# $\geqslant$ U <br> WINONASTATE UNIVERSITY 

# Undergraduate Catalog 2010-2012 

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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.

It is my pleasure to welcome you to Winona State University! I have been here five years now, and I am more excited than ever about what we have to offer our students and the community we serve. You are joining a university that has embraced several themes that enrich our shared world and that will prepare you to make a difference wherever you go and whatever you do. As the 2010 academic year begins, we will celebrate the opening of our Integrated Wellness Center and a new residence hall complex. Health and wellness in our individual lives, in our working relationships, and in our environment are all important values of ours. We are a tobaccofree campus. We signed the
 American College and University Presidents Climate Commitment and, thereby, pledged to reduce the impact of our campus on the environment and to become, in time, carbon neutral. WSU is truly "Going Green."

WSU is recognized as a national leader in higher education. We continually strive for inclusive excellence in every aspect of University life. Our mission is to educate and enlighten our citizenry as a distinctive institution: A community of learners improving our world. I encourage you to become familiar with our mission statement. You will see it on banners all around campus. Pause a moment as you walk by those banners-now carrying our sesquicentennial flame-and think about how you can help us become a community of learners who can, indeed, make a difference in the lives of others. I believe that this mission will inspire you and guide you as you undertake your exciting journey at WSU.

You are joining WSU as we undertake a grand challenge to prepare our students for life in the 21st century, to explore what you will need to know as you prepare for life in a rapidly changing world, and to design new ways to join you in that journey. By our own actions and how we live out our values, we want to show you what it means to live responsible, productive, and creative lives, inspired by what we learn and by the people we meet.

I hope your time at WSU will be both challenging and inspiring. May your time here offer you many wonderful experiences that you will cherish in the years to come, as you, in turn, reach out to enrich the lives of others.


Judith A. Ramaley
President

## 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 traffic light, take a left on Hwy. 17 (Homer Rd.) and go to the next traffic light. Turn left on U.S. Hwy. 14/61. Follow 61 to Huff Street. Turn right on Huff; then take a right on Sarnia Street. 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 right on Huff; then take a right on Sarnia Street. Turn right 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.
Take U.S. Hwy. 14 east into Winona. Turn right on U.S. Hwy. 14/61. Follow 61 to Huff Street. Turn left on Huff; then take a right on Sarnia Street. Turn left on Main Street at fourway stop. Cross the railroad tracks, go one block, turn left on Mark Street. You are on campus.



WEST CAMPUS

## MAIN CAMPUS

Maxwell Hall: Conference Center; Children's Center; Warrior Hub; Career Services; Department of Health, Exercise \& Rehabilitative Sciences, and administrative offices.
Stark Hall: College of Nursing and Health Sciences, Nursing, Composite Materials Engineering, Science Laboratory Center
Alumni House: Emeriti Center
Somsen Hall: College of Business; Business Administration, Economics, Finance, Foreign Languages, Marketing, and administrative offices.
Phelps Hall: Mass Communication and Psychology, Television Studio
Pasteur Hall: College of Science \& Engineering, Biology, Chemistry, Geoscience, and Physics
Watkins Hall: Computer Science and Ait
Conway Hall: Women's residence hall
Shepard Hall: Co-ed residence hall
Morey Hall: Co-ed residence hall
Richards Hall: Co-ed residence hall
Lucas Hall: Women's residence hall
Prentiss Hall: Men's residence hall
Gildemeister Hall: College of Education; Counselor Education; Education; Educational Foundations, Research, and Technology; Mathematics \& Statistics; Special Education
Performing Arts Center: Communication Studies, Music, Theatre and Dance
Memorial Hall: Physical Education \& Sport Science; Recreation, Tourism \& Therapeutic Recreation; Dance Studio
Wellness Center: Counseling Center, Student Health
Darrell W. Krueger Library: Student Support Services, Tutoring Services, and University Archives


WINONA
STATE UNIVERSITY Main Campus


## LEGEND

$\square$ Gold Parking
$\square$ Silver Parking
Purple Parking
Metered Parking
Shuttle Bus Stop $\nabla$ Accessible Entrance

Gold Lots

1. Gold Main Lot 2. Gold Library Lot 3. Gold Minné Lot 4. Gold 24 Hour Lot 5. Gold King Street Lot 6. Gold Pasteur Lot 7. Gold Winona Street Lot 8. Gold Central Lutheran Lot 9. Gold Stark Lot 10. Gold Maxwell Lot 11. Gold First Congregational Lot 12. Gold Cathedral Lot

Purple Lots
13. Purple Main Street Lot 14. Purple Johnson Street Lot 15. Purple Belleview Lot 16. Purple Severson Lot $\square$ Silver Lots 17. North Silver Winona Street Lot 18. North Silver King Street Lot 19. North Silver Kryzsko Lot 20. South Silver Turnaround Lot 21. South Silver Sarnia Street 21. South Silver Sarnia Street
22. South Silver Huff Street

Minné Hall: College of Liberal Arts; English, History, Philosophy, Political Science, Social Work, and Sociology
Kryzsko Commons: Student Center, Jack Kane Dining Center
Sheehan Hall: Women's residence hall
Maxwell Field at Alltel Stadium
Wabasha Hall: Fitness Center

## WEST CAMPUS

Lourdes Hall: Co-ed residence hall, Residential College Maria Hall: Co-ed residence hall
Tau Center: Co-ed residence hall, conferencing facility

## EAST CAMPUS

## University Apartments at East Lake

(Franklin and Sarnia Streets): Co-ed residential apartments.

Note: All buildings and parking lots accessible to the handicapped. All buildings except the Alumni House are equipped with elevators.


ROCHESTER CAMPUS


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

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 the leaders of the 21st century to apply their knowledge to solve complex and ever-changing problems effectively. Winona State University is a community of learners improving our world.

## HISTORICAL VIEW: 150+ YEARS OF ACADEMIC EXCELLENCE

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.

The State Normal School became Winona Teachers College in 1921 and was authorized to grant the bachelor's 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 organizations, 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 two campuses in Winona and Rochester and is a member of the Minnesota State Colleges and Universities system. The original campus in Winona primarily serves traditional students; whereas, the Rochester campus focuses primarily on non-traditional students and graduate programs. In 2008, Winona State University celebrated its sesquicentennial, marking 150 years of service to students, the community, and the world.

