, Tourism and Therapeutic Recreation.** Students in this major may elect the recreation and tourism emphasis or the therapeutic recreation emphasis. While a minor is not required for the RTTR programs, many students elect to complete both emphasis areas and/or add an additional minor such as the adventure tourism or coaching minor.
- **B.S. Minor: Adventure tourism.** (This program is interdisciplinary, sponsored by the RTTR program and the Marketing department.)
- **B.S. Minor: Coaching.**
- **Developmental Adapted Physical Education Licensure**

Travel Study Opportunities

Within the department's interdisciplinary Adventure Tourism (ADVT) minor, travel/study opportunities are offered in Australia, New Zealand, Costa Rica, and the Northern Plain States. Students are not required to be RTTR majors or ADVT minors to take advantage of these programs. Students should see the department chairperson for details.

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 (P/NC) COURSES

Except for internships, students majoring or minoring in PER programs must take all courses in the major, minor, and options on a grade-only basis. Courses offered for pass/no credit-only or grade-only are so designated in the course descriptions. If no grading method is listed for a particular course in the course descriptions, the course may be taken for either grade or pass/no credit.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Department of Physical Education and Recreation offers the following flag courses in the University Studies Program:

FLAG

Oral

PER 414 Recreational Leadership (3)

Math/Critical Analysis

PER 393 Evaluation in Recreation, Tourism, and TR (3)

Writing

PER 326 Organization and Administration of Recreation (3)

PER 426 Recreation Facilities and Area Design (3)

Flag courses that can be used to satisfy Physical Education and Recreation major/minor requirements are identified in the lists of required courses and electives in this section.

B.S. MAJOR - RECREATION, TOURISM AND THERAPEUTIC RECREATION (RTTR)

69 S.H. (No Minor Required)

This major is designed to prepare students for professional leadership roles in a variety of public, commercial, clinical, community, and natural-resource settings offering recreational and/or therapeutic recreation services. Within the major, students may select the Recreation and Tourism (RT) Option and/or the Therapeutic Recreation (TR) Option. Students who graduate with the Therapeutic Recreation Option are qualified to sit for the National Council for Therapeutic Recreation Certification (NCTRC) examination. See page 166 for information about career opportunities available to graduates of both these options.

ADMISSION TO THE MAJOR

To be admitted to the Recreation, Tourism and Therapeutic Recreation (RTTR) Program, a student must fulfill one of the following requirements:

- Be admitted to Winona State University as an entering freshman or transfer student
- Have a minimum 2.0 cumulative GPA as a currently enrolled student.

Denial of Admission

Students may be denied admission to the RTTR major for failure to meet any of the WSU or RTTR admissions requirements.

ACADEMIC STANDING

A student must have a 2.50 cumulative GPA to be eligible for an internship.

ASSISTANCE/RETENTION PLAN

Students identified by the RTTR faculty as needing assistance in academic, personal or professional domains are required to attend a review meeting initiated by the advisor and called by the Department Chairperson. As assistance plan will be developed and will likely draw upon the services of such units as the Counseling Center, the Writing Center, Academic Assistance Center, Students Support Services and the Advising and Retention Office.

WARNING AND SUSPENSION POLICY

Students must be in good standing at the end of each academic year to remain enrolled in the RTTR Program. Students not in good standing will be notified of their status at their advisory session. Students must complete an assistance plan to remain in the program; otherwise, they are suspended from the program.

Reinstatement Policy

Students may apply for reinstatement to the program, one semester after receiving a notice of suspension.





Appeals

Students who are suspended from the RTTR program may submit a written appeal for readmission to the Department Chairperson. If the appeal is denied, the student may appeal in person to the WSU Academic Review Committee.

TRACK A: RECREATION AND TOURISM (RT)

64-68 S.H.

PER COURSES REQUIRED BY TRACK A AND TRACK B (37-39 S.H.)

- 203 Recreation Programming (3)
- 229 Foundations of Recreation and Leisure Studies (3)
- 239 Outdoor Pursuits (3)
- 245 Therapeutic Recreation and Services (3)
-  326 Organization and Administration of Recreation (3)
- 350 Legal and Financial Aspects of Recreation (3)
-  393 Evaluation in Recreation, Therapeutic Recreation & Tourism (3)
- 399 Internship in Recreation and Tourism or Therapeutic Recreation (10-12)
-  414 Recreational Leadership (3)
-  426 Recreation Facilities and Area Design (3)

PER REQUIREMENTS FOR TRACK A ONLY (22 S.H.)

- 222 Resource Applications in Program Delivery for Recreation, Tourism, and Therapeutic Recreation (3)
- 290 Foundations of Tourism (3)
- 302 Adventure Travel and Tourism Development (3)
- 339 Wilderness Ethics, Safety and Survival (3)
- 398 Practicum in Recreation/Therapeutic Recreation (3)
- 421 Outdoor Education and Interpretive Services (3)
- Plus 4 S.H. of any 100-level PE activity courses OR PER 417 (1 (3 S.H.) Special Topics)

INTERDISCIPLINARY REQUIREMENTS FOR TRACK A

5-7 S.H.

Biology/Geography (3 (4 S.H.) in this area)

- GEOG 270 Geography of Tourism (3) OR
- * BIOL 104 Environment, Society, and Conservation (3) OR
- BIOL 203 Natural History (4)





Theatre and Dance/Music (2 (3 S.H.) in this area)

- * THAD 141 Oral Interpretation (3) OR
- THAD239 Creative Dramatics for Children (2) OR
- MUS 324 Recreational Music (2)

Recreation and tourism students are encouraged to take additional coursework related to the natural environment, business concepts, public speaking, marketing, historical and social aspects of American culture, and the use of technology and statistical analysis.

TRACK B: THERAPEUTIC RECREATION (TR) (67-69 S.H.)

PER COURSES REQUIRED BY TRACK A AND TRACK B (37-39 S.H.)

- 203 Recreation Programming (3)
- 229 Foundations of Recreation and Leisure Studies (3)
- 239 Outdoor Pursuits (3)
- 245 Therapeutic Recreation and Services (3)
-  326 Organization and Administration of Recreation (3)
- 350 Legal and Financial Aspects (3)
-  393 Evaluation in Recreation, Therapeutic Recreation, and TR (3)
- 399 Internship in Recreation and Tourism or Therapeutic Recreation (10-12)
-  414 Recreational Leadership (3)
-  426 Recreation Facilities and Area Design (3)

PER REQUIREMENTS FOR TRACK B ONLY (12 S.H.)

- 332 Leisure and Aging in Therapeutic Recreation (3)
- 342 Intervention Techniques in Therapeutic Recreation (3)
- 468 Programming in Therapeutic Recreation (3)
- 475 Trends and Issues in Therapeutic Recreation (3)

ADDITIONAL REQUIREMENTS FOR TRACK B (18 S.H.)

Psychology (6 S.H.)

- PSY 250 Developmental Psychology (3)
- PSY 420 Abnormal Psychology (3)

Biology (4 S.H.)

- * BIOL 211 Anatomy and Physiology (4)

Section I: Counselor Education/Health, Exercise and Rehabilitative Sciences (6 S.H.)

Psychology/Sociology

Note: Select from two disciplines. Courses selected in this section are in addition to University Studies.

Counselor Education

- CE 220 Emotions and Behavior (3)

* "Additional Requirements" course as defined in Item 3, page 19.

Health, Exercise and Rehabilitative Sciences

HERS 340 Physiology of Exercise (4)

Psychology

PSY 210 General Psychology (3)
PSY 303 Brain and Behavior (3)
PSY 305 Theories of Personality (3)
PSY 325 Social Psychology (3)

Sociology

* SOC 150 Introduction to Sociology (3)
SOC 205 Social Interaction (3)
SOC 212 The Family (3)
SOC 216 Social Problems (3)

Section II: Biology/Physical Education and Recreation/Music (2 S.H.)

(Any combination)

Biology

BIOL 171 Medical Terminology (1)
BIOL 172 Medical Terminology (1)

Physical Education and Recreation

PER 417 Special Topics in Physical Education, Recreation, Tourism or Sport (1-3)

Music

MUS 324 Recreational Music (2)

PREPARATION FOR THE NCTRC EXAMINATION

Therapeutic recreation students are strongly encouraged to take additional biology, sociology, psychology, and health promotion courses to fill their University Studies requirements. Through such courses, therapeutic recreation students gain additional exposure to content areas included in their National Council for Therapeutic Recreation Certification (NCTRC) examination.

In addition to completing the TR curriculum outlined above, students who choose to sit for the NCTRC examination after graduation must meet specific non-curricular eligibility requirements related to their ability to provide professional and competent performance of TR services. Students can obtain more information about the NCTRC examination certification requirements from any TR faculty member.

B.S. MINOR - ADVENTURE TOURISM (ADVT)

27 S.H.

Adventure tourism is a rapidly expanding segment of the travel and tourism industry, fueled by a societal need to escape routine lifestyles. People who provide adventure tourism services are likely to engage tourists in such activities as rock and mountain climbing, spelunking, river rafting, whitewater canoeing, trekking, wilderness camping, snow-shoeing and a variety of other pursuits in which the participant is challenged by the natural environment. Students who pursue this minor develop a repertoire of skills related to planning, marketing, and providing successful adventure tourism programs and services.

AREA A: COURSE REQUIREMENTS (RECREATION & MARKETING)

Select 15 to 24 credits from this area. (Students must obtain a total of 27 credits from areas A and B combined.)

Physical Education and Recreation

PER 239 Outdoor Pursuits (3)
PER 290 Foundations of Tourism (3) OR GEOG 270 Geography of Tourism (3)
PER 302 Adventure Travel and Tourism Development (3)
PER 339 Wilderness Ethics, Safety and Survival (3)
PER 350 Legal and Financial Aspects (3)
PER 421 Outdoor Education and Interpretive Services (3)

Marketing

MKTG 335 Tourism Marketing (3)
MKTG 337 Qualitative Research Methods (3) OR
PER 393 Evaluation in Recreation, Therapeutic Recreation and Tourism (3)

AREA B: COURSE REQUIREMENTS

Select 3 to 12 credits from this area. (Students must obtain a total of 27 credits from areas A and B combined.)

Geography

GEOG 270 Geography of Tourism (3) if not taken above

Marketing

‡ MKTG 333 Topics in Marketing (3)
‡ MKTG 399 Internship Experience (3)

Physical Education and Recreation

PER 240 Outdoor Pursuits II (3)

PER 265 Leisure in Different Cultures (3)
PER 290 Foundations of Tourism (3) if not taken above
PER 390 Tourism Planning (3)
PER 396 Leadership and Group Dynamics: An Experiential Education Approach (3)
‡ PER 398 Practicum in Recreation and Tourism or Therapeutic Recreation (3) (May be repeated once for credit within this program.)
‡ PER 417 Special Topics in Physical Education, Recreation, Tourism or Sport (1-3) (May be repeated once for credit within this program.)
‡ Course content must relate to tourism and be pre-approved by the ADVT advisor.

B.S. MAJOR - PHYSICAL EDUCATION (Teaching) (PET)

49 S.H. (No minor required)

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 (page 87). To be admitted into the Professional Education Sequence and to qualify for graduation, students majoring in physical education must have both a 2.75 overall GPA and a 2.5 GPA in the major. Students can expand their career options by taking dual majors, minors, adapted physical education licensure, or a coaching minor.

REQUIRED PHYSICAL EDUCATION

Theory Courses - PER (22 S.H.)

129 Perspectives of Physical Education (1)
190 Introduction to Teaching in Physical Education (1)
205 Teaching Middle/Secondary Physical Education (3)
206 Teaching Elementary Physical Education for Majors (3)
214 Standard First Aid and CPR (2)
300 Motor Learning and Development (3)
317 Curriculum & Methods of Physical Education (3)
337 Developmental/Adapted Physical Education (3)
402 Organization and Administration of Physical Education and Sport (3)

Activity Cores - PER (9 S.H.)

130 Individual/Dual Sports and Activities (3)
132 Rhythm, Dance, Tumbling and Movement Forms (3)
133 Team Sports and Activities (3)

Activity Course Required - PER (1 S.H.)

123 Swimming & Water Safety (1) OR
124 Water Safety Instructor (1)

Biology (8 S.H.)

* BIOL 211 Anatomy and Physiology I (4)
* BIOL 212 Anatomy and Physiology II (4)

Health, Exercise and Rehabilitative Sciences (6 S.H.)

HERS 314 Anatomical Kinesiology (2)
HERS 340 Physiology of Exercise (4) (See Note below.)

Statistics (3 S.H.)

STAT 110 Foundations of Statistics (3)

Prerequisites for Student Teaching

PER 129, 190, 205, 206, 317; BIOL 211 and BIOL 212
(Students must earn a "C" or better in each course.)

Note: Students must earn a "C" or better in BIOL 211 and 212 to enroll in HERS 340, Physiology of Exercise. Students must complete two of three activity cores and PER 129 and 190 to enroll in PER 205 and 206.

DEVELOPMENTAL/ADAPTED PHYSICAL EDUCATION LICENSURE

Candidates seeking licensure in developmental/adapted physical education (D/APE) must:

1. Hold a baccalaureate degree and a valid teaching license in physical education (K-12) or be enrolled in the physical education teaching major.
2. Complete 9 credits of core skills area requirements in special education:
SPED 400 Education of Exceptional Children/Youth (3)
SPED 405 Student Management Systems (3)
SPED 420 Special Education Administrative Procedures (3)
3. Complete the physical education teacher preparation program, which consists of 46 credits.
4. Complete the D/APE licensure course requirements not included in the PE major: PER 331 Perceptual Motor Development (2) and PER 434 D/APE Practicum (4).

Developmental/adapted physical educators will be eligible for licensure in the State of Minnesota when the preceding process is implemented. Practicing teachers may request that their teaching experience and preparation in D/APE be evaluated and credited. Teachers will be asked to complete evaluation forms, documenting their teaching experience and preparation in D/APE. The candidate will be expected to file a formal application with the WSU Office of Admissions and to schedule a consultation regarding deficiencies or additional requirements needed prior to receiving licensure certification. For additional information, candidates should contact the Department of PER, Adapted Physical Education, Memorial Hall, Winona State University, Winona, MN 55987.

B.S. MINOR - COACHING (COAC)

22 S.H.

REQUIRED COURSES

Physical Education and Recreation - PER (18 S.H.)

- 235 Principles of Coaching (3)
- 251 Sports Science (3) (See Note 1 below.)
- 280 Psychology of Physical Activity and Sport (3)
- 300 Motor Learning and Development (3) (See Note 2 below.)
- 402 Organization and Administration of Physical Education and Sport (3)
- 406 Coaching Practicum (3)

Health, Exercise and Rehabilitative Sciences - HERS (2 S.H.)

- 291 Prevention and Care of Athletic Injuries (2)

Choose two of the following PER courses (2 S.H.):

- 304 Techniques of Coaching Football (1)
- 305 Techniques of Coaching Basketball (1)
- 306 Techniques of Coaching Track and Field and Cross Country (1)
- 307 Techniques of Coaching Baseball and Softball (1)
- 322 Techniques of Coaching Soccer (1)
- 328 Techniques of Coaching Volleyball (1)

Notes:

1. PER 251 is waived for students taking HERS 340.
2. PER 300 is waived for physical education majors (part of the major curriculum).

Additional Considerations:

- Prerequisites: PER 235, PER 280, HERS 291, and current CPR/First Aid certification.
- Academic Requirements: Evidence of current CPR/First Aid certification required before graduation. Grade of "C" or above required in all coaching minor courses.

PHYSICAL EDUCATION AND RTTR COURSE DESCRIPTIONS

In this section, courses are listed in the following sequence:

- Physical education courses: (1) theory, (2) activity cores for PE majors only, and (3) activity courses for all students.
- Recreation and tourism/therapeutic recreation courses.

THEORY COURSES

121 - Introduction to Movement & Music (1 S.H.)

A comprehensive, practical study of fundamental dance movement and its relationship with music. World music and dance will be investigated.

129 - Perspectives of Physical Education (1 S.H.)

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.

190 - Introduction to Teaching in Physical Education (1 S.H.)

This course provides an introduction to writing lesson plans and performance/behavioral objectives. In addition, students will apply these instructional plans in peer teaching. Prerequisites: At least two of these courses-PER 130, PER 132, or PER 133. Grade only.

200 - Teaching Elementary Physical Education (3 S.H.)

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.)

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.

205 - Teaching Middle/Secondary Physical Education (3 S.H.)

This course provides practical instruction methods through lecture, classroom settings, and teaching models that will be focused at the middle and secondary level of instruction. Students will be able to

understand and instruct a prescribed curriculum in the physical education classroom setting. Prerequisites: PER 129, PER190 and at least two of these courses-PER 130, PER 132, or PER 133. Grade only.

206 - Teaching Elementary Physical Education for Majors (3 S.H.)
Introduction to teaching physical education in grades PK-6; the course is designed especially for physical education majors. The course focuses on movement concepts, fitness, integration, rhythmic activities, games, and motor development of young learners and how to organize, plan, implement, and assess that content through a physical education program. Grade only.

214 - Standard First Aid and CPR (2 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.

235 - Principles of Coaching (3 S.H.)

This course is designed to provide the student an introduction to the principles of coaching. Topics to be covered include the following: developing a positive philosophy of coaching, qualities of head and assistant coach, sport pedagogy (planning and teaching sport skills), team management, personal manager, support groups, manager of media, recruiting process and issues, problems and concerns of athletics. Grade only.

251 - Sports Science (3 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.

280 - Psychology of Physical Activity and Sport (3 S.H.)

A detailed study of the application of selected psychological variables for coaches and individuals who participate in physical activity and sport. Grade only.

300 - Motor Learning and Development (3 S.H.)

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 or instructor's permission. 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.)

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 activity core course. Grade only.

322 - Techniques of Coaching Soccer (1 S.H.)

Theory and practice of teaching and coaching soccer. Grade only.

328 - Techniques of Coaching Volleyball (1 S.H.)

Theory and practice of teaching and coaching volleyball. Grade only.

329 - Techniques of Coaching Gymnastics (1 S.H.)

Theory and practice of teaching and coaching gymnastics. Grade only.

331 - Perceptual Motor Development (2 S.H.)

In-depth examination of contemporary motor developmental theories, principles of normal and abnormal motor development, and clinical applications of immature locomotor patterns. Grade only.

337 - Developmental/Adapted Physical Education (3 S.H.)

Methods, techniques, and special programs of physical education for the atypical child. Emphasis will be on those disabling conditions most prevalent in the school system and the laws that govern them. Lab and practical experiences are included. Grade only.

402 - Organization and Administration of Physical Education and Sport (3 S.H.)

Plans of organization, administration, policies, budget, finance, legal aspects, staff, physical plant, publicity, public relations, time schedules, student leaders, and programs. Prerequisites: PER 129, PER 200 and PER 327, senior standing or instructor's permission. Grade only.

406 - Coaching Practicum (3 S.H.)

Directed supervision in coaching. The student proposes the sport and location when he/she is interested in coaching. After approval of the cooperating coach and the Director of Coaching, the student will be granted a coaching practicum under direct supervision. Prerequisites: PER 235, PER 280, HERS 291, and current CPR/First Aid certification.

* "Additional Requirements" course as defined in Item 3, page 19.

The student must show proof of current CPR/First Aid certification prior to beginning the practicum. Grade only.

410 - Coaching Clinic (2 S.H.)

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.)

Opportunity to work independently. Prerequisite: Junior or senior, preparation of proposed outline and major advisor's permission. Grade only.

417 - Special Topics in Physical Education, Recreation, Tourism or Sport (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 topic. Grade only.

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.)

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. 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 adaptive physical education setting. Grade only. Offered on demand.

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 physically, mentally and emotionally challenged individuals. Grade only. Offered on demand.

ACTIVITY CORES FOR PE MAJORS ONLY

Courses in this category include comprehensive development of skills, knowledge of rules, strategies, terminology, and participation in the designated activities.

130 - Individual/Dual Sports and Activities (3 S.H.) Grade only. Additional fee.

132 - Rhythm, Dance, Tumbling and Movement Forms (3 S.H.) Grade only. Additional fee.

133 - Team Sports and Activities (3 S.H.) Grade only.

ACTIVITY COURSES FOR ALL STUDENTS

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 letter grade. If physical education activity courses are repeated to improve competency, only the final grade will count in calculating GPA. All activity courses are 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.)

The development of basic fundamental skills, knowledge, and strategies involved in beginning basketball in order to be able to enjoy recreational basketball.

102 - Slow-Pitch Softball (1 S.H.)

This course will develop skills and techniques in softball, including rules and strategies of play.

103 - Racquetball (1 S.H.)

The development of basic fundamental skills, knowledge, and strategies involved in beginning racquetball in order to be able to enjoy playing recreational racquetball.

104 - Volleyball (1 S.H.)

The development of basic fundamental skills, knowledge and strategies involved in volleyball in order to be able to enjoy recreational volleyball.

112 - Folk and Square Dance (1 S.H.)

Fundamental skills and knowledge necessary for the recreational purposes of the participant.

120 - Ballroom Dance (1 S.H.)

Introduction to the basic techniques of recreational ballroom dancing. Includes the foxtrot, waltz, lindy, and rumba.

122 - Beginning Swimming (1 S.H.)

This course covers basic water safety skills and knowledge including physical and mental adjustment to water for non-swimmers.

123 - Swimming & Water Safety (1 S.H.)

Fundamental skills and endurance related to swimming strokes and aquatic safety. For swimmers who can handle themselves in deep water.

124 - Water Safety Instructor (1 S.H.)

Teaching methods for swimming, diving, basic water safety, and program development. Culminates with Red Cross certification. Prerequisite: PER 123 or demonstrated competency.

134 - Downhill Skiing (1 S.H.)

Fundamental skills and knowledge appropriate for the beginner, intermediate, and advanced skier. Additional fee for those who need to rent equipment.

135 - Weight Training (1 S.H.)

Fundamental skills and knowledge necessary for the recreational purposes of the participant.

137 - Fencing (1 S.H.)

Fundamental skills and knowledge necessary for the recreational purposes of the participant. Includes rules, conditioning, and strategy of play.

139 - Tennis (1 S.H.)

Fundamental skills and knowledge appropriate for the beginner, intermediate, and advanced plays, including rules, conditioning, and strategy of play. Students must supply their own racquet and balls.

140 - Bowling (1 S.H.)

Fundamental skills and knowledge necessary for the recreational purposes are provided for the participant. The course includes rules and strategies of play. Additional fee.

141 - Golf (1 S.H.)

This course will teach students the techniques of a golf swing. Golf course strategies and etiquette will be explained and examined on an authentic golf course. Additional fee.

142 - Badminton (1 S.H.)

The development of basic fundamental skills, knowledge, and strategies involved in beginning badminton in order to be able to enjoy playing recreational badminton.

144 - Contemporary Activities (1 S.H.)

This course introduces the student to varied contemporary, movement-based activities. A variety of activities will be introduced as a means of encouraging movement and expanding the student's leisure interest profile. May be repeated for credit under different subtitle.

199 - Lifetime Fitness (2 S.H.)

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.

RECREATION AND TOURISM/THERAPEUTIC RECREATION

203 - Recreational Programming (3 S.H.)

This course provides an introduction to recreational and sports programming and leadership concepts. Grade only.

222 - Resources and Applications in Program Delivery for Recreation, Tourism and Therapeutic Recreation (3 S.H.)

Students develop resource applications for program delivery in recreation, tourism, and therapeutic recreation including the creation of newsletters, brochures, business cards, database and budget management, and agency websites. Prerequisite: PER 203. 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.

265 - Leisure in Different Cultures(3 S.H.)

The purpose of this course is to introduce students to different cultures

through travel study. Applies only to travel education programs offered through PER and the ADVT minor. Repeatable for credit when students enroll in different travel/study programs. Grade only.

290 - Foundations of Tourism (3 S.H.)

This course will explore the tourism system and expose the students to the delineations of tourists and tourism enterprises, travel trends, governmental and non-governmental roles, transportation providers, and destination services and attractions. Attention will also be given to the impacts of tourism. Grade only.

302 - Adventure Travel and Tourism Development (3 S.H.)

An overview of the rapidly growing adventure tourism industry, and its relation to the field of recreation and leisure studies. Course emphasis will be placed on adventure tourism and 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.

339 - Wilderness Ethics, Safety, and Survival (3 S.H.)

Students will examine the elements of ethical wilderness trip planning, low impact activities, and select appropriate gear and equipment for trip safety. Survival and rescue skills will also be examined in this course. 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.

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.

390 - Tourism Planning (3 S.H.)

Tourism planning involves maximizing benefits and minimizing negative impacts for local and regional tourism destinations. Student will be exposed to and understand positive and negative impacts of tourism; the need for resource inventories; the matching of resources with particular visitors, superstructure, and infrastructural needs; and the service quality necessary for visitor satisfaction and repeat visitation. Offered on travel study program only. Grade only.

393 - Evaluation in Recreation, Tourism, and TR (3 S.H.)

The procedures and applications of social science research and evaluation methods are applied to recreation settings. Course content includes design, methods of data collection, interpretation, and presentation of the data. Emphasis is given to evaluation techniques used by recreation professionals. Grade only.

396 - Leadership and Group Dynamics: An Experiential Education Approach (3 S.H.)

As a member of a travel study group for an extended period of time, participants in this experientially based course will have a rich opportunity to observe, apply, synthesize, and reflect upon readings and personal experiences pertinent to leadership and group dynamics issues. Offered on travel study programs only. Grade only.

398 - Practicum in Recreation and Tourism or 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 a different setting. Prerequisite: Must have completed PER 229 and 245 and have consent or special permission of department.

399 - Internship in Recreation and Tourism or Therapeutic Recreation (1-12 S.H.)

The application of skill, knowledge and concepts necessary for planning, organizing and conducting recreation and leisure services. Permission and 2.50 GPA prior to placement. Therapeutic Recreation interns also must obtain a copy of their intern supervisor's current NCTRC certification certificate. Interns must complete a 12 (or more) consecutive week, 480-hour placement under a qualified recreation specialist. Prerequisite: Senior standing in the RTTR major and completion of recreation core courses, or instructor's permission. P/NC only.

412 - Independent Study in Physical Education/Recreation or Dance (1-3 S.H.)

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 - Special Topics in Physical Education, Recreation, Tourism or Sport (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. Grade only.

421 - Outdoor Education and Interpretive Services (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 142 (507-457-5260)

www.winona.edu/physics

Richard Shields (Chairperson)

FACULTY

George Bolon, Professor; B.S., M.S., Oregon State University; Ph.D., University of Utah; 1968 -

Andrew Ferstl, Associate Professor; B.S., University of Wisconsin; Ph.D., University of Minnesota; 2000 -

David E. Hamerski, Professor; B.S., St. Mary's College of Minnesota; M.S., University of Minnesota-Twin Cities; Ph.D., Washington University (St. Louis, 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 -

PURPOSE

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 the natural world. 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 two options:

- Option I is the traditional physics major, designed principally for students who wish to pursue graduate study in physics and related fields.
- Option II is for those who have interests in electronics engineering. Many students in Option II take additional coursework in computer science.

For students interested in teaching, the Physics Department also offers two pathways. One option is Physics Teaching, which certifies teachers to teach high school physics, physical science, and general science for grades 5 through 12. The second option is Physical Science, which certifies teachers to teach high school physics, chemistry, and physical science for grades 9 -12.

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 Federal Aviation Administration as an Airway Science curriculum.

PASS/NO PASS CREDIT (P/NC) COURSES

Except for internships and practica, students must take all courses in their major, minor, options, concentrations and licensures on a grade-only basis. Any course not required for a major or minor may be taken on a pass/no credit basis. Courses offered on a pass/no credit-only or grade-only basis are so designated in the course descriptions.

HONORS IN PHYSICS PROGRAM

Philosophy

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 the 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, a student must:

1. Be a physics major and have completed 20 semester hours of physics.
2. Have at least a 3.0 GPA both overall and within the major.
3. Identify a WSU faculty member who is willing to serve as a research advisor.
4. Apply to the Physics Department for admission to the program.

Participation

Students who are accepted into the program are expected to:

1. Maintain a 3.0 GPA overall and within the major.
2. Make steady progress toward the goals of the 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 the research study at an appropriate regional meeting.

Completion

Upon graduation, students who successfully complete the Honors in Physics Program receive the following recognition of their accomplishments:

1. Official transcripts are stamped with the words "Graduated with Honors in Physics."
2. Transcripts include the title of their honors thesis.
3. Graduation status (Honors in Physics) is acknowledged on the graduation program and during the graduation ceremonies.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Physics Department offers the following flag courses in the University Studies Program:

FLAG

Oral

PHYS 460 Undergraduate Research (1-4)

Math/Critical Analysis

PHYS 345 Thermodynamics and Statistical Physics (4)

PHYS 430 Electromagnetic Theory I (3)

Writing

PHYS 330 Electronics (4)

PHYS 340 Modern Physics (4)

PHYS 370 Optics (4)

Flag courses that can be used to satisfy Physics major/minor requirements are identified in the lists of required courses and electives in this section.

B.S. MAJOR - PHYSICS: OPTION I - PHYSICS (PHYP)

77 S.H. (No Minor Required)

REQUIRED COURSES (71 S.H.)


Physics - PHYS (47 S.H.)

221, 222, 223 University Physics I, II, III (12)

320 Computational Physics (2)


 330 Electronics (4)

 340 Modern Physics (4)

 345 Thermodynamics and Statistical Physics (4)

350 Mechanics (4)

 370 Optics (4)

 430 Electromagnetic Theory I (3)

431 Electromagnetic Theory II (3)

451 Quantum Mechanics (3)

 460 Undergraduate Research (4)

Mathematics - MATH (16 S.H.)

160, 165 Calculus I, II (8)

260 Multivariable Calculus (4)

270 Differential Equations (4)

Chemistry - CHEM (8 S.H.)

*212, *213 Inorganic Chemistry I, II (8)

ELECTIVES - PHYS (6 S.H. from the list below)

328 Electrical Circuits I (4)

329 Electrical Circuits II (4)

332 Computer Organization (2)

333 Microprocessor Electronics (4)

399 Internship (1-4)

400 Seminar (1-4)

404 Nuclear Radiation Physics (4)

420 Control Theory (3)

425 Physics of Semiconductors (3)

B.S. MAJOR - PHYSICS: OPTION II - ELECTRONICS (PHYE)

78 S.H. (No Minor Required)

REQUIRED COURSES (72 S.H.)

Physics - PHYS (45 S.H.)

221, 222, 223 University Physics I, II, III (12)

320 Computational Physics (2)

328 Electrical Circuits I (4)

 330 Electronics (4)

332 Computer Organization (2)

333 Microprocessor Electronics (4)

 340 Modern Physics (4)

420 Control Theory (3)

425 Physics of Semiconductors (3)

 430 Electromagnetic Theory I (3)

 460 Undergraduate Research (4)

Mathematics - MATH (16 S.H.)

- 160, 165 Calculus I, II (8)
- 260 Multivariable Calculus (4)
- 270 Differential Equations I (4)

Chemistry - CHEM (8 S.H.)

- *212, *213 Chemistry I, II (8)

Computer Science - CS (3 S.H.)

- 231 Fortran for Engineering and Science (3) OR
- * 234 Algorithms and Problem Solving (3) OR
- 298 Unix and C Programming (3)

ELECTIVES - PHYS (6 S.H.)

- 329 Electrical Circuits II (4)
- ⌘ 345 Thermodynamics and Statistical Physics (4)
- 350 Mechanics (4)
- ⌘ 370 Optics (4)
- 399 Internship (1-4)
- 400 Seminar (1-4)
- 404 Nuclear Radiation Physics (4)
- 431 Electromagnetic Theory II (3)
- 451 Quantum Mechanics (3)

B.S. MINOR - PHYSICS (PHYS)

33 S.H.

REQUIRED COURSES (16 S.H.)**Physics - PHYS (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 - MATH (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 (PHYS)**

- 223, 320, 328, 329, 330 ⌘, 332, 333, 340 ⌘, 345 ⌘, 350, 370 ⌘ 400, 404, 405, 420, 425, 430 ⌘, 431, 440, 451, 460 ⌘, 490

B.S. MINOR - ELECTRONICS (ELTR)

33 S.H.

REQUIRED COURSES (25 S.H.)**Physics - PHYS (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 - MATH (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 - PHYS**

- 223, 320, 328, 329, 340 ⌘, 350, 370 ⌘, 399, 420, 425, 430 ⌘, 431, 440, 451, 460, 490

B.S. MAJOR - PHYSICS (Teaching) (PHST)

114 S.H. (No Minor Required)

Note: The Minnesota Board of Teaching (BOT) has approved the following major, which certifies graduates to teach general science, physical science, and physics for grades 5-12.

REQUIRED COURSES (114 S.H.)**Additional Requirements (42 S.H.)****Chemistry (8 S.H.)**

- CHEM *212, *213 Principles of Chemistry I, II (8)

Mathematics (12 S.H.)

- MATH 160, 165 Calculus I, II (8)
- MATH 270 Differential Equations I (4)

Biology (8 S.H.)

- BIOL *241, *242 Basics of Life, Organismal Diversity (8)

Geoscience (8 S.H.)

- * GEOS 120 Dynamic Earth (4)
- * GEOS 130 Earth Through Life and Time (4)

Health, Exercise and Rehabilitative Sciences (3 S.H.)

- * HERS 204 Personal and Community Health (3)

Special Education - SPED (3 S.H.)

- * SPED 400 Education of Exceptional Children/Youth (3)

Physics - PHYS (40 S.H.)

- 221, 222, 223 University Physics I, II, III (12)
- 311 Science Teaching Methods (4)
- 320 Computational Physics (2)
- ⌘ 330 Electronics (4)
- ⌘ 340 Modern Physics (4)
- ⌘ 345 Thermodynamics and Statistical Physics (4)
- 350 Mechanics (4)
- ⌘ 370 Optics (4)
- ⌘ 460 Undergraduate Research (2)

Education - EDUC (32 S.H.)

- * 305 Human Development and Learning (4)
- 308 Human Relations and Student Diversity (3)
- ⌘ 312 Instructional Planning and Assessment: Secondary (3)
- 429 Secondary Reading and Teaching Strategies (4)
- ⌘ 449 Middle Level Philosophy, Organization and Interdisciplinary Planning (3)
- ⌘ 459 The Professional Educator (3)
- ⌘ 465 Student Teaching (12)

B.S. MAJOR - PHYSICAL SCIENCE (Teaching) (PPST)

118 S.H.

Note: The Minnesota Board of Teaching (BOT) has approved the following major, which certifies graduates to teach physical science, physics and Chemistry for grades 5-12.

REQUIRED COURSES (118 S.H.)**Additional Requirements (18 S.H.)****Mathematics (12 S.H.)**

- MATH 160, 165 Calculus I, II (8)
- MATH 270 Differential Equations I (4)

Health, Exercise and Rehabilitative Sciences (3 S.H.)

- * HERS204 Personal and Community Health (3)

Special Education (3 S.H.)

- * SPED 400 Education of Exceptional Children/Youth (3)

Chemistry - CHEM (32 S.H.)

- *212, *213 Principles of Chemistry I, II (8)
- 320 Environmental Chemistry (4)
- 340 Organic Chemistry Survey (4)
- ⌘ 360 Chemical Information I (2)
- 400 Biochemistry (4)
- ⌘ 412 Physical Chemistry I (3)
- ⌘ 413 Physical Chemistry I Lab (1)
- 425 Analytical Chemistry I (4)
- 431 Guided Study in Teaching Chemistry (2)

Physics - PHYS (34 S.H.)

- 221, 222, 223 University Physics I, II, III (12)
- 311 Science Teaching Methods (4)
- 320 Computational Physics (2)
- ⌘ 330 Electronics (4)
- ⌘ 340 Modern Physics (4)
- 350 Mechanics (4)
- ⌘ 370 Optics (4)

Physics or Chemistry (2 S.H.)

- CHEM 430 Individual Problems (1) and CHEM 475 Seminar in Chemistry (1) OR

- ⌘ PHYS 460 Undergraduate Research (2)

Education - EDUC (32 S.H.)

- * 305 Human Development and Learning (4)
- 308 Human Relations and Student Diversity (3)
- ⌘ 312 Instructional Planning and Assessment: Secondary (3)
- 429 Secondary Reading and Teaching Strategies (4)
- ⌘ 449 Middle Level Philosophy, Organization and Interdisciplinary Planning (3)
- ⌘ 459 The Professional Educator (3)
- ⌘ 465 Student Teaching (12)

Notes:

1. Individuals holding a college degree and wanting only a certification for grades 9 - 12 physics are required to complete PHYS 221, 222, 223, 311, 320, 340, 345, 350, 330, 370, and 460; CHEM 212, 213; MATH 160, 165, 270; and EDUC 305, 308, 312, 429, 449, 459, 459, 465.

* "Additional Requirements" course as defined in Item 3, page 19.

2. Individuals holding a college degree and wanting only a certification for grades 9 - 12 chemistry are required to complete CHEM 212, 213, 320, 340, 360, 400, 412, 413, 425, 430, 431 and 475; PHYS 221, 222, and 311; MATH 160, 165; and EDUC 305, 308, 312, 429, 449, 459, 459, 465.

B.S. MINOR - AIRWAY SCIENCE/AVIATION (ASAV)

26 S.H.

REQUIRED COURSES (26 S.H.)

Physics (8 S.H.)

PHYS 201, 202 General Physics I, II (8)

Mathematics (3 S.H.)

MATH 140 Applied Calculus (3)

Note: Students not prepared to take MATH 140 should take MATH 120.

Management and Marketing (3 S.H.)

BUSA 301 Business Law I (3)

Aviation - PHYS (12 S.H.)

200 Fundamentals of Aviation (3)

205 Airspace, Communications and Regulations (1)

383 Air Traffic Control (3)

387 Flight Safety (3)

388 Legislative & Legal Aspects of Aviation (2)

Note: For a complete listing of the FAA-approved Airway Science Program, see page 103.

COURSE DESCRIPTIONS (PHYS)

PHYSICS

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. Lab. Not open to students with credits in higher numbered, non-aviation physics courses. Prerequisite: None. Offered each semester.

140 - Energy (3 S.H.)

This course focuses on energy needs, trends, and long-term prospects and resource supplies. The physics of energy, atoms, nuclei, thermal energy, solar energy, alternative energies, and consequences of energy production are discussed. The present governmental energy policy will be discussed along with proposed changes to the policies. Prerequisite: None. 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 PHYS 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, 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 waves, sound, 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. Prerequisite: HIST 365, HIST 370 and HIST 377 or instructor's permission. Grade only. Offered yearly.

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.

320 - Computational Physics (2 S.H.)

A laptop course in computational physics. Numerical methods for integration and differential equations. Symbolic manipulation. Graphics animations, 3-D plots, density plots, three-body problem, potentials and fields, chaos, and quantum mechanics. Prerequisites: PHY 223 and MATH 270. 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, operational amplifiers, wave-form generators, and integrated circuits. Prerequisites: PHYS 222 or PHYS 202 and MATH 165 or instructor's permission. Offered yearly.

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 (4 S.H.)

A lecture-laboratory course on the programming and interfacing of the M68HC12 Motorola microcontroller. Applications of the controller to analog to digital conversion, input and output control, software timing and interrupts will be covered. Prerequisite: PHYS 332. Offered yearly.

340 - Modern Physics (4 S.H.)

A lecture-laboratory course in modern physics. Special relativity, kinetic theory, Bohr Atom, quantum mechanics, atomic physics, nuclear physics, and condensed matter physics. Prerequisites: PHY 223 and MATH 165. Offered yearly.

345 - Thermodynamics and Statistical Physics (4 S.H.)

Equation of state, first and second law, entropy, equilibrium, reversible and irreversible processes, heat engines, probability distributions, statistical representation of entropy, quantum fluids. Prerequisites: PHYS 202 or PHYS 222 and MATH 165. Offered every two years.

350 - Mechanics (4 S.H.)

Rectilinear motion, motion in three dimensions, oscillations, central forces, rigid body motion, non inertial reference frame, Lagrangian mechanics. Prerequisites: PHYS 202 or PHYS 222 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 202 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 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.

420 - Control Theory (3 S.H.)

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 characteristics 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 340. 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 wave guides, optics, and special relativity. Prerequisite: PHYS 430. 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 and MATH 270. Offered every two years.

460 - Undergraduate Research I (4 S.H.)
An opportunity for an advanced physics student to work with a faculty member on an independent research project. A written report and oral presentation are required on results of the research. Offered each semester.

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

200 - Fundamentals of Aviation (3 S.H.)
An applied science course covering, but not limited to, the principles of physics, earth science, and physiology as they relate to aviation. Offered each semester.

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.

205 - Airspace, Communications and Regulations (1 S.H.)
This course complements PHYS 200 and meets the requirements for FAA 141 approval. Subject areas covered include Code of Federal Regulation 14, airspace, ATC Communications, and standard operating procedure. Prerequisite: PHYS 200 or instructor's permission.

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 airspace, 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 permission. 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 en route 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. Includes 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 instructor's permission. Offered every two years.

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. Includes 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 every two years.

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: PHYS 300 and 401 or equivalent. May be repeated. Offered yearly.

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

Minné Hall, Room 120 (507-457-5500; fax 507-457-2621)

www.winona.edu/politicalscience

Darrell Downs (Chairperson)

FACULTY

Matthew Bosworth, Associate Professor; B.A., 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, Associate Professor; B.A., M.A., Portland State University; Ph.D., University of California-Berkeley; 1996 -

Darrell Downs, 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, Professor; A.B., University of New Orleans; A.M., Ph.D., University of Michigan; 1992 -

PURPOSE

Political science deals with the theory and practice of politics, government, and administration. The essence of political science is to discover how, when, and why people and governments shape public decisions. As an academic discipline, it includes political theory, public law, public administration, American politics and policy (domestic and foreign), and 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 public service, business, or education. The study of political science also provides a strong background for success in law school. 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 the world at large. Whether a student is interested in a career in public service or not, the study of politics is a solid preparation for life as a critical thinking adult.

PASS/NO CREDIT (P/NC) COURSES

Except for internships, students must take all courses in the major and minor on a grade-only basis. The P/NC option is available to non-majors for all courses.

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 offers the following courses for political science and public administration programs.