## DISTINCTIVES

- Quality and Value: For 14 consecutive years, Winona State University (WSU) has been featured as one of America's 100 Best College Buys for quality and value; for six consecutive years, The Princeton Review has been named WSU among the "Best in the Midwest." In the 2010 edition of U. S. News \& World Report's "America's Best Colleges," WSU ranks among the top 50 public and private institutions in the Midwest Region Master's Category.
- e-Warrior Digital Life and Learning Program: Students select from approved laptop models and enjoy wireless access from anywhere on campus. The program gives students the opportunity to personalize and enhance their college experience.
- Darrell W. Krueger Library was designed to provide a wealth of information resources and services to the WSU community and beyond. The library holds more than 350,000 volumes and provides access to approximately 50,000 electronic periodicals and texts and more than one million microfilm documents.
- The University is home to the Child Advocacy Studies program, one of the most progressive model undergraduate curricula in the country. The multidisciplinary program is designed to train undergraduates-future teachers, law enforcement officers and health care professionals-in the identification and prevention of child abuse.
- Sustainability is a core University-wide commitment. WSU is a signatory of the American Colleges and University Presidents Climate Commitment as well as a partner in Sustain Winona, a communitybased initiative dedicated to energy conservation, renewable energy technologies, and pollution prevention strategies.
- Breathe Free: In January 2009, the University became tobacco-free, providing a safe and healthy environment for work and study for students, employees, and visitors.
- Campus Safety: In 2009, the University was named one of the 25 safest campuses in the United States based on an independent review of data reported to the U.S. Department of Education under the Federal Clery Act.
- Student Involvement: WSU offers students the opportunity to get involved in student government and nearly 300 social, service, and professional clubs and organizations that reflect a broad spectrum of student interests. The University also sponsors professional cultural programs as well as student theatrical, musical, and dance performances.
- Top-Notch Varsity Sports: WSU is home to 15 men's and women's NCAA-II varsity sports: women's basketball, cross country, golf, gymnastics, soccer, softball, tennis, track and field, volleyball; men's baseball, basketball, cross country, football, and golf.


## WSU CAMPUSES

Two campuses make up Winona State University: the original campus in Winona and Winona State University-Rochester.

## Winona Campus

The original 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 Winona campus provides students ample facilities for educational activities that combine traditional charm with convenience and state-of-theart technology. All academic buildings are extensively wired for computer access, and wireless Internet access is available throughout the campus. As a feature of the e-Warrior Digital Life and Learning Program, many classrooms offer data and power connections for each student.

Winona's west residential campus is about one mile from the original campus and is located in Lourdes Hall, Maria Hall, and the Tau Center. It 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 original campus. 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.

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

- Integrated Wellness Complex: The 90,000-square-foot Integrated Wellness Complex will combine health and physical education, fitness, recreational sports, intercollegiate athletics, student health services, counseling services, and teaching and research space to educate a new generation of health care professionals. The facility is scheduled to open summer 2010.
- Phelps Hall: The oldest building on campus recently underwent a major transformation to provide upgraded facilities for the Mass Communication department, including a photo studio, TV studio, multimedia editing lab, and new quarters for the campus radio station (KQAL).
- Maxwell Hall: The recently renovated Maxwell Hall features an integrated academic services center, called the Warrior Hub, to assist students in accessing all the information they need in one convenient location. The building is also home to the National Child Protection Training Center and its state-of-the-art training facility, which includes a mock house and mock courtrooms.
- Kryzsko Commons: The campus Student Center has been expanded and renovated to increase the space available for meeting rooms and to provide additional food venues. Kryzsko Commons houses dining facilities, lounge and recreation areas, offices for student organizations, student study space, and meeting rooms.
- Science Laboratory Center (SLC): This contemporary facility was designed to create much-needed, modern academic space. The SLC has 118,000 square feet of space devoted to laboratories, a multimediaequipped auditorium, student study spaces, and a vast atrium where even the floor and massive rock wall promote learning opportunities.
- New Residence Hall: Opening in July 2010, the new residence hall is a 408 -bed residential complex that features suite-style living. In total, the University complex of residential housing includes East Lake Apartments and nine residence halls and is home to more than 2,500 students.


## Winona State University-Rochester

Since 1917, Winona State University has served students in Rochester and the surrounding area. A number of years ago, the University entered into a partnership with Rochester Community and Technical College (RCTC) to
establish the University Center Rochester (UCR). Since its inception, over 5,000 bachelor's and master's students have graduated from UCR programs. Today, WSU-Rochester offers degree programs from baccalaureate through doctoral levels.

On an annual basis, WSU-Rochester serves 1,400 students. Approximately 40 resident faculty and an additional 20 Winona campus faculty are dedicated to the Rochester campus each academic term. Because of the Rochester location, WSU-Rochester offers unique opportunities to collaborate with businesses, schools, and organizations in the area through specialized programs in computer science, health care, business, and education

Housed with RCTC in a modern, integrated building on the UCR campus, WSU-Rochester features modern classroom facilities and technology-enhanced classrooms. The campus includes a new state-of-the-art Health Sciences building, which has several "smart" rooms, clinical nursing laboratory areas, and high fidelity simulation. Sophisticated technology links WSU-Rochester students with the Winona campuses and the world.
WSU students have access to the Goddard Library, which houses 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 recently constructed fitness and recreation center with indoor courts and a running track.

## THE COMMUNITIES <br> Winona

The city of Winona (population 27,000) 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. Winona State University is 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 is located on the eastern edge of the city of Rochester, which is a cosmopolitan city of more than 100,000 residents. Rochester is consistently branded as one of "America's most livable cities." It 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 WSU-Rochester, several other institutions offer programs in Rochester, including University of Minnesota-Rochester, Saint Mary's University of Minnesota, 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. With an enrollment of approximately 8,600 undergraduate and graduate students, WSU is a mid-sized public university committed to small class sizes and challenging, rigorous academic standards.
Faculty and administrators are involved with students, facilitate cooperative and active learning, and demonstrate respect for diverse talents and ways of knowing. Faculty members 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 as well as 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 its members. 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 60 undergraduate degree programs, 10 pre-professional programs, 23 Master's (MS) degree programs, an Educational Specialist (EdS) degree, a Doctor of Nursing Practice (DNP) degree, and several undergraduate and graduate licensure programs.