American Politics

- 120 Introduction to American Politics (3)
- 201 Politics and Violence (3)
- 218 Community Service (3)
- 220 Civil Rights and Civil Liberties (3)
- 221 State and Local Government (3)
- 227 Judicial Process and Politics (3)
- 228 Public Service (3)
- 315 American Political Thought (3)
- 320 Constitutional Law (3)
- 321 The American Presidency (3)
- 322 Political Parties and Pressure Groups (3)
- 330 Race and American Politics (3)
- 333 Media and Politics (3)
- 340 Environmental Policy (3)
- 341 Health Care Politics and Policy (3)
- 360 American Congress (3)
- 420 Administrative Law (3)
- 421 The First Amendment (3)
- 425 Policy Studies (3)
- 426 The Politics of Public Budgeting (3)
- 429 Policy Reform (3)

- 430 Agency Performance (3)
- Comparative Politics**
- 135 Comparative Political Systems (3)
- 224 Politics and Society in Latin America (3)
- 225 Ethnic Conflict and Nationalism (3)
- 226 Politics and Society in Africa (3)
- 270 Politics and Society in the Middle East (3)
- 332 European Political Systems (3)
- 335 Latin American Political Systems (3)
- 336 Post-Communist Political Systems (3)
- 337 Asian Political Systems (3)
- 343 Human Rights in Theory and Practice (3)
- 390 Comparative Politics of the Third World (3)
- 475 Democratization and Its Challenges (3)

International Politics

- 130 Introduction to International Relations (3)
- 205 United Nations in World Affairs (3)
- 342 International Political Economy (3)
- 346 International Law (3)
- 347 International Organization (3)
- 422 American Foreign Policy (3)
- 460 North American Relations (3)

- 488 Issues in International Politics (3)

Political Theory

- 150 Introduction to Political Theory (3)
- 260 Classical Political Thought (3)
- 315 American Political Thought (3)
- 325 Modern Political Theory (3)
- 358 Contemporary Political Thought (3)
- 450 Feminist Political Theory (3)

Research and Methodology

- 280 Political Research I - Secondary (3)
- 410 Political Research II - Primary (3)

Note: Independent Readings (401) and Internship (416) credits may apply toward the major requirements, but internships will be limited to 3 semester credits in Option A, Option B, and the public administration major. Students are allowed to take up to 12 credits for internships, but only 3 credits will count toward the major.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Department of Political Science and Public Administration offers the following flag courses in the University Studies Program:

FLAG

Oral

- POLS 421 The First Amendment (3)
- POLS 460 North American Relations (3)
- POLS 488 Issues in International Politics (3)

Math/Critical Analysis

- POLS 280 Political Research I-Secondary (3)
- POLS 410 Political Research II-Primary (3)

Writing

- POLS 260 Classical Political Theory (3)
- POLS 321 American Presidency (3)
- POLS 322 Political Parties and Pressure Groups (3)
- POLS 325 Modern Political Theory (3)
- POLS 330 Race and American Politics (3)

- POLS 333 Media and Politics (3)
- POLS 347 International Organizations (3)
- POLS 358 Contemporary Political Theory (3)
- POLS 425 Policy Studies (3)
- POLS 450 Feminist Political Theory (3)
- POLS 475 Democratization and Its Challenges (3)

Flag courses that can be used to satisfy Political Science major/minor requirements are identified in the lists of required courses and electives in this section.

B.A. MAJOR POLITICAL SCIENCE - GENERAL OPTION A (POLA)

42 S.H. (Minor Required)

REQUIRED COURSES (6 S.H.)

- POLS 120 Introduction to American Politics (3)
- POLS 280 Political Research I - Secondary (3)

ELECTIVES (36 S.H.)

Students should note the following two requirements:

- They must take at least 3 credits (one course) from each of the four sub-fields in political science: American politics, comparative politics, international politics, and political theory.
- Of the 36 credits (12 courses) required for electives, at least 15 credits (five courses) must be at the 300- to 400-level.

B.A. MAJOR POLITICAL SCIENCE - INTERNATIONAL STUDIES OPTION B (POLB)

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 - POLS (15 S.H.)

- 120 Introduction to American Politics (3)
- 130 Introduction to International Relations (3)
- 135 Comparative Political Systems (3)
- ▮ 280 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 (POLS)

21 S.H.

REQUIRED COURSE (3 S.H.)

- POLS 120 Introduction to American Politics (3)

ELECTIVES (18 S.H.)

Students must take at least one course (3 credits) from three of the four sub-fields in political science: American politics, comparative politics, international politics, and political theory.

PUBLIC ADMINISTRATION

The Bachelor of Science major and minor in Public Administration are designed to prepare students for an administrative career in public and nonprofit 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 (PUBA)

33 S.H. (Minor Required)

REQUIRED COURSES - POLS (33 S.H.)

- 120 Introduction to American Politics (3)
- 221 State and Local Government (3)
- 228 Public Service (3)
- ▮ 280 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 (PUBA)

24 S.H.

REQUIRED COURSES - POLS (24 S.H.)

- 120 Introduction to American Politics (3)
- 221 State and Local Government (3)
- 228 Public Service (3)
- ▮ 280 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 DESCRIPTIONS (POLS)**120 - Introduction to American Politics (3 S.H.)**

A study of the purposes of American government, civil rights, the federal system, the powers and functions of the three branches of government, political parties and interest groups, and contemporary problems. Offered each semester.

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, international organizations, and multinational corporations. Offered each semester.

135 - Comparative Political Systems (3 S.H.)

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 case studies. Offered each semester.

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? Offered yearly.

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 each semester.

205 - The United Nations in World Affairs (3 S.H.)

This course deals with the goals, structure, and functions of the United Nations and the way it deals with international issues of war, peace, and development. Offered every two years.

218 - Community Service (3 S.H.)

Democratic theory calls for participation of citizens not only in decision-making but also in community affairs. Students will be offered the opportunity to be involved in their community by volunteering their services and time to not-for-profit organizations as a community service. Such participation would foster community asset building and be beneficial to both the student volunteer and the community at large.

220 - Civil Rights and Civil Liberties (3 S.H.)

A survey of current controversies regarding civil rights and civil liberties, such as the right to privacy, freedom of speech, affirmative action, sexual harassment, gay rights, etc. Recommended: POLS 120.

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.)

A study of the impact of factors such as religion, wealth, natural resources, modern ideologies, and nationalism on the lives of individuals, groups, and countries of Latin America and their politics.

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

* "Additional Requirements" course as defined in Item 3, page 19.

prospects of conflict resolution and political reform in areas suffering from these problems. Offered yearly.

226 - Politics & Society in Africa (3 S.H.)

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, and ethnic mix, modern ideologies on the lives of individuals and nations and on the politics of the African nations. Offered fall semester.

227- Judicial Process & Politics (3 S.H.)

This course provides 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. Prerequisite: POLS 120 or instructor's permission. Offered yearly.

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. Offered yearly.

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 every two years.

270 - Politics and Society in the Middle East (3 S.H.)

A study of the impact of factors such as religion, wealth, natural resources, traditional ideologies, and modern ideologies on the lives of individuals and nations and on politics in the countries of the Middle East and among them. Offered yearly.

280 - Political Research I-Secondary (3 S.H.)

An introduction to political research. Topics include approaches and methods used in political research, framing research questions, developing and testing hypotheses, evaluating research, defining concepts, measuring variables, making observations, analyzing data, and presenting research findings. It is recommended that students complete this course before enrolling in 300- or 400-level courses. Prerequisite: POLS 120 or instructor's permission. Offered yearly.

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 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. Offered yearly.

332 - European Political Systems (3 S.H.)

A comparative study of the ideological, social, economic, and institutional developments of European (East and West) domestic politics and the European Union. Emphasis is placed on the interaction of developments between the domestic and supranational levels of governance. Prerequisite: POLS 135 or instructor's permission. Offered every two years.

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 political development of South American, Central American, and Caribbean countries. Emphasis is placed on cultural, institutional, and economic factors of their development. Prerequisite: POLS 135 or instructor's permission. Offered every two years.

336 - Post Communist Political Systems (3 S.H.)

A comparative study of transitions from communist 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 that did not make the above transition. Prerequisite: POLS 135 or instructor's permission. Offered every two years.

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. Prerequisite: POLS 135 or instructor's permission. Offered every two years.

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 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; however, health care systems of other industrialized nations and developing nations are also examined.

342 - International Political Economy (3 S.H.)

An introduction to the relationship between international politics and international economics and the theories of international political economy. The topics include the following: the politics of international trade, investment, and foreign aid; the consequences of the multinational corporations on international relations and their political role; economic foreign policy-making and its implications for national and international politics. Prerequisite: POLS 130 or instructor's permission. Offered every two years.

343 - Human Rights in Theory and Practice (3 S.H.)

Human rights are those rights possessed by individuals by virtue of being human. They are distinct from civil rights, which are guaranteed by civil societies. This course seeks to identify the basic human rights of individuals as human beings, the evolution of these rights, the philosophical foundations of those rights, and the legal remedies available to victims of violations. The course discusses the roles of national and international communities in protecting human rights including the establishment of a permanent criminal court to prosecute human rights violations.

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. Offered every two years.

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. Offered every two years.

358 - Contemporary Political Thought (3 S.H.)

This is the third part of a three-part survey course on "The History of Political Thought" series offered in the department. This course studies major contemporary thinkers in the canon, such as Nietzsche, Foucault, Arendt, Camus, and Rawls. Offered every two years.

360 - American Congress (3 S.H.)

An examination of the role of Congress in shaping policy and representing constituents. Topics include the organization of Congress, Congressional leadership, voting coalitions, and proposals for reform. Prerequisite: POLS 120.

390 - Comparative Politics-Third World (3 S.H.)

A comparative study of the political ideological, social, and economic development in selected Third World countries. Countries covered may vary each time the course is offered but will include examples from the African, Asian, and Latin American continents. Prerequisite: POLS 135 or instructor's permission.

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. Prerequisite: POLS 380. Offered yearly.

416 - Internship Program (1-12 S.H.)
Provides practical experience in local, state, and national government and public administration (limited enrollment). Credit arranged. (Cannot apply toward a graduate degree. Only three credits count toward major.)

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; and administrative discretion with due consideration to the Federal Administrative Procedure Act. Prerequisite: POLS 120; recommended prerequisite: POLS 320.

421 - The First Amendment (3 S.H.)
A seminar class on one of the most contentious constitutional amendments. Topics include freedom of speech, free exercise of religion, separation of church and state, and freedom of association. Prerequisites: POLS 120 and POLS 320 or instructor's permission.

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. Prerequisite: POLS 130 or instructor's permission. Offered every two years.

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. Prerequisite: POLS 120. Offered every two years.

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. Prerequisite: POLS 120. Offered every two years.

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.

460 - North American Relations (3 S.H.)
This course examines the relations among the three countries of North America: Canada, Mexico, and the United States. The examination of these relations involves the applicable theories of regional cooperation and conflict with special emphasis on integration. The course will also develop an understanding of the evolution of the current state of relations among the three. Focus will be on trade relations, the institutions of NAFTA, security issues, migration, the potential of building a regional community (along political, social, and economic lines), citizen perceptions, and overall development. Prerequisite: POLS 130 or instructor's permission. 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. Prerequisite: POLS 135 or instructor's permission. Offered every two years.

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 such as 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. Prerequisite: POLS 130 or instructor's permission. Offered every two years.

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. These programs are preparatory for a degree at another college or university. WSU offers pre-professional sequences in dentistry, engineering, law, medicine (allopathic and osteopathic), optometry, pharmacy, physician assistant, physical therapy, podiatry, and veterinary medicine.

PRE-DENTISTRY

Science Laboratory Center, Room 289B (507-457-5272)
Dr. David Essar, Advisor

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. A complete list of all dental schools in the United States as well as links to the specific programs can be found at <http://www.adea.org/links>. All pre-dentistry students are encouraged to consult with the advisor to help plan their program. Most pre-dentistry students follow either the Allied Health option or the Cell and Molecular option as described under the Biology Department's programs.

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.

ENG 111	College Reading and Writing (4)
ENG 210/222	An upper-division English intensive writing course (3)
CMST 191	Introduction to Public Speaking (3)
BIOL 241, 242	Basics of Life, Organismal Diversity (8)
MATH 120	Precalculus and MATH 140 Applied Calculus OR
MATH 160	Calculus (7/8)

CHEM 212, 213	Principles of Chemistry I, II (8)
CHEM 350, 351	Organic Chemistry I, II (9)
BIOL 201	Human Anatomy (4)
PHYS 201, 202	General Physics I, II (8)
PSY 210	General Psychology (3)
CHEM 400, 401	Biochemistry I, II (7)

Electives

Electives should be chosen to give students a broad liberal arts education within the limits of time available. Electives from the following areas are suggested: sculpturing, cell biology, genetics, immunology, microbiology, histology, accounting, computer science, and business.

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 - CHEM	
212	Principles of Chemistry I (4)
213	Principles of Chemistry II (4)

* "Additional Requirements" course as defined in Item 3, page 19.

Computer Science - CS

130 Introduction to BASIC Programming (3)

Mathematics - MATH

160 Calculus I (4)

165 Calculus II (4)

260 Multivariable Calculus (4)

270 Differential Equations and Linear Algebra (4)

Physics - PHYS

221 University Physics I (4)

222 University Physics II (4)

302 Electrical Circuits and Systems (3)

Engineering - ENGR

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 - ENG

111 College Reading and Writing (4)

University Studies Courses

PRE-LAW

Minné Hall, Room 212 (507-457-5400)

Dr. Kurt Hohenstein, 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 that provides a breadth of knowledge with in-depth study in areas of special interest. It is also 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 215 (507-457-5271)

http://bio.winona.edu/biohp/acad_deg.htm

Dr. Ed Thompson, Advisor (Biology)

Pasteur Hall, Room 312A (507-457-5291)

<http://course1.winona.edu/chemistry/premed.htm>

Dr. Bruce A. Svingen, Advisor (Chemistry)

With few exceptions, admission into a medical school requires a bachelor's degree but does not require a specific undergraduate major. Each pre-medical student should, therefore, choose a major in which he or she has a strong interest while working closely with a pre-medical advisor to be certain that prerequisite courses for medical schools are completed. In the Biology Department, most pre-medical students choose the Cell and Molecular option. In the Chemistry Department, most pre-medical students choose Option A.

Admission to the University of Minnesota-Twin Cities Medical School, Mayo School of Medicine, and the University of Minnesota-Duluth Medical School require completion of a four-year degree which includes:

Biology with lab (2 semesters/1 year)

General chemistry with lab (2 semesters/1 year)

Organic chemistry with lab (2 semesters/1 year)

Calculus (1 semester)

Physics with lab (2 semesters/1 year)

Biochemistry (1 semester)

English (2 semesters/1 year)

Social and behavioral sciences (4 semesters/2 years)

These same requirements are applicable to the majority of both allopathic (MD) and osteopathic (DO) medical schools in the United States. Pre-medical students should seek the advice of a pre-medical advisor during their first semester at WSU, and they 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 August prior to the year in which applications will be submitted. MCAT application and AMCAS packets are available online; the pre-medical advisors will help students access these applications.

Recommended Courses

Note: ENG 111, CHEM 212 and 213, and BIOL 241 and 242 should be taken during the first year of college.

English

ENG 111 College Reading and Writing (4)

Biology

BIOL *241, *242 Basics of Life, Organismal Diversity (8)

BIOL 201, 323 Human Anatomy (4), General Physiology (4)

✎ BIOL 308 Cell Biology (3)

✎ BIOL 310 Genetics (3)

BIOL 409 General Microbiology (4)

Mathematics & Statistics

MATH 160 Calculus I (4) OR

MATH 140 Applied Calculus (3)

STAT 305 Biometry (3)

Chemistry

CHEM *212, *213 Principles of Chemistry I, II (8)

CHEM 350, 351 Organic Chemistry I, II (9)

CHEM 400, 401 Biochemistry I, II (7)

Physics

PHYS *201, *202 General Physics I, II (8) OR

PHYS *221, *222, 223 University Physics I, II (8)

Psychology

PSY *210 General Psychology (3)

PSY 250 Developmental Psychology (3)

300-400 level Humanities (3)

300-400 level Psychology (3)

Other Courses to Complete Required Credit

Students should consult with their advisor for those courses necessary to complete a B.S. or B.A. degree.

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

Chemistry Department: Pasteur Hall, Room 312B (507-457-2476 or 457-5294)

<http://course1.winona.edu/chemistry/prepharm>

Dr. Thomas W. Nalli and Dr. Sara Hein, Advisors

This program meets the requirements of most pharmacy colleges but especially those of the University of Minnesota and the University of Wisconsin. Students planning to attend other schools should consult the respective catalogs.

Biology - 8 or 11 S.H.

For the University of Minnesota-Twin Cities

BIOL 201 Human Anatomy (4)

BIOL 209 Microbiology (3)

BIOL 241 Basics of Life (4)

For the University of Wisconsin-Madison

BIOL 241 Basics of Life (4)

BIOL 242 Organismal Diversity (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 and Physics - 12 S.H.

MATH 160 Calculus I (4)

PHYS 201 General Physics I (4) OR PHYS 221 University Physics I (4)

PHYS 202 General Physics II (4) OR PHYS 222 University Physics II (4)

Language Skills - 4 or 10 S.H.

For the University of Minnesota-Twin Cities

ENG 111 College Reading and Writing (4)

ENG 210 Advanced Expository Writing (3) OR another upper-level English course (3)

CMST 191 Introduction to Public Speaking (3)

For the University of Wisconsin-Madison
ENG 111 College Reading and Writing (4)

Social Sciences - 9 S.H.

- ECON 201 Principles of Microeconomics (3)
- PSY 210 General Psychology (3)
- SOC 150 Introduction to Sociology (3)

Ethnic Studies - 3 S.H.

For the University of Wisconsin-Madison
SOC 340, ENG 220, HIST 220, OR HIST 235

Students must choose additional elective courses from the social sciences and the humanities. Students should consult with their advisor for recommendations on these electives. Students not meeting the prerequisites for MATH 160 must take additional lower-level math courses. Students exempted from ENG 111 must elect higher-level English courses.

PRE-PHYSICAL THERAPY

Admission into a graduate school of physical therapy 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 and allows application to and successful admission into a physical therapy program upon graduation from WSU. The Department of Biology and the Department of Health, Exercise and Rehabilitative Sciences have advisors available to assist students in planning their programs of study for pre-physical therapy.

Biology

Pasteur Hall, Room 220 (507) 457-5271
http://bio.winona.edu/biohp/acad_deg.htm
Dr. Edward Thompson, Advisor

- Admission to a graduate-level physical therapy program is very competitive; the minimum requirements are:
- Biology: 12 S.H., including a complete introductory course in the principles of biology and advanced coursework in biology, which builds upon the introductory courses.
 - Chemistry: 12 S. H., consisting of a complete introductory course in the principles of chemistry and organic chemistry.
 - Physics: 8 S. H., consisting of a complete introductory course.
 - Psychology: 6 S. H.
 - Human Anatomy: 3 S. H.
 - Human Physiology: 3 S. H.
 - Statistics: 3 S.H.
 - Mathematics: 3 S. H. of college trigonometry or higher (calculus is usually required).
 - English composition and literature: 8 S. H.
 - A GPA of 3.5 or better, a GRE (general test) of 1000 (verbal and quantitative).
 - A genuine interest in people and the health of others, especially as shown by about six months of involvement (volunteer or otherwise) in patient care and/or research at a health care facility.

All physical therapy schools require upper-division courses in biology such as histology, endocrinology, genetics, microbiology, parasitology, molecular biology, neuroscience, cell biology, cell physiology and embryology. They also require additional upper-level courses such as biochemistry, kinesiology, and physiology of exercise. 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, pharmacology, and pathophysiology whenever possible.

Most pre-physical therapy students at WSU major in either the Biology program's Allied Health option or Cell and Molecular option; both options are described in the Biology Department section on page 55. These biology major programs do not require a minor and provide the student with extensive training in the life and physical sciences as well as mathematics. With the biology major, the student is eligible to apply to master's and doctorate physical therapy programs.

When they arrive on campus, students who are interested in entering a physical therapy program after graduation should meet with the pre-physical therapy advisor, Dr. Thompson, to plan their programs of study. Pre-physical therapy students are encouraged to apply to the graduate school of their choice early in their senior year.

Health, Exercise and Rehabilitative Sciences

Memorial Hall, Room 103 (507-457-5219)
<http://www.winona.edu/hers/>
gkastello@winona.edu
Dr. Gary Kastello, Advisor

The Department of Health, Exercise and Rehabilitative Sciences (HERS) provides additional opportunities for pre-physical therapy majors via the Movement Science option (page 124). Without exception, admission into physical therapy requires a bachelor's degree. The bachelor's degree needs to meet prerequisites for a graduate physical therapy program. These prerequisites include a well-rounded offering of courses from the natural and life sciences, movement science, and nursing. The Movement Science major is specifically designed to meet the prerequisites for master's and doctoral physical therapy programs. In addition to the core courses in Health, Exercise & Rehabilitative Sciences, each student is required to develop an appropriate movement science research project. The specifically designed curriculum coupled with undergraduate research experience places these students in an excellent position for matriculation into the physical therapy graduate program of their choice.

Dr. Gary Kastello is available to advise students on career opportunities in physical therapy. Dr. Kastello has an M.S. in Exercise Physiology, a Ph.D. in Biological Science, and two years of teaching experience in a Physical Therapy Program.

The required courses within the HERS Movement Science option are as follows:

Health, Exercise and Rehabilitative Sciences - HERS (43-46 S.H.)

- 204 Personal and Community Health (3)
- 205 Nutrition for Lifetime Wellness (3)
- 235 Professional Issues in Exercise Science (3)
- 280 Techniques in Fitness Programming (2)
- 291 Prevention and Care of Athletic Injuries (2)
- 314 Anatomical Kinesiology (2)
- 340 Physiology of Exercise (4)
- 360 Nutrition for the Physically Active (3)
- 364 Practicum in Movement Science (1-3)
- 370 Mechanical Kinesiology (3)
- 380 Lab Methods in Exercise Science (3)
- 389 Strength and Conditioning Principles (3)
- 390 Movement Science Research and Design (3)
- 403 Epidemiology (3)
- 412 Movement Science Data Collection (2)
- 445 Medical Aspects of Exercise (3)

Physical Education and Recreation - PER (3 S.H.)

- 300 Motor Learning (3)

Biology - BIOL (12 S.H.)

- 211 Anatomy and Physiology I (4)
- 212 Anatomy and Physiology II (4)
- 241 Basics of Life (4) OR
- 242 Organismal Diversity (4)

Nursing - NURS (4 S.H.)

- 360 Pharmacology (1)
- 366 Pathophysiology (3)

Mathematics/Statistics (7 S.H.)

- STAT 110 Statistics (3)
- MATH 120 Precalculus (4)

Psychology - PSY (12 S.H.)

- 210 General Psychology (3)
- 250 Developmental Psychology (3)
- 420 Abnormal Psychology (3)

Chemistry - CHEM (8 S.H.)

- 212 Principles of Chemistry I (4)
- 213 Principles of Chemistry II (4)

Sociology - SOC (3 S.H.)

- 150 Introduction to Sociology (3)

Computer Sciences - CS (3 S.H.)

- 130 Introduction to BASIC Programming (3) OR
- 116 Web Technology (3)

PRE-PHYSICIAN ASSISTANT

Science Laboratory Center, Room 289B (507) 457-5272
Dr. David Essar, Advisor

The course of study is designed according to the school chosen by the student. A complete list of accredited physician assistant programs can be found at <http://www.aapa.org/pgmlist.php3>. 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. Most physician assistant programs require a bachelor's degree for admission. Students should meet early with an advisor to plan their programs of courses.

* "Additional Requirements" course as defined in Item 3, page 19.

PRE-PODIATRY

Pasteur Hall, Room 220, (507) 457-5271
http://bio.winona.edu/biohp/acad_deg.htm
Dr. Edward Thompson, Advisor

With few exceptions, podiatry schools require completion of a bachelor's degree or its equivalent before admission. Therefore, each pre-podiatry student should choose an area of interest in which to major. However, because entrance requirements vary among podiatry schools, the course of study will be specifically designed according to the graduate school the student chooses. 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 study.

PRE-VETERINARY MEDICINE

Stark Hall, Room 203K, (507) 457-5855
http://bio.winona.edu/biohp/acad_deg.htm
Dr. Emmanuel Brako, Advisor

This program is designed for entry into the University of Minnesota (U of M) 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.

All applicants must take the Graduate Record Examination (GRE). Applicants must also apply through the Veterinary Medical College Application Service (VMCAS), and they must meet the application deadline of October 1. For general admission and other useful information, applicants are encouraged to visit the VMCAS website at www.AAVMC.org; then click on VMCAS. 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 study.

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 requirements in this catalog.

Biology

- BIOL *241, *242 Basics of Life, Organismal Diversity (8)
- BIOL 310 Genetics (3)
- BIOL 319 Vertebrate Biology (4)
- BIOL 409 General Microbiology (4)

Chemistry

- CHEM *212, *213 Principles of Chemistry I, II (8)
- CHEM 350, 351 Organic Chemistry I, II (9)
- CHEM 400 Biochemistry (4)

Communication Studies

- CMST 191 Introduction to Public Speaking (3)

English

- ENG 111 College Reading and Writing (4)

Mathematics

- MATH 120 Precalculus (4) OR MATH 160 Calculus I (4)

Physics

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

Electives

- STAT 110, Fundamentals of Statistics, (3) is recommended by the University of Minnesota College of Veterinary Medicine.
- 12 to 18 elective credits to be chosen from the two groups below:
 - History and Social Sciences (6-9 credits): Economics (recommended), geography, history, political science, psychology, sociology.
 - Arts and Humanities (6-9 credits): Art, literature, music, philosophy, theater. The U of M College of Veterinary Medicine does not accept introductory and intermediate language courses as arts and humanities courses. (Additional courses are required for students who do not earn a bachelor's degree at WSU; see the *U of M College of Veterinary Medicine Catalog*.)

PROFESSIONAL STUDIES

Somsen Hall, Room 109 (507-457-5080)
Dennis Martin (Advisor)

PURPOSE

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 personnel within the Outreach and Continuing Education Department. When declaring the major, students must submit a statement of their goals and objectives for the major; this statement will be reviewed by the advisor and retained in the student's file.

B.A. MAJOR PROFESSIONAL STUDIES: GENERAL OPTION (PSGE)

48 S.H. Upper-Division Courses (300- and 400-level)

This program allows students to create a major utilizing several departments to meet their particular educational goals. Students may declare up to two minors within the requirements of this major.

REQUIREMENTS

- For a checklist of the University's graduation requirements, see page 22. For the professional studies majors/minor, students must:
- Complete the standard WSU University Studies program, 48 upper-division credits, and electives to reach a minimum of 128 credits. It is expected that all course prerequisites will be completed.
 - Complete all University Studies Flag course requirements.
 - Submit a statement of goals and objectives for the major; this statement will be retained in the student's file.
- A maximum of 9 credits applying to the major may be taken on a P/NC basis. All other WSU policies apply.

B.A. MINOR - PROFESSIONAL STUDIES (PS)

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 in which 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 semester hours must be upper-division courses (300- and 400-level)
- 6 semester hours may be any level

ADDITIONAL REQUIREMENTS

Students declaring the professional studies minor must have on file a statement of goals and objectives for the minor.

B.A. MAJOR PROFESSIONAL STUDIES: AVIATION MAINTENANCE MANAGEMENT OPTION (PSAM)

Degree program: 128 S.H.; Certification pending: 138 S.H.
(No Minor Required)

Pasteur Hall, Room 114D (507-457-5260)
George Bolon (Advisor)

FACULTY

George Bolon, Professor, Physics; B.S., M.S., Oregon State University;
Ph.D., University of Utah; 1968 -

PURPOSE

The Professional Studies 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, and corporate and commercial aviation.

This option is open to students who have completed the aviation maintenance program at the Minnesota State College-Southeast Technical (Red Wing); however, other students may petition for admission. Forty credits can be transferred from the technical college and applied toward this option.

There are six aspects to this degree program: (1) University Studies, (2) management core, (3) advanced aviation courses, (4) computer understanding and application, (5) the upper-division electives, and (6) technical college transfer credits, which are limited to 40 credits.

UNIVERSITY STUDIES (47 S.H.)

BASIC SKILLS (12 S.H.)

ARTS AND SCIENCES CORE (23 S.H.)

Humanities (6 S.H.)

Natural Sciences (8 S.H.)

CHEM 212 Principles of Chemistry (4)

PHYS 201 General Physics I (4)

Social Science (6 S.H.)

PSY 210 General Psychology (3)

ECON 201 Principles of Microeconomics (3)

Fine and Performing Arts (3 S.H.)

UNITY AND DIVERSITY (12 S.H.)

Critical Analysis (3 S.H.)

Science and Social Policy (3 S.H.)

Global or Multicultural Perspectives (3 S.H.)

Contemporary Citizenship or Democratic Institutions (3 S.H.)

USP Flag Requirements (12 S.H.)

MANAGEMENT (18 S.H.)

☞ BUSA 220 Business Statistics (3)

MKTG 300 Principles of Marketing (3)

BUSA 301 Business Law I (3)

MGMT 315 Principles of Management (3) OR

☞ MGMT 317 Management of Human Resources (3)

OM 334 Production/Operations Management (3)

MIS 362 Management Information Systems (3)

AVIATION (12 S.H.)

PHYS 200 Fundamentals of Aviation (3)

PHYS 205 Airspace, Communications and Regulations (1)

PHYS 383 Air Traffic Control (3)

PHYS 387 Flight Safety (3)

PHYS 388 Legislative and Legal Aspects (2)

COMPUTER APPLICATION (6 S.H.)

CS 130 Introduction to BASIC Programming (3) OR

MIS 312 Business Computer Programming (3)

Any computer science elective and/or

MIS 202 Microcomputers in Business (3)

UPPER-DIVISION ELECTIVES (5 S.H.)

These electives must be approved by AWS faculty advisor.

TECHNICAL COLLEGE TRANSFER (40 S.H.)

ADDITIONAL REQUIREMENTS FOR CERTIFICATION (10 S.H.)

STAT 110 Fundamentals of Statistics (3) OR

BUSA 320 Intermediate Business Statistics (3)

PHYS 202 General Physics II (4)

MATH 140 Applied Calculus (3)

PSYCHOLOGY

Phelps Hall, Room 231 (507-457-5435)

www.winona.edu/psychology

Kerry Williams (Chairperson)

FACULTY

Richard A. Deyo, Professor; B.S., Viterbo College; M.A., Ph.D., Bowling Green State University; 1990 -

Carrie Fried, Associate Professor; B.S., Iowa State University; M.S., Ph.D., University of California; 1999 -

John Johanson, Associate Professor; B.S., University of South Dakota; M.A., University of Nebraska-Omaha; Ph.D., University of Nebraska; 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, Professor; B.S., National Autonomous University of Mexico; M.S., Ph.D., University of Wisconsin-Madison, 1994 -

Peter K. Miene, Professor; B.A., University of Kansas-Lawrence; Ph.D., University of Minnesota-Twin Cities; 1992 -

Charles Schreiber, Assistant Professor; B.A., Pitzer College; Ph.D., University of California, Berkeley; 2005 -

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.S., University of Washington; M.A., Ph.D., University of Illinois; 1981 -

PURPOSE

Psychology is the science of behavior, including mental processes. The department's goal is to foster students' understanding of the many factors that 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 that emphasize interpersonal skills, or they want to better understand themselves as well as others.

Those majoring in psychology can choose between Option A and Option B. Option A is attractive because its semester-hour requirement allows students to combine a major in psychology with one or more additional majors or minors. 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 (PSY 231), Experimental Psychology (PSY 308), and Experimental Psychology Lab (PSY 309) 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 that 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, including but not limited to the following: clinical or counseling psychologist, child psychologist, school psychologist, industrial/organizational psychologist, rehabilitation counselor, experimental psychologist, and college professor.

SCHOLARSHIPS

The Psychology Department offers two scholarships. Contact the department for additional information.

- Psychology Department Alumni and Friends Scholarship: Junior psychology majors may apply for this scholarship. Applications are taken early in the spring semester.
- Ardis Serafin Young Scholarship: Students in psychology or biology may apply for this scholarship, which is designed to support an advanced student research project. Preference is given to projects that focus on health-related issues; however, projects in other areas will also be considered.

PASS/NO CREDIT (P/NC) COURSES

Except for independent study, PSY 400, majors and minors must take all psychology courses on a grade-only basis. The P/NC option is available in PSY 210 for non-majors and non-minors.

COURSE REPETITION POLICY

Students may not enroll in any psychology course more than three times whether due to official withdrawal (W) or a grade less than "C."

ADDITIONAL GRADUATION REQUIREMENTS

For a checklist of the University's graduation requirements, see page 22. Specific requirements for psychology majors/minors are as follows:

- 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-level) 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 PSY 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 (page 42).

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. Students are responsible for applying to the Department Chairperson through their academic advisor and meeting all the departmental requirements for graduation with Honors in Psychology. The requirements for Honors in Psychology are:

1. Declaration of a major in psychology.
2. Active membership in Psi Chi, the National Honorary Society in Psychology.
3. Completion of a research paper based on work in PSY 400 or PSY 408.
4. Presentation of the research results at an appropriate conference.
5. A recommendation for Honors in Psychology from the Psi Chi advisor, the student's research advisor, and the student's academic advisor.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Psychology Department offers the following flag courses in the University Studies Program:

FLAG

Oral

- PSY 309 Experimental Psychology Lab (2)
- PSY 311 Careers in Psychology (1)
- PSY 431 Counseling and Clinical Psychology (3)

Math/Critical Analysis

- PSY 231 Statistics (3)

Writing





- PSY 350 Psychological Testing and Measurement (3)
- PSY 434 History and Systems of Psychology (3)

Flag courses that can be used to satisfy psychology major/minor requirements are identified in the lists of required courses and electives in this section.

B.A. MAJOR - PSYCHOLOGY: OPTION A (PSYA)

35 S.H. (Minor Required)

REQUIRED COURSES - PSY (17 S.H.)

- 210 General Psychology (3)
-  231 Statistics (3)
- 308 Experimental Psychology (3)
-  309 Experimental Psychology Lab (2)
-  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 (PSYB)

50-51 S.H. (No Minor Required)

CORE REQUIRED COURSES (17 S.H.)

- 210 General Psychology (3)
-  231 Statistics (3)
- 308 Experimental Psychology (3)
-  309 Experimental Psychology Lab (2)
-  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 (6 S.H.)

Students must take an additional English course and an additional statistics course from the list provided:

English (3 S.H.)

- ENG 210 Advanced Expository Writing (3) OR
- ENG 211 Writing in Communities (3) OR
-  ENG 439 Technical Writing (3)

Statistics (3 S.H.)

- STAT 310 Intermediate Statistics (3) OR
 STAT 360 Regression Analysis (3), OR
 STAT 365 Experimental Design and Analysis (3) OR an approved substitute

B.A. MINOR - PSYCHOLOGY (PSY)

21 S.H.

REQUIRED COURSES (3 S.H.)

- PSY 210 General Psychology (3)

ELECTIVES (18 S.H.)

Psychology electives to total at least 18 S.H.

COURSE DESCRIPTIONS (PSY)**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, linear regression, parametric and non-parametric tests of significance. Prerequisite: PSY 210 and completion of Math/Statistics Basic Skills Requirement. Grade only. Offered each semester.

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. Grade only. Offered each semester.

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.). Grade only. Offered each semester.

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. Grade only. 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. Grade only. Offered yearly.

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. Also includes a discussion of neurological and psychological disorders and the diseases of aging. Prerequisite: PSY 210. Grade only. Offered yearly.

305 - Theories of Personality (3 S.H.)

A survey of major theoretical perspectives. Personality theory, research, and assessment are considered from a variety of viewpoints including the psychodynamic, behavioral, dispositional, and phenomenological perspectives. Prerequisite: PSY 210. Grade only. Offered each semester.

308 - Experimental Psychology (3 S.H.)

Introduction to scientific methods and research techniques in psychology. Prerequisites: PSY 210, PSY 231 and concurrent enrollment in PSY 309. Grade only. Offered each semester.

309 - Experimental Psychology Lab (2 S.H.)

A laboratory class to accompany PSY 308 (Experimental Psychology). Students will gain experience in designing, conducting, analyzing, and reporting the results of experimental research in psychology. Prerequisites: PSY 210, PSY 231, and CMST 191. Concurrent enrollment in PSY 308 is required. Grade only.

311 - Careers in Psychology (1 S.H.)

An introduction to and examination of career options for students of psychology and related disciplines. Topics include job opportunities for those with a bachelor's degree in psychology and how to prepare for and choose graduate programs. Prerequisites: 9 credit hours in psychology and CMST 191. 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. Grade only. Offered each semester.

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 eyewitnesses, expert witnesses, the identification and evaluation of suspects, jury trials, capital punishment, and current topics. Prerequisite: PSY 210. Grade only. Offered each semester.

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. Grade only. Offered yearly.

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, ENG 111. Grade only. Offered each semester.

360 - Personnel Psychology (3 S.H.)

Analysis and review of applied psychology in the field of work including job analysis, personnel selection, performance evaluation, training design and evaluation, job design, human engineering, fatigue, safety and physical working conditions. Prerequisite: PSY 210. Grade only. Offered yearly.

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.). Grade only. Offered yearly.

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. Teaching assistantships and field experience may be available but only on a P/NC basis. Only 6 S.H. credits of PSY 400 may count toward a psychology major. Only 3 S.H. may count toward the psychology minor. Prerequisites: PSY 210 and as determined by the instructor. Offered each semester.

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, PSY 231, PSY 308, and PSY 309. Grade only. Offered yearly.

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, and skin senses including pain, orientation, and time perception. Both theory and applications to other disciplines and everyday life are addressed. Prerequisite: PSY 210. Grade only. Offered yearly.

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. Grade only. Offered every two years.

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. in psychology. Grade only. Offered each semester.

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. Grade only. Offered every two years.

423 - Psychopathology of Childhood (3 S.H.)

Examines classification of disorders in children and adolescents. Core

* "Additional Requirements" course as defined in Item 3, page 19.

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. Grade only. Offered yearly.

424 - Women and Mental Health (3 S.H.)

Diagnosis and treatment are 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. in psychology and PSY 275 (or WS 148) or instructor's permission. Grade only. Offered yearly.

425 - Organizational Psychology (3 S.H.)

An analytical survey of theory and research in organizational socialization, decision-making, motivation, leadership and the use of power and authority, communication, organizational change and development, and the evaluation of organizational effectiveness. Prerequisite: PSY 210. Grade only. Offered yearly.

430 - Forensic Psychology (3 S.H.)

A seminar examining issues at the intersection of clinical psychology and the legal system. Topics include criminal psychology, insanity and competency, risk assessment, the psychology of victims, issues involving children, civil law issues, and other current topics. Prerequisite: PSY 210. PSY 330 is recommended, but not required. Grade only. Offered yearly.

431 - Counseling and Clinical Psychology (3 S.H.)

Issues of clinical and counseling practice include ethics, theoretical perspectives, clinical research, diversity, and managed care. Practice in interviewing strategies is included, and career choices are examined. Prerequisites: PSY 210 and PSY 420. Grade only. Offered yearly.

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. in psychology including PSY 303 or 9 S.H. in biology. Grade only. Offered yearly.

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. Majors are encouraged to complete all other core requirements before registering in PSY 434. Prerequisite for non-majors: ENG 111, minimum of 12 S.H. in psychology. Prerequisites for majors: ENG 111, PSY 210, PSY 231, PSY 308, and a minimum of two other courses in psychology (6 S.H.). Grade only. Offered each semester.

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. Grade only. Offered yearly.

RESIDENTIAL COLLEGE

Lourdes Hall (507-457-2500)
Ronald Elcombe, Director

FACULTY

Linda D'Amico, Associate Professor; B.S., M.A., Ph.D., Indiana University; 2000 -
Daniel Eastman, Professor; B.A., Western Washington University; M.F.A., Wayne State University; M.F.A., Bard College; 1989 -
Ronald Elcombe, Professor; B.S., University of Minnesota-Twin Cities; M.M., Mankato State University; Ph.D., The Union Institute; 1991 -

PURPOSE

The mission of the Residential College is to provide an enhanced learning environment for highly motivated students to promote excellence in the achievement of their undergraduate education within a living and learning community.

The Residential College offers students both housing and a unique educational opportunity. Students are encouraged to discover the love of learning, tolerance for individual differences, and benefits of a liberal arts education by developing their talents through participation in a topical interdisciplinary curriculum that emphasizes in-class and extracurricular learning. The relaxed residential environment of the Residential College creates an atmosphere of collaborative learning. In addition to living and learning communities, Residential College students have the opportunity to participate in a variety of co-curricular activities. The Residential College is located in Lourdes, Maria, and the Tau Center residence halls.

COURSE DESCRIPTIONS (RESC)

150 - Insights and Implications (3 S.H.)

In this course, students will have an opportunity to integrate the perspectives and information offered in interdisciplinary clusters of courses. Students will also apply those perspectives and information in discussions and a term project focused on a contemporary issue related to the cluster theme. Course topics will vary.

232 - Interdisciplinary Approach an Overview of Latin America and the Caribbean (3 S.H.)

The Latin America -Caribbean region is one of the world's most misunderstood regions. Geographically, this region is very complex and culturally diverse; historically, it has been the scene of constant abuse and violent changes. In this introductory course, a global explanation of the processes that link the three major cultural groups (indigenous peoples, Afro-Americans, and Iberian or Portuguese settlers) will be explored. The interactions will be examined within social, historical, and ethnographic contexts. Grade only. Offered every other year.

233 - Interdisciplinary Approach to Latin American and Caribbean Immigrants in U.S. Society (3 S.H.)

This course focuses on immigration as a process, not an event, and on the diversity of the Hispanic experience in the U.S. It integrates historical, economic, and cultural sources to achieve a broad perspective in understanding the fastest growing ethnic group in the 21st century. Grade only. Offered every other year.

234 - Interdisciplinary Approach to Gender and Latin American Society through 20th Century Literature (3 S.H.)

Latin American literature conveys a vibrant sense of social history and nuanced perspective of gendered realities. This course will explore 20th century writers from Chile, Uruguay, and El Salvador as a means to better comprehend the underlying worldviews, social structure, and gender relations. Grade only. Offered every other year.

235 - Interdisciplinary Approach to Women and Social Justice Issues in Latin America (3 S.H.)

This course demonstrates how ordinary women have had transformational roles in the social and political spheres of their countries. It will explore how women have chosen to participate in collective action in Chile, Guatemala, El Salvador, and Mexico to address human rights issues and how family values can become a part of public life. Recommended Prerequisite: SOC 150. Grade only. Offered every other year.

SOCIAL SCIENCE/HISTORY

(Secondary Social Studies Teaching)
 Minné Hall, Room 212, (507) 457-5400
 Email: mlindaman@winona.edu
 Matthew Lindaman, Program Director

FACULTY

Matthew Lindaman, Assistant Professor; B.A., M.A., University of Northern Iowa; Ph.D., University of Kansas, 2002 -

PURPOSE

This program is designed for prospective middle level and high school teachers. WSU established the major to meet the secondary social studies teacher certification requirements for the state of Minnesota.

Students who wish to teach high school-level history or government or geography or another social science field need to complete this program and the other requirements for a so-called “broad field” teaching license for secondary social studies. Minnesota and other surrounding states do not offer secondary-level licenses to teach only history or any of the other traditional social science disciplines by themselves.

PASS/NO CREDIT (P/NC) 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.

EDUCATION DEPARTMENT COURSES & OTHER REQUIREMENTS FOR TEACHING LICENSURE

Students should consult the Education Department section of this catalog (page 84) and the Education Department office (Gildemeister Hall, Room 152) for information concerning:

- The Professional Education Sequence of education courses required of students who wish to become licensed as 5-12 (middle and high school) teachers.
- The admission process required to enter the Professional Education Sequence.
- Other required courses outside the Education Department (such as HERS 204, Personal and Community Health, and work in the field of special education).
- Other requirements that students must complete in order to qualify for a Minnesota social studies teaching license.

Social science/history students will have an opportunity to acquire the experience with educational technology required for a Minnesota teaching license in EDUC 331, Teaching Social Studies in Secondary Schools. Students who need to complete the University Studies program should consult the Social Science/History Program Director concerning the required Flag courses.

B.S. MAJOR - SOCIAL SCIENCE/HISTORY (Secondary Social Studies Teaching) (SSHT)

81-83 S.H. (No Minor Required)

REQUIRED COURSES (66-68 S.H.)

Anthropology (3 S.H.)

SOC 340 Social-Cultural Anthropology (3)

Economics (6 S.H.)

- * ECON 201 Principles of Microeconomics (3)
- * ECON 202 Principles of Macroeconomics (3)

Geography (12 S.H.)