All programs are offered by highly qualified faculty in an environment committed to a passion for 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:

- Accreditation Board for Engineering and Technology (ABET)
- Commission for Accreditation of Athletic Training Education (CAATE)
- Commission on Collegiate Nursing Education (CCNE)
- Council for Accreditation of Counseling and Related Educational Programs (CACREP)
- Council on Social Work Education (CSWE)
- Higher Learning Commission: North Central Association of Colleges and Schools (HLC)
- National Association for the Education of Young Children (NAEYC)
- 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 to Advance Collegiate Schools of Business (AACSB)
- Association for Childhood Education International (ACEI)
- Council for Exceptional Children (CEC)
- 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 (ACS)
- Minnesota Board of Nursing (Entry Level Undergraduate Nursing)
- Minnesota Board of School Administrators
- Minnesota Board of Teaching
- National Council for Therapeutic Recreation


## Undergraduate Degrees and Programs

| Bachelor of Arts Majors | Bachelor of Science Majors (Teaching) |
| :--- | :--- |
| Art | Art |
| Communication Studies | Biology Life Science |
| Economics | Business Education |
| English | Chemistry |
| Geoscience | Communication Arts and Literature |
| Global Studies | Earth Science |
| History | Elementary Education |
| Law and Society | Health Promotion |
| Mass Communication | Mathematics: Secondary |
| Mathematics | Music |
| Music | Physical Education |
| Political Science | Physical Science |
| Professional Studies | Physics |
| Psychology | Social Science/History |
| Sociology | Spanish |
| Spanish | Special Education |
| Theatre Arts | Teaching English as a Second Language |
|  |  |
| Bachelor of Science Majors (Non-Teaching) | Bachelor of Social Work |
| Accounting | Social Work |
| Athletic Training |  |
| Biochemistry | Certificates |
| Biology | Organizational Leadership |
| Business Administration | Two-Year Undergraduate Associate in Arts |
| Chemistry | Sperial Licensure Preparation Programs |
| Clinical Laboratory Science | Developmental/Adapted Physical Education |
| Composite Materials Engineering |  |
| Computer Science | Pre-Professional Sequences |
| Cytotechnology | Pre-Dentistry |
| Exercise and Rehabilitative Science | Pre-Engineering |
| Feosce | Pre-Law |
| Health Promotion | Pre-Medicine |
| Human Resources Management | Pre-Optometry |
| Management Information Systems | Pre-Pharmacy |
| Marketing | Pre-Physical Therapy |
| Mathematics: Statistics | Pre-Physician Assistant |
| Music | Pre-Podiatry |
| Nursing | Pre-Veterinary Medicine |
| Paralegal |  |
| Physics |  |
| Public Administration |  |
| Recreation, Tourism, and Therapeutic Recreation |  |
| Sociology: Criminal Justice |  |
|  |  |

Office of Admissions
Maxwell Hall (800 DIAL WSU or 507-457-5100)
170 West Sanborn Street
www.winona.edu
Email: admissions@winona.edu
The Office of Admissions is responsible for recruiting prospective students to WSU, evaluating and approving applications for admissions, recommending newly admitted students for scholarships, facilitating student transfer to WSU from other post-secondary institutions, evaluating international transcripts for WSU equivalency, and verifying eligibility for veterans' 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 and an acceptable score on one of the college entrance examinations.

## NEW FIRST-YEAR STUDENT ADMISSION

## High School Preparation Requirements

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

- Four years of English (including composition, literature, and speech).
- Three years of mathematics, including two years of algebra and one year of geometry.
- Three years of science, including one year of biology and one year of either chemistry or physics. All courses should include laboratory experiences.
- Three years of social studies, including one year of U.S. History and one year of geography or its equivalent is highly recommended.
- Two years of a single world language (including non-English native languages and American Sign Language).
- One 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.


## Application Process

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 early March.

1. Complete a WSU Admission Application. Application forms are available online at www.winona.edu or at the Office of Admissions (Maxwell Hall).
2. Return the completed application to the WSU Office of Admissions with a $\$ 20$ non-refundable fee, or submit the fee electronically.
3. Request that your official high school transcript be forwarded to the Office of Admissions; the transcript should include high school rank.
4. Request that the ACT/SAT testing agency send your official score to the WSU Office of Admissions. The WSU ACT test code is 2162. The WSU SAT test code is 6680 .

## 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, have an ACT score of 26 or above or an SAT score (Critical Reading and Mathematics) of 1190 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 who meet the following requirements are admitted with university admission:
a) Students who have an ACT score of 21, are in the top two-thirds of their graduating class, and have completed the 16 units of high school preparation requirements.
b) Students who score a composite 18,19 , or 20 on the ACT and are ranked in the top $50 \%$ of their graduating class, and have completed the 16 units of high school preparation requirement.

Students admitted with university admission status attend an orientation and registration program during the mid-summer preceding their first year at Winona State University.

## 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 31 for more information about the requirements related to immunizations and medical history.

## 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 from high school faculty.

## TRANSFER STUDENT ADMISSION

## Preparation 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.
Note: Although WSU does not offer correspondence courses, the University will transfer correspondence courses from accredited colleges and universities.

## 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 $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{P}$, or the equivalents were attained.
- Technical College Students: Students transferring from a technical college can receive up to a 16 -credit general elective package of their technical courses. General education courses will be accepted on a course-by-course basis. To apply, students must send their official high school and technical college transcripts and request the ACT/SAT testing agency to send their official ACT/SAT scores to the WSU Office of Admissions.
- 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. The student should write a letter of appeal to the Director of Admissions, outlining the unique circumstance. The letter should be supported by appropriate documentation and two letters of recommendation from high school or college faculty.

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 that the registrar at each college attended send an official transcript directly to the WSU Office of Admissions. If a transfer student has previously attended a MnSCU campus, WSU will retrieve the transcripts electronically. 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. Transferred credits should have at least a "D" grade to transfer.

## Transfer Application Process

1. Students should submit a transfer application and $\$ 20$ application fee as early as they can before the deadline, which is 45 days prior to the semester in which the student expects to begin.
2. Students should request an official transcript from every institution they have attended. If a transfer student has previously attended a MnSCU campus, WSU will retrieve the transcripts electronically. 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 is 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. Students can appeal if they are not satisfied with the evaluation.

## Transfer Student Rights and Appeal Process

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 is as follows:
a. Students submit a completed appeals form. (Appeals forms are available at the Warrior Hub.) 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).
Note: If a student is not satisfied with the college or university transfer appeal decision, the student may appeal to the Senior Vice Chancellor of Academic and Student Affairs at the Office of the MnSCU Chancellor.