- * GEOG 110 World Regional Geography (3)
- GEOG 211 Economic Geography (3)
- * GEOG 212 Physical Geography (3)
- * GEOG 213 Cultural Geography (3)

History (12 S.H.)

Two of the following:

- * HIST 150 U.S. History to 1865 (3)
- * HIST 151 U.S. History Since 1865 (3)
- * HIST 214 The Mississippi River in U.S. History

And select two of the following:

- * HIST 120 Western Civilization to 1500 (3)
- * HIST 121 Western Civilization, 1500-1815 (3)
- * HIST 122 Western Civilization, 1815-Present (3)

Political Science (9 S.H.)

- * POLS 120 Introduction to American Politics (3)
- * POLS 130 Introduction to International Relations (3)

One of the following:

- POLS 135 Comparative Political Systems (3)
- * POLS 150 Introduction to Political Theory (3)

Psychology (3 S.H.)

- * PSY 210 General Psychology (3)

Sociology (3 S.H.)

- * SOC 150 Introduction to Sociology (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 I - Secondary (3) OR
- SOC 376 Introduction to Social Research (3) OR
- † PSY 308 Experimental Psychology (3); PSY 309 Experimental Psychology Lab (2)

Global Perspectives (3 S.H.)

Note: Students in the program will complete the University Studies global or multicultural perspectives requirements by taking one of the following courses:

- † HIST 123 East Asian Civilization (3)
- † HIST 165 Latin American History (3)
- † HIST 170 African Civilization (3)

Education (3 S.H.)

EDUC 331 Teaching Social Studies in Secondary Schools (3)

†Course may be used to satisfy certain Unity and Diversity requirements in the University Studies Program.

ELECTIVES (18 S.H.)

Students complete a concentration of 18 semester hours at the 300- or 400-level 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.

* “Additional Requirements” course as defined in Item 3, page 19.

SOCIAL WORK

Minné Hall, Room 228 (507-457-5420)
University Center Rochester, ST-129 (507-280-5049)
www.winona.edu/socialwork/default.htm
John Burdick (Chairperson)

FACULTY

John E. Burdick, Professor; B.A., Allegheny College; M.S.W., State University of New York-Buffalo; 1984 -
Arlen Carey, Assistant Professor; B.A., M.A., Ph.D., University of Texas-Austin; M.S.W., University of Central Florida, Orlando; 2004 -
Ruth A. Charles, Associate Professor; B.A., Gordon College; M.S.W., Ph.D., Syracuse University; 1997 -
John W. Collins, Associate Professor; B.A., Tarkio College; M.S., University of Minnesota; Ph.D., Saint Louis University; 1993 -
Cathy Jo Faruque, Associate Professor; B.S., Winona State University; M.S.W., San Diego State University; Ph.D., North Central University, 1997 -
Carole Madland, Associate Professor; M.S.W., University of Tennessee-Nashville; B.A., Ph.D., Washington University (St. Louis, Missouri); 1991 -

PURPOSE

The WSU Bachelor of Science in Social Work (BSW) Degree Program prepares students for beginning, generalist professional Social Work practice. The program is fully accredited by the Council on Social Work Education. The Social Work Program serves students on both the Winona and Rochester campuses.

In many states, a license is required to practice Social Work, and a Bachelor of Social Work (BSW) degree from an accredited Social Work Program is required for licensure. Students who graduate with a BSW degree are eligible for advanced standing when applying to most graduate schools. Advanced standing allows BSW graduates to waive some graduate level courses while working on a Master of Social Work (MSW) degree. Therefore, BSW graduates can finish most MSW programs in one year; however, the requirements vary from one institution to another.

ADMISSION

Admission to the Bachelor of Social Work Program is a procedure separate from WSU admission and from major declaration. The BSW admission process takes place during the second semester of the student's sophomore year. Specific eligibility requirements in addition to the academic requirements for both admission and retention must be met. The application materials containing the requirements, instructions, deadlines, and forms can be found in the *Social Work Handbook* and on the Social Work Department web page.

Required foundation courses are to be completed prior to admission to the social work program. Students will not be admitted to the program unless they satisfy the department's admission requirements by the end of the semester in which they apply. (Spring semester applicants have until the end of the next summer session to satisfy admission requirements.) Admission is competitive; therefore, some applicants may not be admitted. Social work faculty members are available to assist prospective social workers with the admission 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 and is based on satisfactory completion of required courses and evaluation scores obtained in the admission process. Acceptance into the BSW program is the prerequisite for SOCW 365 and SOCW 370; it is also a prerequisite for enrollment in all required social work courses except SOCW 340 and SOCW 350.

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 SOCW 350. Admission is based on fulfillment of the course requirements specified above and the evaluation score obtained during the BSW acceptance process. Students should contact their advisor for further information on this process.

ACADEMIC STANDARDS

Students must have a "C" or better and an overall GPA of 2.5 in all courses considered for BSW Program admission. In addition, students must also maintain a 2.5 GPA and a "C" or better in all courses required within the major.

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. SASW is available to students on the Rochester and Winona campuses. Membership is strongly encouraged.

PASS/NO CREDIT (P/NC) COURSES

Except for field experiences and internships, students must take all courses on a grade-only basis. Only grades of "C" or better in courses offered in the department can be used to meet major and minor requirements.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Department of Social Work offers the following flag courses in the University Studies Program:

FLAG

Oral

SOCW 340 Introduction to Social Work and Social Welfare (3)

Math/Critical Analysis

SOCW 410 Analysis of Social Welfare Policy (3)

Writing

SOCW 390 Social Work Research: Process & Skills (3)

SOCW 480 Integrative Social Work Seminar (3)

Flag courses that can be used to satisfy Social Work major/minor requirements are identified in the lists of required courses and electives.

B.S. MAJOR - SOCIAL WORK (SOCW)

(CSWE Accredited)

64 S.H. (No Minor Required)

REQUIRED FOR ADMISSION TO BSW PROGRAM

English (3 S.H.)

ENG 111 College Reading and Writing (3)

Oral Communication (3 S.H.)

CMST 191 Introduction to Public Speaking (3)

REQUIRED FOUNDATION COURSES (18 S.H.)

SOCIAL SCIENCES (15 S.H.)

Psychology (6 S.H.)

PSY 210 General Psychology (3)

PSY 250 Developmental Psychology (3)

Sociology (3 S.H.)

SOC 150 Introduction to Sociology (3)

Social Work (6 S.H.)

 SOCW 340 Introduction to Social Work (3)

SOCW 350 Field Experience (3)

NATURAL SCIENCES


Biology (3 S.H.)

* BIOL 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.)

 SOCW 390 Social Work Research Process and Skills (3)

Diversity Component (3 S.H.)

- SOC 340 Cultural Anthropology (3)
 SOC 423 Race Relations (3)
 SOCW 435 Social Work Practice with Diverse Populations (3)
 WS 220 Power, Privilege and Gender (3)
 CMST 281 Intercultural Communication (3) OR (usually used in Rochester 2+2 Program): Minority Group Relations (RCTC) Cultural Anthropology (RCTC)
 Cultural Diversity (Riverland Community College)

Social Work - SOCW (37 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 (4)
 410 Analysis of Social Welfare Policy (3)
 415 Social Work Practice III - Organizations and Communities (3)
 475 Social Work Senior Practicum (12)
 480 Integrative Social Work Seminar (3)

Note: SOCW 475 is an extended application of practical experience within a social service agency. Restricted to senior social work majors.

COURSE DESCRIPTIONS (SOCW)

All courses in the major, minor, options, concentrations and licensures must be taken on a grade-only basis except internships and field experiences.

340 - Introduction to Social Work and Social Welfare (3 S.H.)

This course looks at the profession of social work and U.S. social welfare policy, both historically and in the present. Grade only. Offered each semester on the Winona campus; offered in the spring semester only on the Rochester campus.

365 - Social Work Practice I - Ethics and Interviewing (3 S.H.)

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: Admission to the program. Limited to 25 students. Grade only. Offered each semester on the Winona campus; offered in the fall semester only on the Rochester campus.

370 - Human Behavior and the Social Environment (3 S.H.)

This course offers 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. Prerequisite: Admission to the program. Grade only. Offered each semester on the Winona campus; offered in the fall semester only on the Rochester campus.

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: Admission to the program or instructor's permission. Grade only. Offered each semester on the Winona campus; offered in the spring semester only on the Rochester campus.

385 - Social Work Practice II - Families and Groups (3 S.H.)

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. Prerequisites: SOCW 365 and admission to the program. Grade only. Offered each semester on the Winona campus; offered in the spring semester only on the Rochester campus.

390 - Social Work Research: Process and Skills (3 S.H.)

This is an introductory course in social work research. The focus is on the relationships, process, and skills which are used to evaluate social work practice. The students work in groups with a variety of human service organization practitioners to gather data to answer research questions related to the organization. Prerequisite: SOCW 365 and admission to the program. Corequisite: Winona campus-SOCW 385; Rochester campus-SOCW 365. Grade only. Offered each semester on the Winona campus; offered in the fall semester only on the Rochester campus.

400 - Practicum Preparation (4 S.H.)

This course aims to facilitate students' preparation for the practicum experience. The course includes development of interview skills, resumé building, selection of a practicum placement site, development of a learning contract, and preparation of a capstone research project. Prerequisites: Admission in the program and completion of (or in the process of completing) all course work for graduation except Practicum and Seminar. Grade only. Offered each semester on the Winona campus; offered in the fall semester only on the Rochester campus.

410 - Analysis of Social Welfare Policy (3 S.H.)

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. Prerequisites: Admission to the program and successful completion of SOCW 380. Grade only. Offered each semester on the Winona campus; offered in the fall semester only on the Rochester campus.

415 - Social Work Practice III - Organizations and Communities (3 S.H.)
 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. Prerequisites: Admission to the program and successful completion of SOCW 385. This course is taken concurrently with SOCW 400. Grade only. Offered each semester on the Winona campus; offered in the fall semester only on the Rochester campus.

420 - Child Welfare (3 S.H.)

This course looks at the problems vulnerable children face and the skills, policies, and programs needed to serve them. Prerequisite: SOCW 340 or instructor's permission. Grade only.

425 - Law and Social Work (3 S.H.)

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: SOCW 340 or instructor's permission. Grade only.

430 - Aging: Policies and Services (3 S.H.)

This course covers the problems faced by elders and the policies and programs created to help elders. Prerequisite: SOCW 340 or instructor's permission. Grade only.

435 - Social Work Practice with Diverse Populations (3 S.H.)

This course is designed to introduce social work students to the field of social work and diverse populations. This course focuses on social work practice with individuals, families, groups, organizations, and communities with an emphasis on transcultural practice. Variables of race, ethnicity, gender, class, and sexual orientation are all considered as they relate to generalist social work practitioners. This course will examine individual and institutional racism, sexism, classism, and homophobia. Prerequisite: SOCW 340. Grade only.

440 - Variable Topics in Social Work (1-6 S.H.)

A seminar course that analyzes topics and problems from the social work perspective. (Topics will be chosen by the instructor and announced before registration.) Grade only.

445 - Globalization of Social Welfare (3 S.H.)

This course challenges the dominant paradigms that shape our increasingly small world. Examines the social consequences of international economic development and trade policies in social welfare and practice, and what can be done to prevent the erosion of the quality of life in our communities as a result of economic globalization. The course presents alternative paradigms for international and community economic development and suggests some of the roles for social work professionals as facilitators and partners in projects and processes of community empowerment across the globe. Prerequisite: SOCW 340. Grade Only.

450 - Independent Studies in Social Work (1-3 S.H.)

Intended to aid the student who has a special area of interest that goes beyond formal course limits. By arrangement. Grade only. Offered each semester.

460 - Special Projects in Social Work (1-3 S.H.)

For the student interested in pursuing an independent research project in social work. By arrangement. Grade only. Offered each semester.

480 - Integrative Social Work Seminar (3 S.H.)

This course provides the opportunity for students to integrate social work theory with the external world through in-depth discussions of their practice experiences and research projects. Corequisite: To be taken concurrently with SOCW 475. Grade only. Offered each semester and summer on one or both campuses.

SOCIAL WORK - FIELD COURSES

Note: All field courses require an additional fee to cover malpractice liability insurance.

350 - Field Experience I (3 S.H.)

This course provides 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. Prerequisite or corequisite: SOCW 340. May be taken twice for credit. P/NC only.

475 - Social Work Senior Practicum (12 S.H.)

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. Corequisite: To be taken concurrently with SOCW 480. P/NC only.

* "Additional Requirements" course as defined in Item 3, page 19.

SOCIOLOGY

Minné Hall, Room 228 (507-457-5420)

Criminal Justice: www.winona.edu/criminaljustice/default.htm

Sociology: www.winona.edu/sociology/default.htm

Helen Dachelet (Chairperson)

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 -

Helen Dachelet, Associate Professor; B.A., B.S., M.S., Winona State University; Psy.D., University of St. Thomas; 1996 -

Glen Just, Assistant Professor, Ph.D., South Dakota State University; 2001 -

James R. Kobolt, Associate Professor; B.A., M.P.A., Park College; 2000 -

Paul J. Munson, Associate Professor; B.A., Augustana; M.A., University of Denver; J.D., University of Denver; 1999 -

J. Mark Norman, Associate Professor; B.A., M.S., St. Cloud State University; Ph.D., South Dakota State University; 1996 -

Todd Paddock, Assistant Professor; B.S., University of Michigan; M.S., Cornell University; Ph.D., Indiana University; 2004 -

R. Stephen Schwartz, Professor; B.S., M.S., University of Oklahoma; Post-Graduate Certificate, University of

Zambia (University of London, external); Ph.D., University of Iowa; 1973 -

PURPOSE

Sociology and criminal justice students who complete one of these programs are well prepared for professional employment in administrative and management positions in the private and public sectors, law enforcement and corrections, social welfare and casework, and graduate school.

PASS/NO CREDIT (P/NC) COURSES

Except for field experiences and internships, students must take all courses on a grade-only basis. Only grades of "C" or better in courses offered in the department can be used to meet major and minor requirements.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Department of Sociology offers the following Sociology flag courses in the University Studies Program:

FLAG

Oral

SOC 405 Models and Strategies of Intervention (3)

SOC 474 Intervention with Families (3)

SOC 491 Community Policing & Administration (3)

SOC 499 Senior Seminar in Sociology (3)

Math/Critical Analysis

SOC 376 Introduction to Social Research (3)

Writing

SOC 377 Sociological Theory and Methods (3)

SOC 378 Laboratory in Social Research (3)

SOC 404 Law Enforcement Investigation and Communication (3)

SOC 407 Offender Assessment and Management (3)

SOC 418 Criminal Law and Procedure (3)

SOC 435 Family Roles and Relationships (3)

SOC 440 Sociology of Dying and Death (3)

SOC 450 Sociology of Aging (3)

Flag courses that can be used to satisfy Sociology major/minor requirements are identified in the lists of required courses and electives in this section.

B.A. MAJOR - SOCIOLOGY (SOC)

43 S.H. (Minor Required)

Sociology examines how social experiences shape beliefs and behavior. As one of the social sciences, sociology 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 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

1. Students must complete the B.A. Sociology foundation courses with a grade of "C" or higher.
2. Complete the program admission application form.

FOUNDATION COURSES TO BE COMPLETED PRIOR TO ADMISSION

English

† ENG 111 College Reading and Writing (4)

Sociology

SOC 150 Introduction to Sociology (3)

Statistics/Psychology

STAT 110 Fundamentals of Statistics (3) and STAT 115 Laboratory in Statistics (1) OR

 PSY 231 Statistics (3)

† Required for admission; however, the credits are not counted in the 43 credit hours needed in the major.

RETENTION AND GRADUATION REQUIREMENTS


Retention and graduation from the program requires that students meet the following requirements:


1. Maintain a minimum, cumulative GPA of 2.5 in all B.A. sociology courses taken at WSU.
2. Complete all sociology courses with a grade of "C" or higher.

B.A. SOCIOLOGY - GENERAL OPTION (SOC)

43 S.H. (Minor Required)

The following requirements are in addition to the Foundation courses:

 SOC 376 Introduction to Social Research (3)

 SOC 377 Theory and Methods in Sociology (3)

SOC 460 Internship (12)

ELECTIVES (18-19 S.H.)

Courses selected within the student's chosen area must come from the 300-level and above, be selected in consultation with the advisor, and contribute to meeting the goals of the sociology program.

B. A. SOCIOLOGY MAJOR - FAMILY STUDIES OPTION (SOCF)

43 S.H. (Minor Required)

In addition to the foundation courses, the following are also requirements:

- SOC 212 The Family (3)
- ☞ SOC 376 Introduction to Social Research (3)
- SOC 412 Sexuality in American Society (3)
- ☞ SOC 435 Family Roles and Relationships (3)
- ☞ SOC 450 Sociology of Aging (3)
- SOC 460 Internship (12)
- SOC 470 Mediation and Conflict Resolution (3)
- ☞ SOC 474 Intervention with Families (3)

ELECTIVES (3-4 S.H.)

Must be selected from 300-level and above in sociology.

B.A. SOCIOLOGY MAJOR - GERONTOLOGY STUDIES OPTION (SGER)

43 S.H. (Minor Required)

In addition to the foundation courses, the following are also requirements:

- SOC 212 The Family (3)
- ☞ SOC 376 Introduction to Social Research (3)
- SOC 434 Medical Sociology (3) or
- ☞ SOC 435 Family Roles and Relationships (3)
- ☞ SOC 440 Sociology of Dying and Death (3)
- ☞ SOC 450 Sociology of Aging (3)
- SOC 460 Internship (12)
- ☞ SOC 474 Intervention with Families (3)

ELECTIVES (3-4 S.H.)

Must be selected from 300-level and above in sociology.

B. A. SOCIOLOGY MAJOR - HUMAN SERVICES OPTION (SOCH)

43 S.H. (Minor Required)

In addition to the Foundation courses, the following are also requirements:

- SOC 314 Juvenile Delinquency (3)
- SOC 334 Sociology of Education (3)
- ☞ SOC 376 Introduction to Social Research (3)
- SOC 434 Medical Sociology (3)
- ☞ SOC 435 Family Roles and Relationships (3)
- SOC 438 Health and Human Service Organizations (3)
- ☞ SOC 450 Sociology of Aging (3)
- SOC 460 Internship (12)

ELECTIVES (3-4 S.H.)

Must be selected from 300-level and above in sociology.

B.A. SOCIOLOGY MINOR - GERONTOLOGY (SGER)

27 S.H.

REQUIRED COURSES (18 S.H.)

- SOC 150 Introduction to Sociology (3)
- SOC 385 or SOC 386 Field Experience (1-6)
- SOC 434 Medical Sociology (3)
- ☞ SOC 435 Family Roles and Relationships (3)
- ☞ SOC 440 Dying and Death (3)
- ☞ SOC 450 Sociology of Aging (3)

Note: Field experience is required for sociology students and all other students except nursing students. This is not meant as a substitute for SOC 460. Equivalency credit may be granted; see coordinator of gerontology minor (R. S. Schwartz).

ELECTIVES (9 S.H.)

Recommended electives are to be selected from 300-level or above in consultation with an advisor.

- SOC 340 Social-Cultural Anthropology (3)
- SOC 350 Population Analysis (3)
- SOC 412 Sexuality in American Society (3)
- SOC 421 Urban Sociology (3)

- SOC 425 Social Change and Social Movements (3)
- SOC 431 Social Class and Power (3 S.H.)
- SOC 488 Health and Human Services Organization

Other electives may be considered. See the coordinator of the gerontology program.

B.A. MINOR - SOCIOLOGY (SOCG)

18 S.H.

REQUIRED COURSES (9 S.H.)

- SOC 150 Introduction to Sociology (3)
- SOC 205 Social Interaction (3)
- SOC 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.

B.S. MAJOR - SOCIOLOGY: CRIMINAL JUSTICE (SCJC; SCJL)

62-63 S.H. No Minor Required

ADMISSION REQUIREMENTS

The B.S. Sociology: Criminal Justice major is designed to prepare students (1) 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 WSU Bookstore. The handbook includes specific requirements and application procedures. In addition to completing an application form, each student is responsible for meeting the following requirements.

ADMISSION AND ACADEMIC STANDARDS

1. Completion of ENG 111 or equivalent with grade no lower than a "C."
2. Completion of the four (4) admissions courses with a minimum GPA of 2.50 and with grades no lower than "C." There are no exceptions to this requirement.

Note: Although law violations are not included in the program's admission standards, students should be aware that law violations may limit employment opportunities.

RETENTION REQUIREMENTS

Once admitted to the program, students must demonstrate acceptable progress in order to remain in good standing. Acceptable progress is defined as meeting the following retention requirements:

1. Students must maintain a 2.50 cumulative GPA for all courses taken in the Criminal Justice Program at WSU.
2. Students must complete all coursework in the criminal justice program without a grade lower than a "C." If a student completes a course with a grade lower than "C," the student must repeat the course.
3. Students must maintain their portfolio at a level acceptable to their faculty advisor and must complete their portfolio prior to graduation. (The portfolio is a representation of the student's knowledge base and skills; it includes research papers, report writing, videotapes, etc.). Students should consult with their individual faculty advisors.

REQUIRED COURSES FOR BOTH TRACKS (30-31 S.H.)

Sociology/Psychology

- SOC 150 Introduction to Sociology (3)
- SOC 210 Introduction to Criminal Justice (3)
- SOC 205 Social Interaction (3) OR
- * PSY 210 General Psychology (3)

Political Science

- * POLS 120 Introduction to American Politics (3)

Note: A student must apply to the Criminal Justice Program upon completion of all 100- and 200-level courses listed above.

Statistics/Psychology

- STAT 110 Fundamentals of Statistics (3) and STAT 115 Laboratory in Statistics (1) OR
- ☞ PSY 231 Statistics (3)

Sociology

- SOC 314 Juvenile Delinquency (3)
- SOC 315 Criminology (3)
- ☞ SOC 376 Introduction to Social Research (3)
- ☞ SOC 418 Criminal Law and Procedure (3)
- SOC 423 Race Relations and Minority Groups (3)

* "Additional Requirements" course as defined in Item 3, page 19.

Notes:

1. STAT 110 is not a prerequisite for admission to the Criminal Justice program.
2. Computer skills are a necessary requirement for employment in the profession of criminal justice. It is strongly recommended that the student complete a computer science course.
3. The student must also be admitted to the Criminal Justice program in order to enroll in any 400-level or track course.
4. Note that all field courses have an additional fee to cover malpractice liability insurance.

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 complete two separate internships: one in corrections (SOC 461, Criminal Justice Internship, Corrections) and one in law enforcement (SOC 462, Criminal Justice Internship, Law Enforcement). See required courses for corrections and law enforcement below.

LAW ENFORCEMENT OPTION (SCJL)

32 S.H.

REQUIRED COURSES (21 S.H.)

- ✍ SOC 404 Law Enforcement Investigation and Communication (3)
- SOC 417 Operations and Procedures in Law Enforcement (3)
- ✍ SOC 491 Community Policing and Administration (3)
- SOC 462 Criminal Justice Internship Law Enforcement (12)

ELECTIVES (11 S.H.)

11 S.H. at the 300- or 400-level within the department

SOC 420 Minnesota Criminal Code (3)

Note: Successful completion of SOC 420 is required for POST certification in Minnesota. Students seeking peace officer licensure in the State of Minnesota must successfully complete SOC 420 in addition to the summer skills component.

CORRECTIONS OPTION (SCJC)

32 S.H.

REQUIRED COURSES (24 S.H.)

- SOC 355 Corrections (3)
- ✍ SOC 405 Models and Strategies of Intervention (3)
- SOC 406 Probation and Parole (3)
- ✍ SOC 407 Offender Assessment (3)
- SOC 461 Criminal Justice Internship, Corrections (12)

ELECTIVES (8 S.H.)

8 S.H. at the 300- or 400-level within the department

COURSE DESCRIPTIONS (SOC)

All courses in the major, minor, options, concentrations, and licensures must be taken on a grade-only basis except internships and field experiences.

SOCIOLOGY**150 - Introduction to Sociology (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 each semester.

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 each 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 each semester.

216 - Social Problems (3 S.H.)

The nature, characteristics and proposed solutions for selected social problems. Recommended prerequisite: SOC 150. Grade only. Offered each semester.

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 and criminal justice faculty. Prerequisite: SOC 150 and for B.A. Sociology majors, STAT 110 or PSY 231. Limited to 30 students. Grade only. Offered each 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: SOC 150, 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.

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. Prerequisites: SOC 150, STAT 110 or PSY 231, SOC 376, and admission to the B.A. Sociology program. P/NC only. Arranged.

386 - Field Experience-Gerontology (1-6 S.H.)

This takes place in a supervised environment in which the student is relevantly involved with selected aspects of social gerontology and working with the aged population. P/NC only. Arranged.

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 specific 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 each 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: SOC 150. 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 periodically.

435 - Family Roles and Relationships (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 and 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; however, 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.

460 - Internship (1-12 S.H.)

An intensive, professionally supervised placement within an organization relevant to sociological practice. Emphasis is on the student assuming professional responsibilities and applying relevant knowledge and skills within the organization where they are placed. Prerequisites: SOC 150, STAT 110 or PSY 231, SOC 376, SOC 377, and admission to the B.A. Sociology program. P/NC only. Arranged.

470 - Mediation and Conflict Resolution (3 S.H.)

The course will provide an introduction to conflict management and mediation as a facilitative process for alternative dispute resolution. Basic theoretical frameworks related to conflict management will be covered and mediation skills will be developed. Prerequisites: SOC 150, senior standing in SOC/SW/CJ, and instructor's permission. Grade only. Offered yearly.

474 - Intervention with Families (3 S.H.)

This course provides an introduction to intervention with families involving home, school, and community resources in the facilitation of support and problem solving. Theoretical frameworks, research, and skills are covered. Prerequisite: SOC 150. Grade only. Offered every two years.

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, admission to the B.A. Sociology program and senior standing. Grade only. Offered yearly.

SOCIOLOGY TOPICS AND INDEPENDENT STUDIES COURSES

480 - Variable Topics in Sociology (1-3 S.H.)

A seminar course on 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. Grade only. Offered on demand.

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.

CRIMINAL JUSTICE

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 (3 S.H.)

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.)

An analysis of the systems and functions of corrections including the areas of administration of programs and security. Limited to 30 students. Prerequisite: Admission to the Sociology-Criminal Justice program and instructor's permission. Grade only. Offered each semester.

387 - Field Experience Corrections (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. P/NC only. Offered each semester.

388 - Field Experience Law Enforcement (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. P/NC only. Offered each semester.

404 - Law Enforcement Investigation and Communication (3 S.H.)

This course is designed to introduce the student to law enforcement investigative and communication processes. The course identifies the four sources of investigative information, and provides practice in interviewing, interrogation, and investigative report writing. Prerequisites: Admission to the Sociology-Criminal Justice program and instructor's permission. Limited to 15 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. Emphasis is on assisting individual clients and small groups with behavioral and cognitive changes. Prerequisites: admission to the Sociology-Criminal Justice program and 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 the 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.)

This course addresses the knowledge and skills required in assessing offender custody and program needs as well as the management of offenders in institutions and the community. Prerequisites: Admission to the 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: Admission to the Sociology-Criminal Justice program and 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 the Sociology-Criminal Justice program and instructor's permission. Limited to 30 students. Grade only. Offered each semester.

420 - Minnesota Criminal Code (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 20 students. Prerequisites: Admission to the Sociology-Criminal Justice Law Enforcement track, SOC 418, and instructor's permission. Grade only. Offered yearly.

461 - Criminal Justice Internship Corrections (1-12 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 the Sociology-Criminal Justice program; at least junior standing; and/or instructor's permission. P/NC only. Offered each semester.

462 - Criminal Justice Internship Law Enforcement (1-12 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 the Sociology-Criminal Justice program; at least junior standing; and/or instructor's permission. P/NC only. Offered each semester.

* "Additional Requirements" course as defined in Item 3, page 19.

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 the Sociology-Criminal Justice program and 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 the Sociology-Criminal Justice program and instructor's permission. Limited to 20 students. Grade only. Offered every other year.

491 - Community Policing and Administration (3 S.H.)

This course is designed to assist the student in identifying and implementing a community policing philosophy using contemporary law enforcement organizational management processes. Prerequisites: Admission to the Sociology-Criminal Justice program and instructor's permission. Limited to 25 students. Grade only. Offered each semester.

SPECIAL EDUCATION

Gildemeister Hall, Room 221 (507-457-5535; fax: 507-457-2483)

www.winona.edu/specialeducation

Barbara Boseker (Chairperson)

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 -

Frank Rocco, Professor, B.S., Clarion College; M.Ed., Boston College; Ph.D., Michigan State University; 1972 -

SPECIAL EDUCATION (SPED)

WSU offers two undergraduate programs and two graduate programs leading to full K-12 licensure by the State of Minnesota:

- Learning Disabilities K-12 Licensure (109 credits)
- Developmental Disabilities, (Mild/Moderate/Severe/Profound) K-12 Licensure (121 credits)

REQUIREMENTS FOR MAJORING IN SPECIAL EDUCATION (LD, DD)

Note: It is of critical importance that applicants to the program see a Special Education advisor immediately upon making the decision to major in SPED. This is true for double majors as well.

The SPED programs have courses that can be taken during each college year. The University Studies courses are NOT taken first followed by the courses in the major. Both are taken together. Again, it is imperative that students see a Special Education advisor immediately.

DOUBLE MAJOR WITH OTHER TEACHING LICENSURES

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; however, they will be required to spend additional time at the University. A double education major may be accomplished through the efficient use of summer classes and/or additional semesters as needed. Students should consult with a special education advisor for guidance.

REQUIREMENTS FOR APPLICATION AS A SPED MAJOR

1. 2.75 GPA for at least 30 credits.
2. "B" or better in ENG 111 and CMST 191.
3. "C" or better in MATH 100 or higher mathematics. (STAT 110 recommended by SPED Department)
4. Completion of the Reading, Math, and Writing sections of the Pre-Professional Skills Test (PPST) before applying to the program. (It is suggested that the test be taken during the first semester of the freshman year or before entering college.)
5. Attend an Education Department Admission Meeting, and complete an Application to Teacher Education.
6. Complete a Special Education Department application form.
7. Maintain a GPA of 2.75 as a requirement of student teaching with no major course below a grade of "C."

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Department of Special Education offers the following flag courses in the University Studies Program:

FLAG

Oral

SPED 441 Practicum B Developmental Disabilities (15)

SPED 446 Practicum B Learning Disabilities (15)

Flag courses that can be used to satisfy Special Education major/minor requirements are identified in the lists of required courses and electives later in this section.

B.S. IN SPECIAL EDUCATION, LEARNING DISABILITIES K-12 LICENSURE (SELD)

I. UNIVERSITY STUDIES (See page 18.)

Basic Skills (13 S.H.)

ENG 111 College Reading and Writing (4) [Grade of B or better required]

CMST 191 Introduction to Public Speaking (3) [Grade of B or better required]

MATH 100 or higher mathematics (3) [Grade of C or better required] (STAT 110 recommended by SPED Department)

HERS 204 Personal and Community Health (3)

Arts and Sciences Core (22 S.H.)

† Humanities elective (3)

† Humanities elective (3)

Social Science: PSY 210 General Psychology (3)

Social Science Elective: SPED 400 Education of Exceptional Children/Youth (3)

† Natural Science elective (with lab) (4)

† Natural Science elective (3)

† Fine and Performing Arts elective (3)

Unity and Diversity (12 S.H.)

† Critical Analysis elective (3)

† Science and Social Policies elective (3)

† Global Studies/Multicultural: EDUC 308 Human Relations and Student Diversity (admission to Teacher Education required)

† Contemporary Citizenship/Democratic Institutions elective (3)

† Course to be chosen from the University Studies list of approved courses.

II. PROFESSIONAL EDUCATION SEQUENCE

(Minimum 16 S.H.; admission to Teacher Education required.)

* EDUC 304 Human Development and Learning: Middle Level and K-12 (4) OR

EDUC 305 Human Development and Learning: Secondary (4)

EDUC 308 Human Relations and Student Diversity (3) [see also global studies/multicultural above]

▢ EDUC 311 Instructional Planning and Assessment:

Middle Level and K-12 (3) OR

EDUC 312 Instructional Planning and Assessment: Secondary (3)

- ☞ EDUC 449 Middle Level Philosophy, Organization and Interdisciplinary Planning (3)
- ☞ EDUC 459 The Professional Educator (3)

III. SPECIALTY COURSES (minimum 16 S.H.)

- EDUC 328 Teaching Reading and Language Arts I (3) AND
- EDUC 329 Teaching Reading and Language Arts II (3) AND
- EDUC 429 Secondary Reading and Teaching Strategies (4) OR
- SPED 414 Multisensory/Comprehensive Language Arts Instruction I (5) AND
- SPED 415 Multisensory/Comprehensive Language Arts Instruction II (5)
- EDUC 334 Teaching Mathematics in the Elementary School (3)
- SPED 425 Inclusion in Regular Classrooms (3)

IV. LICENSURE COURSES (admission to Special Education required)

- Learning Disabilities (36 S.H.)**
- SPED 400 Education of Exceptional Children/Youth (3) [sophomore status required; see also social science requirement above.]
 - SPED 405 Student Management Systems (3)
 - SPED 410 Introduction to Assessment/Methods (3)
 - SPED 411 Practicum A (3)
 - SPED 420 Special Education Administrative Procedures (3)
 - SPED 430 Characteristics of Students with Disabilities (3)
 - SPED 445 Assessment/Methods for Students with Learning Disabilities (3)
 - ☞ SPED 446 Practicum B-Learning Disabilities (15)
- Note: SPED 410 and SPED 411 must be taken concurrently.

B.S. IN SPECIAL EDUCATION, DEVELOPMENTAL DISABILITIES K-12 LICENSURE (SEDD)

I. UNIVERSITY STUDIES (See page 18.)

- Basic Skills (13 S.H.)**
- ENG 111 College Reading and Writing (4) [Grade of “B” or better required]
 - CMST 191 Introduction to Public Speaking (3) [Grade of “B” or better required]
 - MATH 100 or higher mathematics (3) [Grade of “C” or better required] (STAT 110 recommended by SPED Department)
 - HERS 204 Personal and Community Health (3)
- Arts and Sciences Core (22 S.H.)**
- † Humanities elective (3)
 - † Humanities elective (3)
 - Social Science: PSY 210 General Psychology (3)
 - Social Science Elective: SPED 400 Education of Exceptional Children/Youth (3)
 - † Natural Science elective (with lab) (4)
 - † Natural Science elective (3)
 - † Fine and Performing Arts elective (3)
- Unity and Diversity (12 S.H.)**
- † Critical Analysis elective (3)
 - † Science and Social Policies elective (3)
 - † Global Studies/Multicultural: EDUC 308 Human Relations and Student Diversity (admission to Teacher Education required)
 - † Contemporary Citizenship/Democratic Institutions elective (3)
 - † Course to be chosen from the University Studies list of approved courses.

II. PROFESSIONAL EDUCATION SEQUENCE

- (Minimum 16 S.H.; admission to Teacher Education required.)
- * EDUC 304 Human Development and Learning: Middle Level and K-12 (4) OR
 - EDUC 305 Human Development and Learning: Secondary (4)
 - EDUC 308 Human Relations and Student Diversity (3) [see also global studies/multicultural above]
 - ☞ EDUC 311 Instructional Planning and Assessment: Middle Level and K-12 (3) OR
 - EDUC 312 Instructional Planning and Assessment: Secondary (3)
 - ☞ EDUC 449 Middle Level Philosophy, Organization and Interdisciplinary Planning (3)
 - ☞ EDUC 459 The Professional Educator (3)

III. SPECIALTY COURSES (minimum 16 S.H.)

- EDUC 328 Teaching Reading and Language Arts I (3) AND
- EDUC 329 Teaching Reading and Language Arts II (3) AND

- EDUC 429 Secondary Reading and Teaching Strategies (4) OR
- SPED 414 Multisensory/Comprehensive Language Arts Instruction I (5) AND
- SPED 415 Multisensory/Comprehensive Language Arts Instruction II (5)
- EDUC 334 Teaching Mathematics in the Elementary School (3)
- SPED 425 Inclusion in Regular Classrooms (3)

IV. LICENSURE COURSES (admission to special education required)

- Developmental Disabilities (48 S.H.)**
- SPED 400 Education of Exceptional Children/Youth (3) [sophomore status required; see also social science requirement above]
 - SPED 405 Student Management Systems (3)
 - SPED 407 Management Techniques for Severe Developmental Disabilities (3)
 - SPED 408 Functional Skills Development (3)
 - SPED 409 Medical Aspects of Developmental Disabilities (3)
 - SPED 410 Introduction to Assessment/Methods (3)
 - SPED 411 Practicum A (3)
 - SPED 420 Special Education Administrative Procedures (3)
 - SPED 430 Characteristics of Students with Disabilities (3)
 - SPED 431 Language/Sensory Stimulation (3)
 - SPED 440 Assessment/Methods for Students with Developmental Disabilities (3)
 - ☞ SPED 441 Practicum B-Developmental Disabilities (15)
- Note: SPED 410 and SPED 411 must be taken concurrently.

COURSE DESCRIPTIONS (SPED)

400 - Education of Exceptional Children/Youth (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. Offered each semester and summer.

405 - Student Management Systems (3 S.H.)
 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. Grade only. Offered each semester and summer.

407 - Management Techniques for Severe Developmental Disabilities (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. This course is only offered in the summer at Camp Winnebago in Caledonia, Minnesota. It is part of a 12-credit corequisite sequence with SPED 408, 409, and 431 requiring participation in the Camp Winnebago programs. Advance application and departmental permission to enroll. Prerequisites: SPED 400, 405, 420. Grade only. Offered summer only.

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 living skills are emphasized. Objective is to develop skills that may be used in self-care and assistive care environments. This course is only offered in the summer at Camp Winnebago in Caledonia, Minnesota. It is part of a 12-credit corequisite sequence with SPED 407, 409, and 431 requiring participation in the Camp Winnebago programs. Advance application and departmental permission to enroll. Prerequisites: SPED 400, 405, 420. Grade only. Offered summer only.

409 - Medical Aspects of Developmental Disabilities (3 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. This course is only offered in the summer at Camp Winnebago in Caledonia, Minnesota. It is part of a 12-credit corequisite sequence with SPED 407, 408, and 431 requiring participation in the Camp Winnebago programs. Advance application

* “Additional Requirements” course as defined in Item 3, page 19.

and departmental permission to enroll. Prerequisites: SPED 400, 405, 420. Grade only. Offered summer only.

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, 405, EDUC 304 or 305 or equivalent, EDUC 311 or 312 or equivalent; methods courses in math and reading recommended. Concurrent enrollment in SPED 411; departmental permission to enroll. Grade only. Offered twice yearly.

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, 405, EDUC 304 or 305 or equivalent, EDUC 311 or 312 or equivalent; methods courses in math and reading recommended. Concurrent enrollment in SPED 410; advance application, departmental permission to enroll. P/NC only. Offered twice yearly.

414 - Multisensory/Comprehensive Language Arts

Instruction I (5 S.H.)

The first of a two-course sequence (SPED 414 and 415) in literacy methods. This first course examines the integration of reading, writing, listening, and speaking competencies in a unified literacy curriculum for learners from kindergarten through grade 12. Instructional emphasis is placed upon learning the sound/symbols associations for all levels of written language including the multisensory essential teaching techniques in literacy instruction based on the original work of Orton and Gillingham. Instruction encompasses linguistic rules and the structure of English from elementary to the highest levels of vocabulary, and matching appropriate instructional strategies with the present knowledge of learners and their language learning capabilities. A required supervised practicum is integral to the course. WSU students enrolled in this course must demonstrate mastery of the skills learned by teaching students with reading difficulties under supervised conditions. This two-course sequence meets the Minnesota Board of Teaching reading competency requirements. Prerequisites: None. Grade only. Offered yearly.

415 - Multisensory/Comprehensive Language Arts

Instruction II (5 S.H.)

The second of a two-course sequence (SPED 414 and SPED 415) in literacy methods extends the examination of reading, writing, listening, speaking, and viewing competencies into all areas of language arts. The focus will be on applying multisensory teaching techniques based on the original work of Orton and Gillingham to all the areas needed for literacy competencies: word decoding and encoding, comprehension skills, written expression skills, vocabulary development, and knowledgeable use of grammar. This will also include assessment of an individual's specific instructional needs and ways to adapt instruction of essential concepts to fit those needs at all levels of literacy required by learners from kindergarten through high school. A required supervised practicum is integral to the course. WSU students enrolled in this course must demonstrate mastery of the skills learned by teaching students with reading difficulties under supervised conditions. This two-course sequence meets the Minnesota Board of Teaching reading competency requirements. Prerequisites: SPED 414. Grade only. Offered yearly.

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 or corequisite: SPED 400. Grade only. Offered each semester and summer.

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, 405, 420. Grade only. 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 developmentally disabled, learning disabled, or emotionally/behaviorally disordered. Implications for planning instruction and issues related to the field of Special Education are identified. Grade only. Offered each semester.

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 that will assist the severely disabled in participating in less restrictive environments and their own care. This course is only offered in the summer at Camp Winnebago in Caledonia, Minnesota. It is part of a 12-credit corequisite sequence with SPED 407, 408, and 409 requiring participation in the Camp Winnebago programs. Advance application and departmental permission to enroll.

Prerequisites: SPED 400, 405, 420. Grade only. Offered summer only.

440 - Assessment/Methods for Students with Developmental Disabilities (3 S.H.)

Knowledge and skills for professional entry-level assessment and program development/adaptation for students with developmental disabilities including transition and paraprofessional supervision. Offered yearly. Prerequisite: Concurrent enrollment in SPED 441; may also be taken before SPED 441; departmental permission to enroll. Grade only.

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 all-day, supervised school settings. Student teaching experience is full-time daily for a full semester. Admission to the special education major required. Advance application and departmental permission to enroll. Prerequisites: Concurrent or previous enrollment in SPED 440, formal application at least two semesters prior to enrollment. P/NC only. Offered each semester.

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; may also be taken before SPED 446; departmental permission to enroll. Grade only. Offered each 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 all-day, supervised school settings. Student teaching experience is full-time daily for a full semester. Prerequisites: Concurrent or previous enrollment in SPED 445, formal application at least two semesters prior to enrollment. Admission to the special education major required. Advance application and departmental permission to enroll. P/NC only. Offered each semester.

490 - Seminar/ Workshop (1-3 S.H.)

The subject matter to be developed by the Special Education 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. Grade only. Offered on demand.

499 - Individual Study (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. Prerequisites: Major advisor's permission. May be repeated. Offered each semester.

THEATRE AND DANCE

Performing Arts Center, Room 215 (507-457-5230)

www.winona.edu/thad/thadhome.html

David Bratt (Chairperson)

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 -

Peggy Sannerud, Assistant Professor; B.S., Northwestern University; M.F.A., University of Minnesota-Twin Cities; 2003 -

PURPOSE

The Department of Theatre and Dance (THAD) offers the B.A. major in theatre and minors in theatre and dance.

- The liberal arts theatre major offers cognitive, creative, and practical classes that integrate the study of theory and history into performance. The program develops kinesthetic, cognitive, and creative understanding as well as skills such as 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 productions gave 200 students the opportunity to fill nearly 350 performance, design, and crew roles.

Department alumni have successfully built careers in fields ranging from professional theatre to high school and college teaching to marketing analysis, county court management, and small business ownership. In response to a recent survey, alumni report an average career satisfaction of 3.4 on a 4.0 scale.

PASS/NO CREDIT (P/NC) COURSES

Except for the THAD Showcase, internships, and practica, students must take all courses in their THAD major and minor on a grade-only basis. The P/NC option is available to non-majors unless otherwise noted. Courses offered on a pass/no credit-only or grade-only basis are so designated in the course descriptions.