## 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 ADMISSION

Office of International Services and Cultural Outreach Kryzsko Commons, Room 128 (507-457-5303)
www.winona.edu/international
Email: intrec@winona.edu
Prospective international students who will hold F-1 visa status are welcome to apply for admission to Winona State University. Applicants should request the necessary application information from the Office of International Services and Cultural Outreach (see above). Prospective international students should follow these procedures:

1. Submit a completed WSU international admission application and $\$ 20$ application fee. Applications are available at the International Services website above or by email. The fee should be payable to Winona State University in U.S. dollars. 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.
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, including language schools. Please note that syllabi (course descriptions) should be provided for all non-U.S. college or university subjects. This is essential for the correct awarding of transfer credit. English translations must accompany any foreign language documents.
3. Request that an original or a certified true copy of your TOEFL score be forwarded to the WSU Office of International Services. The WSU code is 6680 . The TOEFL score must meet the minimum of 190 on the computerized version, 520 on the paper version, or 68 on the Internet version.
4. Include either an original or notarized financial support statement from each sponsor or an original or notarized official bank statement for personal savings. Such statements must provide proof of financial responsibility for the duration of study at WSU. The amount of available funds must be indicated in U.S. dollars and dated within six months of the application date. The international application includes specific forms to be used 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 that 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 accepted by the University. The English test, administered during orientation week, determines the appropriate English placement.
- Cross-cultural scholarships are available to all students accepted for admission. Based on the TOEFL score, Presidential Honor Scholarships are available to students who come to the University as freshmen with no transfer credits. To request additional information, contact International Services at intrec@winona.edu.
International students must report to the Office of International Services upon arrival to 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.


## SPECIAL ADMISSIONS CATEGORIES

## Adult Entry Students

Outreach and Continuing Education Department (OCED)
Somsen Hall, Room 106 (507-457-5080)
The Adult Entry Program serves the educational needs of adult students. The program is for adults who want to pursue an Associate in Arts or a baccalaureate degree. This innovative program features flexible admission requirements. The application process involves an assessment and review of prior learning, which the applicant has acquired through informal education or life/work experience. (A processing fee will apply.) WSU validates credits earned; the credits may apply toward a student's degree program. For more information, contact the OCED office.

## Non-Matriculated Undergraduate Students

Outreach and Continuing Education Department (OCED)
Somsen Hall, Room 106 (507-457-5080)
The Non-Matriculated Undergraduate Student Program allows adults who are not seeking a degree to 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 six 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 OCED office for more information.

## Post-Secondary Enrollment Options (PSEO) 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.

## Previous Undergraduate Degree Students

Students are classified as Previous Undergraduate Degree 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 Previous Bachelor's Degree 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


## Returning Students

WSU students who have not attended the University for one semester (summer excluded) are classified as returning students. Returning students must complete the Intent to Return form, which is available in the Warrior Hub (Maxwell Hall, 2nd floor) or at www.winona.edu/registrar. The Registrar's Office then evaluates the student's record for possible readmission.

Students who intend to take further coursework at WSU are considered to be returning transfer students if they have attended another college or university (summer excluded) since they last attended WSU. Official transcripts are required for all college/university attendance. Returning transfer students must complete the WSU Application for Transfer and Returning Transfer Admission form, 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 his or her 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, credit to transfer to another school, or if they have no intention of earning a degree at WSU. Applicants must provide the following:

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. This step is applicable for 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.

## PLACEMENT TESTING

Incoming students with no college credit in English and/or mathematics will be placed in their initial English or mathematics class based on their ACT sub-scores. Students who are not satisfied with their ACT placement or who do not present ACT scores may take the Accuplacer ${ }^{\circledR}$ exams for placement. Additional information about the Accuplacer ${ }^{\circledR}$ exams can be found at www.winona.edu/advising/placement.htm. Information about specific dates, times, and locations of exams is available in Advising Services (Maxwell Hall, Third Floor; 507-457-5878) and at www.winona.edu/advising.

## VETERANS ASSISTANCE

Veterans Affairs Office
Maxwell Hall (507-457-5109)
WSU is approved by the State Approving Agency for Veterans Training. Students should present their eligibility certificates to the Veterans Affairs Office when they enroll.

## Policies and Procedures

1. A student's 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 Affairs 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 Affairs 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 Affairs 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 Affairs 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 Affairs Office.
8. Academic Load: Full-time training requires 12 semester hours (S.H.) of undergraduate credit or 9 S.H. of graduate credit. Three-fourths time training requires $9 \mathrm{~S} . \mathrm{H}$. of undergraduate credit or $7-8 \mathrm{~S} . \mathrm{H}$. 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 Affairs 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.

## COLLEGE-LEVEL EXAMINATION PROGRAM (CLEP)

Office of Admissions
www.winona.edu/admissions
Maxwell Hall (507-457-5100)
Email: admissions@winona.edu
The College-Level Examination Program ${ }^{\circledR}\left(\right.$ CLEP $\left.^{\circledR}\right)$ is a College Board program that allows students to earn college credit by demonstrating their mastery of college-level material in introductory subjects. CLEP provides students of any age the opportunity to demonstrate college-level achievement through a program of exams in undergraduate college courses. CLEP exams do not relate to a specifically designed college-level course taught in high school. Rather, CLEP exams test mastery of collegelevel materials acquired in a variety of ways including general academic instruction, significant independent study, or extracurricular work.
CLEP exams cover material taught in courses that most students take as requirements in the first two years of college. A college usually grants the same amount of credit to students earning satisfactory scores (50 or higher) on the CLEP examination as it grants to students successfully completing the designated course.