THAD SHOWCASE (THAD 090) AND LAB/PRODUCTION CREW REQUIREMENTS

Theatre 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. Dance minor students are required to enroll in THAD 090 (THAD Showcase) four times during their academic career. One of these enrollments must be in the student's final semester. THAD 090 meets once a week during the semester.

Theatre 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 they may not minor in theatre.
2. New students who intend to major in theatre or minor in dance are strongly encouraged to consult with a THAD Department faculty member before registering for courses in their first semester. Failure to do so may delay graduation by a year. Continuing theatre majors are required to confer with their departmental advisor before registering for classes each semester.
3. Students majoring in theatre are required to complete THAD 291 six (6) times with a grade of "C" or better. Theatre minors are required to complete THAD 291 twice. If students believe they should be excused from all or a portion of this requirement, they must petition the department faculty for an exemption. This petition must be filed in the semester during which the student first declares his/her major or minor.
4. Students are strongly encouraged 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 Writing flag and Oral flag THAD courses. HIST 121 is required prior to enrollment in THAD 210 or 310.
5. Satisfactory completion of all prerequisite courses is required before a student may enroll in subsequent courses in the theatre major. ("Satisfactory completion" is defined as "completion with a grade no lower than "P" or "C.")
6. The THAD web page contains the most recent curriculum updates; refer to the web page for revisions made since the printing of this catalog.

TRANSFER STUDENTS

1. Theatre majors and minors transferring to WSU with an Associate in Arts degree will be exempted from 50% of the THAD 291 requirements listed above.
2. In order to graduate from WSU with a theatre major, a transfer student must complete at least 15 credits of WSU Theatre and Dance Department coursework numbered 300 or above.

ADDITIONAL GRADUATION REQUIREMENTS

For a checklist of the University's graduation requirements, see page 22. Specific requirements for THAD majors are as follows:

1. Earn a grade of "C" or better in each course taken for the theatre major.
2. Earn an overall GPA of 2.5 or better in the theatre major.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Department of Theatre and Dance offers the following flag courses in the University Studies Program:

FLAG

Oral

THAD 307 Design II Scenery and Costumes (3)

THAD 309 Design II Lighting and Sound (3)

Math/Critical Analysis

THAD 321 Play Directing (3)

Writing

THAD 210 Theatre History and Dramatic Literature I (3)

THAD 310 Theatre History and Dramatic Literature II (3)

Flag courses that can be used to satisfy Theatre and Dance major/minor requirements are identified in the lists of required courses and electives in this section.

* "Additional Requirements" course as defined in Item 3, page 19.

B.A. MAJOR - THEATRE (THTR)

44 S.H. (Minor Required)

REQUIRED COURSES - THAD (41 S.H.)

- 090 Showcase (0; enrollment with a grade of "P" required each semester any other major course is taken unless excused by the department chairperson)
- 107 Introduction to Technical Theatre (2)
- 119 Play Analysis (3)
- 131 Performance I (3)
- 207 Design Communication (3)
- ✍ 210 Theatre History/Dramatic Literature I (3)
- 231 Performance II (3)
- 291 Rehearsal and Performance (1; 6 S.H. required)
- ✋ 307 Design II Scenery and Costumes (3) OR 309 Design II Lighting and Sound (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)

PORTFOLIO REQUIREMENT

The Theatre major curriculum has a portfolio requirement, which is met by satisfactory completion of the requirements of THAD 495 Theatre Senior Seminar.

B.A. MINOR - THEATRE (THTR)

19 S.H.

REQUIRED COURSES - THAD (16 S.H.)

- 090 Showcase (0; enrollment with a grade of "P" required each semester any other major course is taken unless excused by the department chairperson)
- 107 Introduction to Technical Theatre (2)
- 119 Play Analysis (3)
- 131 Performance I (3)
- 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 and 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.

B.A. MINOR - DANCE (DANC)

26 S.H.

REQUIRED COURSES - THAD (17 S.H.)

Theory (9 S.H.)

- † 090 THAD Showcase (0)
- 115 Dance Appreciation (3)
- 131 Performance I (3)
- 322 Dance Composition (3)

† Four enrollments in THAD 090 THAD Showcase (0 S.H.) with a grade of "P" are required. One of these enrollments must be in the student's final semester, 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.

THAD Courses:

- 157 Ballet I (1)
- 257 Ballet II (2)
- 357 Ballet III (2)
- 457 Ballet IV (2)
- 155 Modern Dance I (1)
- 255 Modern Dance II (2)
- 355 Modern Dance III (2)
- 455 Modern Dance IV (2)
- 153 Jazz Dance I (1)
- 253 Jazz Dance II (2)

ELECTIVES (9 S.H.)

Biology (BIOL)

- * 211 Anatomy and Physiology I (4)

Health, Exercise and Rehabilitative Sciences (HERS)

- 205 Nutrition for Lifetime Wellness (3)
- 291 Prevention/Care of Athletic Injuries (2)
- 370 Kinesiology/Biomechanics (4)

Theatre and Dance (THAD)

- 107 Introduction to Technical Theatre (2)
- 141 Oral Interpretation (3)
- 151 Tap Dance (1)
- 231 Performance II (3)
- 331 Performance III (3)
- 137 Dance Repertory I (1-2)
- 237 Dance Repertory II (1-2)
- 315 Dancing Through History (3)
- 337 Dance Repertory III (1-2)
- 399 Internship (1-16)
- 437 Dance Repertory IV (1-2)
- 499 Independent Studies in THAD (1-8)

Note: Each Dance Repertory class (THAD 137, 237, 337, 437) may be repeated twice for credit for a total of 2 (4 S.H.). In addition, advanced THAD dance technique courses may be used as electives if not taken to fulfill requirements in the "Technique" category.

Physical Education & Recreation (PER)

- 112 Folk/Square Dance (1)
- 120 Ballroom Dance (1)
- 137 Fencing (1)
- 144 Contemporary Activities (1-2) (Yoga or Pilates or Tai Chi sections only)
- 199 Lifetime Fitness (2)

Music (MUS)

- 114 World Music (3)

Philosophy (PHIL)

- 280 Philosophy of Art (3)

PORTFOLIO REQUIREMENT

Upon declaring a dance minor, students should schedule a "portfolio appointment" with Professor Gretchen Cohenour, PAC Room 212 (457-5665). Dance minors are required to 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 must be submitted for faculty review by April 1 in the year of graduation or by November 1 for mid-year graduates.

COURSE DESCRIPTIONS (THAD)

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. P/NC only. Offered each semester.

100 - Theatre Activities (1 S.H.)

Active participation in a major theatre or dance production as performer or in box office, scenic studio, or costume studio. Course may be repeated up to 6 S.H.; maximum of 3 credits may be taken for University Studies. Offered each semester.

107 - Introduction to Technical Theatre (2 S.H.)

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 THAD 291; all other students must concurrently enroll in THAD 100. Grade only. Offered yearly.

111 - Theatre Appreciation (3 S.H.)

Designed for the general student who wishes to become familiar with theatre. Students will explore theatre through class lectures and discussion, individual and group projects, production attendance, and play readings. Students will be expected to attend theatre productions outside scheduled class time. Offered each semester.

115 - Dance Appreciation (3 S.H.)

Analysis and appreciation of diverse theatrical dance styles and 20th century trends within their cultural, historical, and theoretical contexts. Emphasis on active learning, teamwork, and kinesthetic involvement as a basis for response to the dance experience via live performance, video, movement, and writing. Concurrent registration in THAD 090 required of dance minors unless excused by the department. Offered each semester.

119 - Play Analysis (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.)

Practice in and integration of movement and voice in expressive performance through solo and group improvisation and collaborative work. Concurrent registration in THAD 090 required of THAD majors and minors unless excused by the department. P/NC option. Offered yearly.

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. Grade only. Offered each semester.

141 - Oral Interpretation (3 S.H.)

Study of prose, poetry, and drama through performance. Brings to life the printed symbol. Offered yearly.

151-Tap Dance I (1 S.H.)

An introduction to tap technique emphasizing musicality, expression, and style in performance within its cultural and historical context. May be repeated once for credit. Grade only.

153-Jazz Dance I (1 S.H.)

An introduction to the basic movement techniques, styles, history, and music of contemporary jazz dance. May be repeated once for credit. Grade only.

155-Modern Dance I (1 S.H.)

This course is an introduction to the theory, technique, terminology, and history of modern dance as a performing art. The focus of expressive movement training is enhanced through experiences with improvisation and choreography. May be repeated once for credit. Grade only.

157-Ballet I (1 S.H.)

An introduction to classical ballet technique, theory, and history as a performing art. Grade only. May be repeated once for credit.

205 - Make Up for the Performer (1 S.H.)

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 unless excused by the department. Grade only. Offered alternate years.

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, freehand sketching, and rendering. Concurrent registration in THAD 090 required unless excused by the department. Prerequisites: Satisfactory completion of THAD 107 and THAD 119 or instructor's permission. Grade only. Offered yearly.

209 - Stage Management (1 S.H.)

Study and practice of the functions of a stage manager. Concurrent registration in THAD 090 required of all majors and minors unless excused by the department. Offered alternate years.

210 - Theatre History and Dramatic Literature I (3 S.H.)

Survey of the works of major Western playwrights through 1800, their cultural contexts, and staging practices. Prerequisites: Satisfactory completion of ENG 111, 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: Satisfactory completion of THAD 119 and THAD 131. Grade only. Offered yearly.

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. Grade only. Offered each semester.

239 - Creative Dramatics for Children (2 S.H.)

Study and application of techniques that enable teachers and group leaders to guide others to imagine, enact, and reflect upon human experiences through dramatic activity. Offered alternate years.

253-Jazz Dance II (2 S.H.)

A continuation of Jazz Dance I with more extensive techniques, terminology, history, and music, emphasizing the refinement of skills in

contemporary jazz dance. The course will deepen conceptual understandings in various jazz styles and will include elements of performance and choreography. Prerequisite: Jazz I or instructor's permission. May be repeated once for credit. Grade only.

255-Modern Dance II (2 S.H.)

This advanced beginning level course is a further exploration of the theory, technique, terminology, and history of modern dance as a performing art. The focus of expressive movement training is enhanced through experiences with improvisation and choreography. May be repeated once for credit. Prerequisite: Modern Dance I or instructor's permission. Grade only.

257-Ballet II (2 S.H.)

A continuation of Ballet I with more extensive classical ballet technique, theory, and history. The course will develop skills in choreography and performance. Prerequisite: Ballet I or instructor's permission. May be repeated once for credit. Grade only.

290 - Creativity Across the Curriculum (2 S.H.)

Study and practice of skills to improve teaching and learning; the emphasis is on creative thinking, bringing information to life and fostering conditions favorable to participatory learning. Offered yearly.

291 - Rehearsal and Performance (1 S.H.)

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. Grade only. Offered each semester.

307 - Design II Scenery and Costumes (3 S.H.)

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. Prerequisites: Satisfactory completion of CMST 191, THAD 207, and all other prerequisite courses or instructor's permission. 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. Prerequisites: Satisfactory completion of CMST 191, THAD 207 and all other prerequisite courses. Open to majors and minors or with instructor's permission. Offered alternate years.

310 - Theatre History and Dramatic Literature II (3 S.H.)

Survey of the works of major Western playwrights 1800-1970, their cultural contexts and staging practices. Prerequisites: Satisfactory completion of THAD 210 and all other prerequisite courses. Additional assignments required. Concurrent registration in THAD 090 required of majors and minors unless excused by the department. Offered yearly.

315 - Dancing Through History (3 S.H.)

Broad survey of world dance history from origins to the present within specific cultural and aesthetic contexts. No prerequisite for non-THAD major/minors although THAD 115 is strongly recommended. Prerequisite for THAD majors/minors: THAD 115. Offered occasionally.

321 - Play Directing (3 S.H.)

Study and application of processes affecting play selection, casting, and rehearsals. Prerequisites: Satisfactory completion of University Studies math basic skills course, THAD 231, THAD 307 or THAD 309, and THAD 310. Open to declared theatre majors and minors only. Concurrent registration in THAD 090 required unless excused by the department. Grade only. Offered yearly.

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. Grade only. Offered alternate years.

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: Satisfactory completion of THAD 231 and all other prerequisite courses. Open to declared theatre majors and minors only. Grade only. Offered yearly.

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. Grade only. Offered each semester.

355-Modern Dance III (2 S.H.)

An intermediate level course focusing on technique, theory, and history of modern dance as a performing art. Level III engages more in-depth

skill development in technique, performance, improvisation, and choreography. May be repeated once for credit. Prerequisite: Modern Dance II or instructor's permission. Grade only.

357-Ballet III (2 S.H.)

The practice and study of intermediate classical ballet technique with continued refinement of movement skills and aesthetic awareness. The course includes more extensive ballet history and further develops skills in choreography and performance. May be repeated once for credit. Prerequisite: Ballet II or instructor's permission. 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 production crew requirement. Concurrent registration in THAD 090 required unless excused by the department. Prerequisite: Junior standing. Open to declared majors and minors or instructor's permission. 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. P/NC only. Offered by arrangement.

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. Grade only. Offered each semester.

455-Modern Dance IV (2 S.H.)

An intermediate advanced level course focusing on technique, theory, and history of modern dance as a performing art. Level IV develops

advanced skill levels in technique, performance, improvisation, choreography, and applied theory. May be repeated once for credit. Prerequisite: Modern Dance III or instructor's permission. Grade only.

457-Ballet IV (2 S.H.)

The practice and study of advanced classical ballet technique with continued refinement of movement skills and aesthetic awareness. The course includes more extensive ballet history and further develops skills in choreography and performance. May be repeated once for credit. Prerequisite: Ballet III or instructor's permission. Grade only.

490 - Capstone Production Project (3 S.H.)

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: Satisfactory completion of THAD 307 or THAD 309, THAD 321, THAD 331, and all other prerequisite courses. Open to declared Theatre majors and minors only. Grade only. Offered yearly.

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. Grade only. Offered yearly.

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. Grade only. Offered by arrangement.

WOMEN'S AND GENDER STUDIES

Minné Hall, Room 329 (507-457-5460)

www.winona.edu/womensstudies

Tamara Berg, Director

FACULTY

Tamara Berg, Associate Professor; B.A., University of Wisconsin; M.A., Ph.D., Indiana University, Bloomington; 1995 -

PURPOSE

Women's and Gender Studies is a multidisciplinary program that looks at the lives and experiences of women and men through many different disciplines—history, art, psychology, economics, literature, sociology, and public health, among others. Women's and Gender 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 and men's lives within multicultural societies.

The Women's and Gender Studies Program is committed to integrating classroom and community. Women's and Gender 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 and Gender Studies Program sponsors and coordinates campus opportunities and events that promote understanding and awareness of diverse perspectives and gender-related issues among WSU students, faculty, and staff. The program centralizes information relevant to women's and gender studies opportunities at WSU and provides students, faculty, and staff convenient access to and use of that information.

The Women's and Gender Studies Program functions for and with all segments of WSU including the Outreach and Continuing Education Department, the Rochester campus, and the larger Winona community. The program focuses on five major objectives:

1. Promoting understanding of gender issues on campus and in the wider community
2. Supporting gender-related social change activities on campus and in the wider community
3. Guidance and leadership in the process of integrating gender issues into the WSU curriculum
4. Centralization of information about existing opportunities for exploring and addressing gender issues
5. Coordination and administration of women's and gender studies course offerings.

The program operates in the following areas:

- Academic Opportunities: The program offers a minor in women's and gender studies 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.
- Campus and Community Events: The program works with campus constituencies in developing and planning workshops, lectures, performances and other events related to women's and gender issues.

The women's and gender 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 and gender 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 and men's lives within multicultural societies. The minor in women's and gender studies 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 and gender studies courses, courses in other departments, and a field experience, the women's and gender studies minor prepares students to assume roles as active citizens in addressing issues shaping women's and men's lives. Each student is required to complete a portfolio that represents and explains her/his growth and development as a minor in women's and gender studies.

PASS/NO CREDIT (P/NC) COURSES

Except for independent study, students must take all courses in the minor on a grade-only basis. The P/NC option is available to non-majors unless otherwise noted. Courses offered on a pass/no credit only or grade only basis are so designated in the course descriptions.

UNIVERSITY STUDIES FLAG REQUIREMENTS

Students may use Flag courses, which will usually be in the student's major or minor program, to satisfy both University Studies and major requirements. Flag courses will usually be in the student's major or minor program. The Women's and Gender Program offers the following flag courses in the University Studies Program:

Math/Critical Thinking

WS 348 Topics in Women's & Gender Studies (3)

For Women's and Gender Studies minors, Flag courses are identified in the lists of required courses and electives in this section.

B.A. MINOR - WOMEN'S AND GENDER STUDIES (WOMS)


23-25 S.H.

CORE COURSES (14 S.H.)

WS 148 Introduction to Women's and Gender Studies (3)
 WS 220 Power, Privilege and Gender (3)
 WS 373 Feminist Theory/Process (3)
 WS 420 Field Experience (3)
 WS 448 Senior Seminar (2)

CORE DISCIPLINARY COURSES (6-8 S.H.)

Students take 6-8 S.H. from the following list of courses; see the Women's and Gender Studies Director for an updated list:

BUED 350 Quality of Work Life (3)
 ART 252 Survey of Women Artists (3)
 HIST 315 Women in U.S. History (4)
 NURS 260 Women's Health Issues (3)
 PSY 275 Psychology of Women (3-4)
 PHIL 130 Moral Problems (3)
 POLS 450 Feminist Political Theory (3)
 PSY 424 Women & Mental Health (3)
 RESC 234 Interdisciplinary Approach to Gender and Latin American Society through 20th Century Literature (3)
 RESC 235 Interdisciplinary Approach to Women and Social Justice Issues in Latin America (3)
 WS 348 Topics in Women's and Gender Studies (3)

ELECTIVES (3 S.H.)

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. The following is a partial list of courses approved as WS electives:

History

 HIST 315 Women in U.S. History

Music

MUS 113 Women in Music

Nursing

NURS 260 Women's Health Issues

Philosophy

PHIL 130 Moral Problems
 PHIL 240 Philosophy of Science

Psychology

PSY 275 Psychology of Women

Political Science

 POLS 450 Feminist Political Theory

Residential College

RESC 232 Interdisciplinary Approach to an Overview of Latin America and the Caribbean
 RESC 233 Interdisciplinary Approach to Latin American and Caribbean Immigrants in U.S. Society

Social Work

 SOCW 340 Introduction to Social Work and Social Welfare
 SOCW 380 Social Welfare Policy

Notes:

1. For descriptions of the RESC courses, see Residential College on page 186.
2. For a complete list of approved WS electives, see the Women's and Gender Studies Program Director.

COURSE DESCRIPTIONS (WS)

148 - Introduction to Women's & Gender Studies (3 S.H.)

This course is 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; this course 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 (3 S.H.)

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 the instructor. Instructor's written permission is required.

348 - Topics in Women's & Gender Studies (3 S.H.)

This course presents an in-depth study of topics of current interest in the field of Women's and Gender 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. Prerequisites: WS 120, 220 or instructor's permission. Offered at least once a year.

420 - Field Experience (3-6 S.H.)

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 and Gender Studies courses; and develop the skills and knowledge necessary to act effectively as citizens of their communities. Prerequisites: Women and Gender Studies minor status.

448 - Senior Seminar (2 S.H.)

As the capstone for the Women's and Gender Studies minor, this course requires students to review and assess their work in Women's and Gender Studies and the relationship between the minor and their major. Prerequisites: WS 148, WS 220, WS 348, WS 420, and Women's and Gender Studies minor status or instructor's permission.