CLEP Examination
Accounting
American Government
American Literature
Analyzing and Interpreting Literature
Biology
Calculus
Chemistry
College Algebra Math 115, College Algebra
College Mathematics
English Literature
French Language
Freshman College Composition
German Language
History of the United States I
History of the United States II
Human Growth and Development
Humanities
Information. Systems \&
Computer Applications
Introduction to Business Law
Intro. to Educational Psychology
Introductory Sociology
Introductory Psychology
Natural Sciences
Precalculus
Principles of Macroeconomics
Principles of Microeconomics
Principles of Management
Principles of Marketing
Social Science and History
Spanish Language
Western Civilization I
Western Civilization II
Western Civilization I AND
Western Civilization II

WSU Credit for
General elective
Political Science 120, Introduction to American Politics
English 120, Introduction to Literature

Math 100, Survey of Mathematics
English 120, Introduction to Literature

History 150, U.S. History to 1865
History 151, U.S. History Since 1865
Psychology 250, Developmental Psychology
Electives, Humanities in University Studies

General Elective
Elective, Social Science in University Studies
Sociology 150, Introduction to Sociology
Psychology 210, Intro. to Psychological Science
Elective, Natural Science in University Studies
Math 120, Precalculus
Economics 202, Principles of Macroeconomics
Economics 201, Principles of Microeconomics
General Elective
Marketing 300, Principles of Marketing
Elective, Social Science in University Studies
History 120, Western Civilization to 1500
History 122, Western Civilization 1815 to Present
History 121, Western Civilization 1500-1815 AND
History 122, Western Civilization 1815 to Present

## ADVANCED PLACEMENT

Office of Admissions
Maxwell Hall (507-457-5100)
Email: 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.

Office of Student Accounts
Maxwell Hall (507-457-5076)

## TUITION

For the fall and spring semesters, undergraduate tuition for full-time students (12-18 credits) on the Winona campus 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 percredit 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 though 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 Health Services Office (Wellness Center).

Laptop Program Fee: All full-time students attending the Winona campus (including transfer students) are required to participate in the e-Warrior: Digital Life and Learning Program, which provides them with a fully configured PC or Macintosh laptop computer, software, network access, technical support, and training regardless of the number of completed credits. (Students are considered to be full-time if they are enrolled in 12 semester hours or more. Part-time students are not required to participate in the e-Warrior Program; however, they can pay the laptop program fee and receive a laptop computer.) Please consult with the Office of Admissions or the Office of Student Accounts for current information, or direct any questions about this program to WSU's Technical Support Center by email (techsupport@winona.edu) or phone (507-457-5240). Complete information for this program is available at www.winona.edu/it/ programdetails.asp.

Late Payment Fee: Payment in full for all tuition, fees, and residence hall charges must be paid by the payment due dates published in the current class schedule and on the WSU website at www.winona.edu/billing. Any payment accepted after the payment due dates will be assessed a late fee. Students are expected to pay all accounts to the University when they are due. The University is authorized to withhold the issuance of diplomas and official transcripts 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 (MSUSA) 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; 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. Funds are distributed to a number of areas including the Student Senate, university clubs, and the student newspaper (the Winonan).

Student Union Facility Fee: The student union facility fee is assessed to all students attending classes through the Winona campuses. The rate is determined by a committee consisting of members of the Student Senate and university administrators. Funds are used to finance the construction, maintenance, and daily operation of Kryzsko Commons.

Technology Fee: The technology fee is assessed to all students attending classes for credit. The rate is determined by the university administration; funds are used to support the student computer labs and academic computer services.

Wellness Center Fee: The wellness center fee is assessed to all students attending classes through the Winona campuses. Funds are used to finance the construction, maintenance, and daily operation of the Wellness Center.

## 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 27).
A student who withdraws from the University should obtain an Application for Refund form from the Registrar's Office (Maxwell Hall). 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; check with the University Bookstore for details.

## 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
7th through 10th class day of term
11th through 15 th class day of term
100\%

16th through 20th class day of term
After 20th class day of term
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 1 st
class session, whichever is later

| $100 \%$ | $100 \%$ |
| :--- | :--- |
| $100 \%$ | None |
| $50 \%$ | None |
| None | None |

6th through 10th class day of term
After 10th class day of term
None
None
Terms of Fewer Than 3 Weeks in Length:
Withdrawal Day
Up to and including 1 day after
1st class session
Withdrawing Credit drops
1st class session $\quad 100 \% \quad 100 \%$
1 day after 1st class session None None
$\begin{array}{lcl}\text { Enrollment for a Single 1-, 2-, or 3-Day Session or Less } & \\ \text { Prior to beginning of session } & 100 \% & 100 \% \\ \text { After session has begun } & \text { None } & \text { None }\end{array}$

## ESTIMATED TEXTBOOKS

Textbooks costs range between $\$ 350$ and $\$ 500$ 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; see "Wisconsin, North Dakota, and South Dakota Tuition Reciprocity," which follows, for exceptions. Students can get information about regulations and criteria that determine their residence status from the Office of Admissions (Maxwell Hall).

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

 NebraskaFor 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 $\$ 1,600$ per year for undergraduate students.

| UNDERGRADUATE STUDENTS: ESTIMATED TOTAL MINIMUM EXPENSES <br> All amounts shown are estimates and are subject to change at any time. <br> Actual rates are published on the WSU website at: www.winona.edu/billing/feeinformation.htm. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2010-2011 | 2010-2011 | 2011-2012 | 2011-2012 |
|  | Resident | Non-Resident | Resident | Non-Resident |
|  | Per Semester | Per Semester | Per Semester | Per Semester |
| Tuition (16 semester hours) | \$ 3,120.00 | \$ 5,655.00 | \$ 3,370.00 | \$ 6,110.00 |
| e-warrior Program | \$ 485.00 | \$ 485.00 | \$ 485.00 | \$ 485.00 |
| Fees | \$ 445.00 | \$ 445.00 | \$ 460.00 | \$ 460.00 |
| Residence Halls-Board \& Room | \$3,380.00 | \$ 3,380.00 | \$ 3,480.00 | \$ 3,480.00 |
| Estimated Total | \$ 7,430.00 | \$9,965.00 | \$ 7,795.00 | \$ 10,535.00 |

## FINANCIAL AID

Student Financial Aid Office
Maxwell Hall (507-457-5090)
www.winona.edu/financialaid/
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 9 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 financial 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. Paper FAFSA forms are available upon request from the U.S. Department of Education at the above website. 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

WSU students attending WSU-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 weekly to meet with students on the Rochester campus.

## 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 RECIIPIENTS

Note: This standard became effective fall semester 2009.

## 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. Refer to Section VIII D for a description of consortium agreement credits; refer to Section VIII A for a description of attempted and completed credits.
a) Undergraduate Students: An undergraduate 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
b) Graduate Students: A graduate 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+ graduate credit:
3.00 minimum SAP GPA

## II. QUANTITATIVE MEASURE

A. Required Completion Percentage

Students must complete at least $67 \%$ of the credits attempted. 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.
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.
- Previous Undergraduate Degree (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.


## II. EVALUATION PERIOD

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

## III. FAILURE TO MEET STANDARDS

A student who does not meet standards will be placed in probationary status. A student who is in probationary status and who does not meet standards will be placed in suspended status.

## V. NOTIFICATION

At the end of each semester, including summer term, a notice of probation is sent to students who were in good standing but no longer meet the standards. The notice is sent to the student's email address on record with the University. At the end of each semester, including summer term, a notice of suspension is sent to students who were on probation and do not meet the standards. The notice is sent to the student's email address on record with the University.
of aid. In order for an appeal to be approved, the student must demonstrate that extraordinary circumstances have directly affected his or her ability to maintain satisfactory progress. Examples might include illness, hospitalization, death of a relative, etc. A student who does not meet the cumulative standards but who has successfully completed all attempted courses with a minimum 2.00 GPA in the most recently completed semester may appeal on that basis for continuation of probationary status. In addition, a student may appeal after an absence if there is a valid reason for the appeal.

An appeal may be submitted by email to the Financial Aid Office in reply to the email notice of suspension. The appeal should consist of correspondence from the student explaining why the student's record has fallen below the standards and how the student intends to improve the record. At the student's discretion, the appeal may contain a third party letter or other documentation supporting the case.

If the appeal is approved, the student will return to probationary status for one semester and retain financial aid eligibility. If the appeal is not approved, the student will remain in a suspended status and will not be eligible for federal and state financial aid. The student retains the right to appeal in person to the Financial Aid Satisfactory Progress Review Committee and may contact the Warrior Hub to schedule a meeting with the Committee.

## VII. REINSTATEMENT

When the cumulative standards are met, the student automatically returns to a status of good standing.

## VIII. ADDITIONAL ELEMENTS

A. Treatment of Grades: WSU courses for which a student receives grades of A, B, C, D, F, W (withdrawal), P (pass), NC (no-credit), I (incomplete), IP (in-progress), and Z (no grade reported) are considered to be credits attempted for purposes of monitoring the Financial Aid Satisfactory Academic Progress standard. WSU courses for which a student receives grades of $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$, and P are counted as satisfactorily completed for the purposes of monitoring the Financial Aid Satisfactory Academic Progress standard.
B. Academic Pardon: Credits for which a student has been granted academic pardon are included in calculation of the cumulative GPA, completion percentage, and maximum time frame for purposes of monitoring the financial aid Satisfactory Academic Progress Standard.
C. Audited Courses: Audited courses do not count as credits attempted or credits earned and are not funded.
D. 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.
E. Remedial Credits: For monitoring the financial aid Satisfactory Academic Progress standard, classes in this category are considered attempted. Up to 30 remedial credits are excluded from the Maximum Time Frame calculation.
F. 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. For financial aid Satisfactory Academic Progress, there is not a limit on the number of times a single course may be repeated.
G. Transfer Credits: Transfer credits accepted by WSU are not counted as credits attempted for calculation of cumulative completion percentage; grades associated with these credits are not used in calculating cumulative GPA. Transfer credits accepted by WSU apply toward the maximum time frame calculation.
H. 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 30 days 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 who 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) assistance. Contact the Financial Aid Office for more information.

Bureau of Indian Affairs Grant: Grants are available to students with one-quarter 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 $\$ 3,500$ for first-year students, $\$ 4,500$ 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 halftime basis and during a six-month grace period. The interest rate is fixed at 6.8\%.

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, undergraduate students can borrow up to $\$ 7,500$ per grade level, and graduate students can borrow up to $\$ 9,000$ per grade level. 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 fixed at $8.5 \%$.

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 14 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, as in 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 at www.winona.edu/career.

Scholarship Administration Office - University Advancement
Somsen Hall, Room 209 (507-457-5198)
www.winona.edu/scholarships
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.

Early in the spring semester, many scholarship applications are posted on the WSU Foundation webpage. To access this information, go to www.winona.edu, click on "Current Students," and scroll down to find the "Scholarships" link. You may also find information and apply online at www.winona.edu/scholarships. The following sections describe general categories of scholarships that are available through the University.

## WSU ACADEMIC SCHOLARSHIPS

The Office of Admissions (Maxwell Hall) can provide students with information about first-year and transfer academic scholarships. Funds for these scholarships come from the University and the WSU 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 eight consecutive semesters for a total of $\$ 14,000$ if the student maintains a cumulative GPA of 3.50 , attends WSU continuously as a fulltime student, and completes 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 eight consecutive semesters for a total of $\$ 16,000$ if the student maintains a cumulative GPA of 3.50, attends WSU continuously as a full-time student, and completes 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.

Note: Students who are selected as recipients of the WSU Foundation Board Scholarship are not eligible for the President's Honor Scholarship awarded by the WSU Office of Admissions.

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 1260
$\$ 1,500$ Top $10 \%$ of graduating class and ACT 27 or SAT 1220
$\$ 1,000$ Top $15 \%$ of graduating class and ACT 26 or SAT 1190
$\$ 1,000$ Top $50 \%$ of graduating class and ACT 28 or SAT 1260
The scholarships are available for the first eight consecutive semesters if the student attends WSU continuously 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 SCHOLARSHIPS

Transfer Honor Scholarships: Students can apply for this scholarship if they are transferring to WSU with 30 or more completed credits at time of application and have a minimum GPA of 3.35 on a 4.00 scale. Application forms are available in the WSU Office of Admissions.

Phi Theta Kappa Scholarships: $\$ 1,000$ renewable Presidential transfer scholarship. The scholarship is awarded to transfer students who have completed study at a community college with a 3.5 GPA or higher, membership in Phi Theta Kappa, and an earned Associate of Arts degree. The student must be enrolled full-time to renew this scholarship.

## RESIDENT TUITION SCHOLARSHIPS

The Resident Tuition Scholarship (RTS) awards resident tuition rates to new, non-resident, non-reciprocity students. Based on the difference in the cost of resident and non-resident tuition, this scholarship is valued at approximately $\$ 4,700$ annually. The Resident Tuition Scholarship is renewable the first eight 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 above or an SAT score (combined Critical Reading and Mathematics) of 1600 . Students are encouraged to apply to WSU early. Transfer students with 24 or more hours of completed transferable coursework with a GPA of 3.25 or higher are eligible. Transfers with fewer than 24 transferable credits will be awarded on high school criteria.

## TALENT SCHOLARSHIPS (FINE ARTS AND ATHLETICS)

Students may apply for fine arts 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. 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 209 (507-457-5198).