FACULTY

Beckry Abdel-Magid, Professor, Engineering; B.S., University of Khartoum; M.S., Ph.D., University of Wisconsin; 1990 -

Brian Aldrich, Professor, Sociology; A.B., Lewis and Clark College; M.S., Ph.D., University of Wisconsin; 1976 -

Stephen T. Allard, Assistant Professor, Geoscience; B.S., M.S., University of New Hampshire; Ph.D., University of Wyoming; 2002 -

Dawn Anderson, Professor, Health, Exercise and Rehabilitative Sciences; B.A., University of Minnesota; M.S., Iowa State University; Ph.D., Ball State University, Muncie (IN); 1992 -

Jeffrey Anderson, Professor, Mathematics and Statistics; B.A., University of Minnesota, Morris; Ph.D., Iowa State University; 1992 -

Phillip Appicelli, Associate Professor, Health, Exercise and Rehabilitative Sciences; B.A., College of St. Scholastica; M.A., Ph.D., Kent State University; 1998 -

James Armstrong, Associate Professor, English; B.A., Northwestern University; M.F.A., Western Michigan University; Ph.D., Boston University; 1999 -

Theresa Arrick-Kruger, Vice President for University Affairs; B.S., Fort Wright College; J.D., St. Mary's School of Law; M.B.A., Winona State University; 1988 -

Marzie Astani, Professor, Management of Information Systems and Operations; B.A., Tehran University; M.S., Ph.D., Iowa State University of Science and Technology; M.B.A., Central Michigan University; 1987 -

Susan Ballard, Professor, Nursing; B.S.N., University of Illinois; M.S.N., University of Minnesota; 1984 -

Mark Bambenek, Intramural Director; B.S., M.S., University of Wisconsin; 1988 -

Christine Barajas, Associate Vice President, Academic Affairs; B.S., M.S., University of Wisconsin; Ph.D., University of Minnesota; 2000 -

Sara Barbor, Professor, Business Administration; B.A., Earlham College; M.A., Ball State University; M.B.A., Ph.D., University of Kansas; 1988 -

Kimberly M. Bates, Associate Professor, Biology; A.A., Berkshire Community College; B.S., University of Massachusetts; M.S., Ph.D., University of Missouri; 1997 -

Sandra Benning, Assistant Registrar; B.S., Winona State University; 1985 -

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

Tamara Berg, Associate Professor; Women's & Gender Studies; B.A., University of Wisconsin; M.A., Ph.D., Indiana University, Bloomington; 1995 -

J. Lawrence Bergin, Professor, Accounting; B.S., M.B.A., Northeastern University; 1981 -

Lori Beseler, Associate Registrar; B.A., University of Wisconsin; 2004 -

JoEll W. Bjorke, Professor, Business Administration; B.S., St. Cloud State University; J.D., William Mitchell College of Law; 1981 -

George Bolon, Professor, Physics; B.S., M.S., Oregon State University; Ph.D., University of Utah; 1968 -

Cynthia Bork, Associate Professor, Nursing; B.S.N., College of St. Teresa; M.S., Winona State University; Ed.D., St. Mary's University of Minnesota; 1993 -

Gaylia Borrer, Professor, Counselor Education; B.S., Davis & Elkins College; M.S., West Virginia University; Ph.D., University of Iowa; 1989 -

Borsari, Bruno, Assistant Professor, Biology; D.Ag.Sci., University of Bologna (Italy); Ph.D., University of New Orleans; 2005 -

Barbara Boseker, Professor, Special Education; B.S., M.A., Ph.D., University of Wisconsin; 1995 -

Matthew Bosworth, Associate Professor, Political Science; B.A., Johns Hopkins University; M.A., Ph.D., University of Wisconsin; 1997 -

Richard Bowman, Professor, Education; B.S.Ed., M.S.Ed., Ohio University; Ph.D., University of Toledo; 1995 -

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

David Bratt, Professor, Theatre and Dance; B.A., Calvin College; M.A., University of Iowa; Ph.D., University of California; 1976 -

Rob Brault, Assistant Professor, English; B.A., Macalester College; Ph.D., University of Minnesota; 2000 -

Lynna Brenner, Residence Hall Director, Residence Life; B.S., M.S., South Dakota State University; 2001 -

Lynda Brzezinski, Associate Professor, Counseling Center; B.A., University of Wisconsin; M.S., Ph.D., University of Utah; 2000 -

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 and 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; 1984 -

Elizabeth Burke, Professor, Counseling Center; B.A., St. Norbert College; M.A., St. Mary's University of Minnesota; 1979 -

Chris Buttram, Associate Professor, English; B.A., Emory University; M.A., M.Phil., Ph.D., Columbia University; 2000 -

Marianna Westbrook Byman, Professor, History; B.A., Baylor University; M.S., Winona State University; D.A., University of North Dakota, 1988 -

Seymour Byman, Professor, History; B.A., University of Illinois; M.A., Roosevelt University; Ph.D., Northwestern University, 1970 -

Douglas Callahan, Associate Professor, Physical Education and Recreation; B.S., M.A., University of Denver; Ph.D., University of Kansas, 2000 -

John Campbell, Associate Professor, History; B.A., Wesleyan University; M.A., Ph.D., University of Minnesota; 1996 -

Jane Carducci, Professor, English; B.A., Colorado College; M.A., Ph.D., University of Nevada-Reno; 1992 -

Arlen Carey, Assistant Professor, Social Work; B.A., M.A., Ph.D., University of Texas-Austin; M.S.W., University of Central Florida, Orlando; 2004 -

Eve Caudill, Assistant Professor, Marketing; B.S., DePaul University; Ph.D., University of Illinois at Urbana/Champaign; 2005 -

Ruth Charles, Associate Professor, Social Work; Ph.D., Syracuse University; 1997 -

Gerald W. Cichanowski, Professor, Computer Science; B.A., Winona State University; M.S., University of Minnesota; Ph.D., Michigan State University; 1983 -

Gretchen Cohenour, Professor, Theatre and Dance; B.A., Rockford College; M.F.A., University of Wisconsin; 1989 -

John W. Collins, Associate Professor, Social Work; B.A., Tarkio College, M.S., University of Minnesota; Ph.D., Saint Louis University; 1993 -

Karen Csajko, Associate Professor, Political Science; B.A., M.A., Portland State University; Ph.D., University of California; 1996 -

Debra Cumberland, Assistant Professor, English; B.A., Carleton College; M.A., Ph.D., University of Nebraska-Lincoln; 2002 -

Sarah Curtin, Admissions Counselor; B.A., Winona State University; 1999 -

Linda D'Amico, Associate Professor, Residential College; B.S., M.A., Ph.D., Indiana University; 2000 -

Helen Dachelet, Associate Professor, Sociology;

B.A., B.S., M.S., Winona State University; Psy.D., University of St. Thomas; 1996 -

Ajit Daniel, Professor, Mass Communications; B.A., St. Stephen's College, Delhi University, India; B.S., M.S. Southern Illinois University; Ph.D., The Union Institute; 1982 -

Richard Davis, Director, Publications and Print Shop; B.S., Winona State University; 1971 -

Joyati Debnath, Professor, Mathematics and Statistics; B.Sc., M.Sc., Jadavpur University; M.S., Ph.D., Iowa State University; 1989 -

Narayan Debnath, Professor, Computer Science; B.S., M.Phil., Calcutta University; M.S., Visva Bharati University; M.S., East Carolina University; M.S., Ohio State University; Ph.D., D.Sc., Jadavpur University; 1989 -

Vicki Decker, Director, Career Services; B.A., M.S., Winona State University; 1988 -

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

Keith Dennehy, Professor, Engineering; B.S., Rensselaer Polytechnic Institute; M.S., Youngstown State University; M.B.A., University of Utah; Ph.D., Rensselaer Polytechnic Institute; 1990 -

Russell Dennison, Professor, Library; B.A., Central College; M.A.L.S., University of Wisconsin; 1980 -

Brant Deppa, Professor; B.S., M.S., University of Minnesota, Duluth; Ph.D., University of Minnesota; 1992 -

Shashi Dewan, Professor, Business Administration; B.S., Malviya Regional Engineering College; M.B.A., Ph.D., Indian Institute of Technology; 1988 -

Richard A. Deyo, Professor, Psychology; B.S., Viterbo College; M.A., Ph.D., Bowling Green State University; 1990 -

Toby Dogwiler, Assistant Professor, Geoscience; B.A., Wittenberg University; M.Sc., Mississippi State University; Ph.D., University of Missouri, Columbia; 2002 -

Darrell Downs, Professor, Political Science; B.A., B.S., Montana State University; M.S., Oregon State University; Ph.D., Colorado State University; 1992 -
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- John Ferden*, Director, Auxiliary Enterprises; B.A., Luther College; 1974 -
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- Tom Sawyer*, Associate Professor, Football Coach; B.S., M.S., Winona State University; 1996 -
- Don E. Scheid*, Professor, Philosophy; B.A., Colorado College; M.A., J.D., University of Utah; Ph.D., New York University; 1986 -
- Cindy Scherb*, Associate Professor, Nursing; B.S., Mount Mercy College; M.S., University of Minnesota; Ph.D., University of Iowa, 2002 -
- Don L. Schmidlapp*, Professor, Art; B.F.A., University of Kansas; M.F.A., Indiana University; 1981 -
- Catherine Schmidt*, Professor, Music; B.S., M.S., University of Illinois; Ph.D., University of Wisconsin, Madison; 1991 -
- Gregory G. Schmidt*, Professor, History; B.A., M.A., Ph.D., University of Illinois; 1984 -
- James Schmidt*, Vice President, University Advancement; B.A., Winona State University; M.B.A., University of St. Thomas; Ed.D., University of Minnesota; 1998 -
- Jamie Schneider*, Associate Professor, Chemistry; B.S., Winona State University; Ph.D., University of Minnesota; 2000 -
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- Lisa Schnepfer*, Associate Professor, Nursing; A.D., Western Wisconsin Technical College; B.S., Winona State University; M.S., University of Wisconsin-Eau Claire; 2005 -
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- Paul Schumacher*, Associate Professor, Computer Science; B.A., M.Ed., St. Mary's College of Minnesota; M.A.T., Stanford University; 1988 -
- R. Stephen Schwartz*, Professor, Sociology; B.S., M.S., University of Oklahoma; Post-Graduate Certificate, University of Zambia (University of London, external); Ph.D., University of Iowa; 1973 -
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- Susan B. Sefkow*, Professor, Psychology; B.A., Yale University; M.S., Ph.D., University of Massachusetts-Amherst; 1978 -
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- Richard H. Shields*, Professor, Physics; B.S., M.S., Eastern Illinois University; Ph.D., University of Missouri; 1973 -
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- Richard Hastings*, Library; B.S., M.S., Wayne State University
- Roderick Henry*, History; B.S., M.A., Ball State University
- Donna Heyer*, Registrar's Office; B.S., Winona State University
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- Daniel B. Hoyt*, History; B.A., Dakota Wesleyan University; M.A., Ph.D., University of Iowa
- Robert Hungerford*, Music; B.S., M.S., Julliard School of Music
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- W.W. Johnston*, Counselor Education; B.A., Nebraska Wesleyan; M.A., Ed.D., University of South Dakota
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APPENDIX 2006 - 2007 ACADEMIC CALENDAR

SUMMER TERM - 2006

Summer term classes begin and end at various times between Commencement (Friday, May 5, 2006) and the beginning of Fall Semester 2006 (Monday, August 28, 2006). Check course listings to find out when classes begin and end.

Summer registration begins.....	Monday, March 20, 2006
Last day to apply for admission or file "Intent to Return" for Summer 2006.....	Monday, May 1, 2006
Summer 2006 term begins	Monday, June 5, 2006

Note: Some classes begin before this date. Check online schedule for course begin and end dates.

Last day to apply for arranged classes, internships, or independent studies	Wednesday, June 7, 2006
Last day to add courses that begin on June 5-6.....	Wednesday, June 7, 2006
Last day to drop full term or first 5-week session courses with 100% refund.....	Wednesday, June 7, 2006
Fourth of July holiday (no classes)	Tuesday, July 4, 2006
Last day to notify the Office of Graduate Studies of intent to take Fall 2006 Comprehensive Examinations.....	Monday, July 24, 2006
Last day to apply for Spring 2007 graduation	Monday, July 31, 2006
Official end of Summer Term	Friday, Aug. 11, 2006

- Final examinations are held during the last scheduled class meeting.
- Last day to withdraw ('W' indicator on transcript) is determined by start date of course.

FALL SEMESTER - 2006

Registration begins	Tuesday, April 11, 2006
Last day to apply or file "Intent to Return" for Fall 2006.....	Monday, July 31, 2006
Last day to apply for Spring 2007 graduation	Monday, July 31, 2006
Faculty orientation/development/non-class faculty duty days	Monday-Friday, Aug. 21-25, 2006
New student orientation/registration	Wednesday-Friday, Aug. 23-25, 2006
Classes begin	Monday, Aug. 28, 2006
Last day to add courses without instructor approval.....	Wednesday, Aug. 30, 2006
Last day to add courses.....	Friday, Sept. 1, 2006
Last day to drop courses with tuition refund.....	Friday, Sept. 1, 2006
Fall Semester 2006 tuition due	Friday, Sept. 1, 2006
Last day to apply for arranged courses or independent studies	Friday, Sept. 1, 2006
Labor Day holiday (no classes/offices closed)	Monday, Sept. 4, 2006
Financial aid disbursement	Friday, Sept. 8, 2006
Student fall break day/non-class faculty duty day (no classes/offices open)	Friday, Oct 13, 2006
† Primary Election day (no special events 6-8 P.M./regular classes held as scheduled)	Tuesday, Sept. 12, 2006
Midterm (Last day to make up incompletes from Spring & Summer 2006)	Monday, Oct 16, 2006
Last day to notify the Office of Graduate Studies of intent to take Spring Semester Comprehensive Examinations	Monday, Oct. 16, 2006
† Election Day (no special events 6-8 P.M./regular classes held as scheduled)	Tuesday, Nov. 7, 2006
Last day to withdraw from courses ("W" indicator on transcript)	Thursday, Nov. 9, 2006
Veterans' Day holiday (no classes/offices closed)	Friday, Nov. 10, 2006
Thanksgiving break (no classes W-F/offices closed Th-F).....	Wednesday-Friday, Nov. 22-24, 2006
Non-class faculty duty day.....	Wednesday, Nov. 22, 2006
Classes resume	Monday, Nov. 27, 2006
Registration for Spring 2007 begins.....	Monday, Nov. 27, 2006
Last day to apply for Fall 2007 graduation	Friday, Dec. 8, 2006
Final examinations.....	Monday-Thursday, Dec. 11-14, 2006
Fall 2006 Commencement.....	Friday, Dec. 15, 2006
Grading period/non-class faculty duty days.....	Monday-Wednesday, Dec. 18-20, 2006
Grades due, 9:00 A.M.....	Wednesday, Dec. 20, 2006

SPRING SEMESTER - 2007

Registration begins.....	Monday, Nov. 27, 2006
Last day to apply or file "Intent to Return" for Spring 2007	Monday, Dec. 4, 2006
Last day to apply for Fall 2007 graduation	Friday, Dec. 8, 2006
Faculty orientation/development/non-class faculty duty days.....	Monday-Friday, Jan. 8-12, 2007
New student orientation/registration.....	Friday, Jan. 12, 2007
Martin Luther King holiday (no classes/offices closed)	Monday, Jan. 15, 2007
Classes begin.....	Tuesday, Jan. 16, 2007
Last day to add courses without instructor approval	Thursday, Jan. 18, 2007
Last day to add courses.....	Monday, Jan. 22, 2007
Last day to drop courses with tuition refund.....	Monday, Jan. 22, 2007
Spring Semester 2007 tuition due.....	Monday, Jan. 22, 2007
Last day to apply for arranged courses or independent studies	Monday, Jan. 22, 2007
Financial aid disbursement	Friday, Jan. 26, 2007
All University Assessment Day (no classes/offices open)	Tuesday, Feb. 13, 2007
Spring Break (no classes/offices open March 5-9)	March 3-11, 2007
Midterm (Last day for undergraduates to make up incompletes from Fall 2006)	Monday, March 12, 2007
Last day to notify the Office of Graduate Studies of intent to take Summer Comprehensive Examinations	Monday, March 12, 2007
Classes resume	Monday, March 12, 2007
Last day to withdraw from courses	Thursday, April 5, 2007
Student spring break day/non-class faculty duty day (no classes/offices open)	Friday, April 6, 2007
Registration for Summer & Fall 2007 begins	Monday, April 16, 2007
Final examinations.....	Monday-Thursday, April 30- May 3, 2007
Spring 2007 Commencement	Friday, May 4, 2007
Grading period/non-class faculty duty days	Monday-Wednesday, May 7-11, 2007
Grades Due, 9:00 A.M.	Wednesday, May 9, 2007

SUMMER TERM - 2007

Summer term classes begin and end at various times between Commencement (Friday, May 4, 2007) and the beginning of Fall Semester 2007 (Monday, August 27, 2007). Check course listings to find out when classes begin and end.

Summer registration opens.....	Monday, March 19, 2007
Last day to apply for admission or file "Intent to Return" for Summer 2007.....	Tuesday, May 1, 2007
Summer 2007 term begins	Monday, June 4, 2007

Note: Some classes begin before this date. Check online schedule for course begin and end dates.

Last day to apply for arranged classes, internships, or independent studies	Wednesday, June 6, 2007
Last day to add courses that begin on June 4-5	Wednesday, June 6, 2007
Last day to drop full term or first 5-week session courses with 100% refund.....	Wednesday, June 6, 2007
Fourth of July holiday (no classes/offices closed),	Wednesday, July 4, 2007
Last day to notify the Office of Graduate Studies of intent to take Fall 2007 Comprehensive Examinations.....	Monday, July 23, 2007
Last day to apply for Spring 2008 graduation	Monday, July 30, 2007
Summer term ends	Friday, Aug. 10, 2007

- Final Examinations are held during the last scheduled class meeting.
- Last day to withdraw ("W" indicator on transcript) is determined by start date of course.

2007-2008 ACADEMIC CALENDAR

FALL SEMESTER - 2007

Registration begins	Tuesday, April 10, 2007
Last day to apply or file "Intent to Return" for Fall 2007.....	Monday, July 30, 2007
Last day to apply for Spring 2008 graduation	Monday, July 30, 2007
Faculty orientation/development/non-class faculty duty days.....	Monday-Friday, Aug. 20-24, 2007
New student orientation/registration	Wednesday-Friday, Aug. 22-24, 2007
Classes begin	Monday, Aug. 27, 2007
Last day to add courses without instructor approval.....	Wednesday, Aug. 29, 2007
Last day to add courses.....	Friday, Aug. 31, 2007
Last day to drop courses with tuition refund.....	Friday, Aug. 31, 2007
Fall Semester 2007 tuition due	Friday, Aug. 31, 2007
Last day to apply for arranged courses or independent studies	Friday, Aug. 31, 2007
Labor Day holiday (no classes/offices closed)	Monday, Sept. 3, 2007
Financial aid disbursement	Friday, Sept. 7, 2007
Student fall break day/non-class faculty duty day (no classes/offices open)	Friday, Oct 12, 2007
Midterm (Last day to make up incompletes from Spring & Summer 2007)	Monday, Oct 15, 2007
Last day to notify the Office of Graduate Studies of intent to take Spring Semester Comprehensive Examinations	Monday, Oct. 15, 2007
Last day to withdraw from courses ("W" indicator on transcript)	Thursday, Nov. 8, 2007
Veterans' Day holiday (no classes/offices closed)	Monday, Nov. 12, 2007
Thanksgiving break (no classes W-F/offices closed Th-F).....	Wednesday-Friday, Nov. 21-23, 2006
Non-class faculty duty day,	Wednesday, Nov. 21, 2007
Classes resume	Monday, Nov. 26, 2007
Registration for Spring 2008 begins.....	Monday, Nov. 26, 2007
Last day to apply for Fall 2008 graduation	Friday, Dec. 7, 2007
Final examinations.....	Monday-Thursday, Dec. 10-13, 2007
Fall 2007 Commencement.....	Friday, Dec. 14, 2007
Grading period/non-class faculty duty days.....	Monday-Wednesday, Dec. 17-19, 2007
Grades due, 9:00 A.M.....	Wednesday, Dec. 19, 2007

SPRING SEMESTER - 2008

Registration begins.....	Monday, Nov. 26, 2007
Last day to apply or file "Intent to Return" for Spring 2008	Monday, Dec. 3, 2007
Last day to apply for Fall 2008 graduation	Friday, Dec. 7, 2007
Faculty orientation/development/non-class faculty duty days.....	Monday-Friday, Jan. 7-11, 2008
New student orientation/registration.....	Friday, Jan. 11, 2008
Classes begin.....	Monday, Jan. 14, 2008
Last day to add courses without instructor approval.....	Wednesday, Jan. 16, 2008
Last day to add courses.....	Friday, Jan. 18, 2008
Last day to drop courses with tuition refund.....	Friday, Jan. 18, 2008
Spring Semester 2008 tuition due	Friday, Jan. 18, 2008
Last day to apply for arranged courses or independent studies	Friday, Jan. 18, 2008
Martin Luther King holiday (no classes/offices closed)	Monday, Jan. 21, 2008
Financial aid disbursement	Friday, Jan. 25, 2008
All University Assessment Day (no classes/offices open)	Tuesday, Feb. 5, 2008
Spring Break (no classes/offices open March 3-7).....	March 1-9, 2008
† Precinct Caucus Day (no special events 6-8 p.m./regular classes held as scheduled)	Tuesday, March 4, 2008
Midterm (Last day for undergraduates to make up incompletes from Fall 2007)	Monday, March 10, 2008
Last day to notify the Office of Graduate Studies of intent to take Summer Comprehensive Examinations	Monday, March 10, 2008
Classes resume.....	Monday, March 10, 2008
Last day to withdraw from courses	Wednesday, April 3, 2008
Student spring break day/non-class faculty duty day (no classes/offices open)	Friday, April 4, 2008
Registration for Fall 2008 begins	Monday, April 14, 2008
Final examinations.....	Monday-Thursday, April 28-30, May 1, 2008
Spring 2007 Commencement	Friday, May 2, 2008
Grading period/non-class faculty duty days.....	Monday-Wednesday, May 5-7, 2008
Grades due, 9:00 A.M.....	Wednesday, May 7, 2008

SUMMER TERM - 2008

Summer term classes begin and end at various times between Commencement (Friday, May 2, 2008) and the beginning of Fall Semester 2008 (Monday, August 25, 2008). Check course listings to find out when classes begin and end.

Summer registration opens	Monday, March 17, 2008
Last day to apply for admission or file "Intent to Return" for Summer 2008.....	Thursday, May 1, 2008
Summer 2008 term begins	Monday, June 2, 2008
Note: Some classes begin before this date. Check online schedule for course begin and end dates.	
Last day to apply for arranged classes, internships, or independent studies	Wednesday, June 4, 2008
Last day to add courses that begin June 9-10	Wednesday, June 4, 2008
Last day to drop full term or first 5 week session courses with 100% refund	Wednesday, June 4, 2008
Fourth of July holiday (no classes)	Friday, July 4, 2008
Last day to notify the Office of Graduate Studies of intent to take Fall Comprehensive Examinations	Monday, July 21, 2008
Last day to apply for Spring 2009 graduation	Monday, July 28, 2008
Summer term ends	Friday, Aug. 8, 2008

- Final Examinations are held during the last scheduled class meeting.
- Last day to withdraw ('W' indicator on transcript) is determined by start date of course

Note: The University calendar is subject to modification or interruption due to occurrences such as fire, flood, labor disputes, service interruption, natural disaster, civil disorder, war, and changes in MnSCU Board or WSU Policy. 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.

†Excerpt: 204C.03 Public meetings prohibited on election day. Subd. 2. State colleges and universities. Except for regularly scheduled classes, no Minnesota state college or university shall schedule an event between 6:00 P.M. and 8:00 P.M. on the day that an election is held in any political subdivision in which the university or college is located. Copyright 2005 by the Office of Revisor of Statutes, State of Minnesota.

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