## ALUMN SOCIETY SCHOLARSHIPS

WSU Alumni Affairs Office
Somsen Hall, Room 206 (507-457-5027)
The WSU Alumni Society awards multiple $\$ 1,000$ 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 or at www.alumni.winona.edu. Applications must be submitted by March 1.

## INCLUSION AND DIVERSITY SCHOLARSHIPS

Inclusion and Diversity Office
Kryzsko Commons, Room 121 (507-457-5595)
Email: inclusion_diversity@winona.edu
The WSU Inclusion and Diversity Office coordinates scholarships, incentive grants, internships, and summer opportunity employment programs for historically under-represented students.

Inclusion and 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 if the student maintains 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 Inclusion and Diversity Academic Scholarship are required to participate in the mentor program.

Inclusion and 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.

Note: Effective fall 2007, scholarship requirements were 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
Arthur and Liola (Zeller) Mattson Scholarship
Winona County Bicentennial Scholarship

## OTHER SOURCES OF SCHOLARSHIISS

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 

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

## HOUSING

The Office 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 the WSU-Rochester campus. See page 34 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 a student's education. The Housing and Residence Life staff members devote their time to providing resources, services, and programs to ensure a stimulating and supportive atmosphere for every student.

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 residentstouch on different areas such as inclusion, career development, intellectual and creative enrichment, social and recreational activities, 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 education. 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 leadership positions 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 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 positions 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 comprehensive application process, these upper-division students serve as peer advisors for residents, organize educational activities, and encourage participation in hall and campus activities.

## Residence Halls

Nine residence halls allow WSU to house approximately 2,300 students. 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 at www.winona.edu/housing.

While the specific housing options vary within each facility, 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 with 80 available channels. Students have the option to purchase premium channels from a local cable provider.
- A laser printer at the hall reception desk for students' use.
- Areas conducive to group study.
- TV lounges in each hall; each lounge has big screen TVs and lots of comfortable furniture.
- Kitchen facilities for preparing a snack or light meal; vending machines are available for those times when hunger strikes at odd hours.
- Laundry rooms equipped with Laundryview technology. This technology lets students know what machines are available and alerts them when their laundry is complete. To operate the machines, students may use coins or a Purple Pass.

Note: The "Purple Pass" can be used like an internal campus debit card to purchase goods and services throughout the campus. Visit the cashiers at the Warrior Hub (Maxwell Hall, Room 209) to deposit money into your Purple Pass account. A minimum deposit of $\$ 10.00$ is required.

- Sports equipment, kitchen supplies, and games that students can 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 with students to create a safe community.


## 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 four students; some are 2-bedroom/2-bath units that accommodate four students, and a few are 1-bedroom/1-bath units that accommodate two 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 packet will be sent to you following your letter of acceptance from WSU.
2. Promptly complete the housing application/agreement. It is recommended that you complete the application as early as possible, but not later than March 1 to guarantee a space in the residence halls. Note: Residence hall space is allocated by the date WSU receives your completed housing application/agreement.
3. Submit a $\$ 250.00$ pre-payment ( $\$ 50$ non-refundable application fee) on or before March 1 to confirm your space on campus.

Note: For first-year and transfer students, $\$ 200.00$ of the advance payment is refundable if the Housing Office receives the student's written refund request on or before May 1. The $\$ 50.00$ application fee is not refundable.

## Payment for Housing and Dining Services

Payment for residence hall and meal plan is made on a semester basis. See page 10 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 REFERRAL SERVICE

The Office of Housing and Residence Life (Kryzsko Commons, Room 130) provides an Off-Campus Referral Service, which consists of listings provided by the landlords of apartments and other rental options. Information is available at the office during business hours. The listing is available online at the Student Resource Center website at www.winona.edu/src.

WSU makes no representation as to the kind, quality, or quantity of facilities 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 housing facilities specifically for married students. 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. The Jack Kane Dining Center provides 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 Lourdes Dining Hall, located on the main floor of Lourdes Hall, provides additional convenience for the students living on the West Campus. (See page 34 for information about dining options for the Rochester campus.)

Students who are on a meal plan may use their student ID 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: 14,10 , or 7 meals per week. In addition, each meal plan includes cash credit (Kryzsko Kash) to make purchases in the "Smaug" or at convenience stores on the main and west campuses. 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. Meal plan changes can be made at the Office of Housing and Residence Life (Kryzsko Commons, Room 130).

The Food Committee, comprised of students and staff from Housing and Dining services, provides input and suggestions to enhance WSU's campus dining experience.

## EMPLOYMENT OPPORTUNTIIES

Campus dining also provides employment opportunities; it is one of the largest student employers on campus. Students who are interested in oncampus employment should contact the Campus Dining Office (Kryzsko Commons, Room 229).

# REGISTRATION AND ACADEMIC RECORDS 

Registrar's Office
Maxwell Hall, Warrior Hub (507-457-2800; 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 admissions requirements. All Winona campus undergraduate students must also contact their advisor each term to receive their registration access code. See pages 5 and 7 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.

## ADVIING

Each semester, WSU schedules an Advising Period (see the Academic Calendar at www.winona.edu/registrar). 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 for the fall and spring semesters. Summer term registration does not require an access code. Most students on the Rochester campus and those registering for extension classes do not need an access code.

Students may go to www.winona.edu/registration.asp for up-to-date reports that assist in their academic planning. From this web address, students can access the Minnesota State Colleges and Universities (MnSCU) Student Portal where they may view and print their current academic transcript. Students 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. Students use this information to work with their advisors to better plan their academic careers.

## 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. The schedule of registration "windows"
during which students may register is available on the MnSCU portal at www.winona.edu/registration.asp. 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.
Students need to keep a 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

Non-degree seeking students can enroll in Extension classes without being formally admitted to the University or 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 106 (507-457-5083) 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.

## CHANGES IN CLASS SCHEDULE

## Change the Grade 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, enrollment status, certification, or licensure requirements. To request a grade method change, students should go to the WSU website and follow the directions under Web Registration.

## Add a Class

For the first five instructional days of the semester, students may add a class using the Web Registration process. After the fifth instructional day of the semester (or after the first class meeting for weekly evening classes), students must obtain the permission of the instructor for each class to be added.
To register for a 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 Warrior Hub or have their instructor submit an override online.

## Arranged Classes

An "arranged class" is a course 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. Prior to applying for an arranged class, students must be formally admitted to a degree program with an established WSU GPA of 2.00 or higher. Students should request an application from the Warrior Hub 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 the class in the usual fashion.

## Independent Study or Internships

Prior to applying for an independent study course or an internship, students must be formally admitted to a degree program with an established WSU GPA of 2.00 or higher. Students should consult their academic department for information about any additional GPA requirements for internships. A special application form, available from the Warrior Hub, must be submitted to the appropriate academic dean according to announced deadlines (see the Academic Calendar at www.winona.edu/registrar). 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 (Warrior Hub in Maxwell Hall or WSU-Rochester, UCR, Room SS\#128). See page 24 for further information about independent study and internships.

## 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 (FR, SO, JR, SR, etc)
- Permanent Address and Telephone Number
- Enrollment Status (Full-Time or Part-Time)
- Local Address and Telephone Number
- WSU Email Address
- 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 Warrior Hub, 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.

## Name or Address Change

Official name changes are made at the Warrior Hub and require supporting documentation such as a marriage license, court order, or divorce decree. Students should use the MnSCU Student Portal to record address changes as soon as possible. In addition, students who are candidates for graduation should make the same name or address changes on the Application for Graduation.

## Final Grades

At the end of the semester, final grades are available to students on the WSU website. To view grades, students access the MnSCU Student Portal and click on "Check Grades" under the "Grades and Transcript" menu.

## Academic Transcripts and Copies of Student Records

Upon the student's signed written request, the Warrior Hub will issue an official transcript. Official transcripts are sent to other educational institutions, businesses, and other organizations. Release of official transcripts may be withheld if there is an outstanding debt to the University. In general, students and advisors use unofficial transcripts on campus. Unofficial transcripts can be obtained from the Warrior Hub with proper identification.

Transcripts may be requested in person at the Warrior Hub, through the United States Postal Service, or by fax. Official transcripts are processed within five to seven business days. When a transcript is given directly to a student, it is stamped "Issued to Student"; the student must show proper identification before he or she can receive a transcript.

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.
If the student has an unpaid financial obligation to the University or if there is an unresolved disciplinary action pending against the student, 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.


## 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 pages, 22 and 23, resepectively. Candidates for
graduation should review the requirements specified for their major/minor, and submit an Application for Graduation to the Warrior Hub at least two semesters before they expect to graduate.

Applications are processed in the order in which they are received at the Warrior Hub; students should allow approximately six weeks minimum for application processing and notification. Three weeks before graduation, a list of candidates is posted online and on the Warrior Hub bulletin board. Candidates should review the list to confirm that they have been approved for graduation. If a candidate's name does not appear on the list, he or she should contact the Warrior Hub.

Graduation for any particular semester becomes 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.

## Student Right to Know Act

## Institutional Research

Maxwell Hall, Room 152C (507-457-2833)
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.

## ACADEMIC POLICIES AND UNIVERSITY REQUIREMENTS

Sally Johnstone, Vice President for Academic Affairs
Somsen Hall, Room 211 (507-457-5010)
www.winona.edu/academics
The Office of the Vice President for 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 in the Warrior Hub (Maxwell Hall) or on the University's website (www.winona.edu).

## UNIVERSITY REQUIREMENTS

Students progress toward an associate (two-year) or a baccalaureate (four-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 can be applied toward the total number of credit hours required for graduation.

Note: 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.

Some courses may apply to both teacher licensure and a university requirement, or they 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.

## 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 in excess of 16 credits (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 " B " or better in courses applied toward the major.)

| Required for AA | Required for BA or BS |  |
| :--- | :--- | :--- |
|  |  | Developmental Courses <br> 46 Credits 46 Credits |
| University Studies, Including: <br> Basic Skills -12 credits <br> Arts and Sciences Core -22 credits <br> Unity and Diversity -12 credits |  |  |
|  | 12 Credits | Flag Requirements -12 credits |
| 14 Credits | 47 Credits Minimum | Major <br> Minor |
| 60 Credits | $120-128$ Credits | Electives |

## UNIVERSITY STUDIES PROGRAM

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 enhances their ability to live well and ethically in the contemporary world.

In addition to this overview of the University Studies subject areas and semester-hour requirements, page 19 lists the courses approved for University Studies credit when 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 will be considered to have satisfied the equivalent components of the University Studies Program.
- Transfer students who earned an Associate in Arts (AA) degree from a community or technical college in 1985 or later have automatically satisfied the Basic Skills, Arts and Sciences Core, and Unity and Diversity components of University Studies unless there are specific requirements in the student's major. Nevertheless, transfer students must complete the University Studies Program Flag requirements at WSU.
- Transfer students who earned an Associate of Science (AS) or Associate of Applied Science (AAS) degree from a community or technical college in 1985 or later must complete the WSU University Studies requirements. However, the unity and diversity components will be waived unless there are specific requirements in the student's major.
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 later in this section:

- Four Basic Skills: College Reading and Writing, Oral Communication, Mathematics, and Physical Development and Wellness
- Four Arts and Sciences Core Requirements: Humanities, Natural Science, Social Science, and Fine and Performing Arts
- 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 below unless there are specific requirements in the student's major.

Note: For students whose initial enrollment was 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.

## 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 flag requirements 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). However, departments and programs may require additional prerequisites for Flag courses.

## Overview of University Studies Components 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.

Oral Communication (CMST 191; 3 S.H.): Develop skill in expressing ideas effectively in individual and group formal presentations; establish the foundation for the communications required in later college courses. Students should take CMST 191 during their first two years of college.

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.

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 demonstrating how to live a healthy lifestyle.

## 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.

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.

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

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

## UNITY AND DIVERSITY (12 S.H.)

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

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.

## Global or Multicultural Perspectives (3 S.H.):

Global Perspectives: Improve students' understanding of the growing interrelatedness of nations, people, and the environment. -OR-
Multicultural Perspectives: Develop students' understanding of diversity within and among societies.

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. -ORDemocratic Institutions: Help students understand basic concepts of social justice, the common good, and the legitimate scope of government in a democratic and pluralistic society.

## 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.
B 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.
to 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.


## 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 SKIILS (12 S. H.) <br> 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)
112 Modeling with Functions for Business (3)
115 College Algebra (4)
120 Precalculus (4)
130 Matrix Algebra (3)
140 Applied Calculus (3)
150 Modeling Using Precalculus and Statistics (3)
155 Modeling Using Calculus (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 Sport Science (PESS)
Activities ( 1 S.H. each): $100,101,102,103,104$,
$112,120,122,123,134,135,137,139,140,141,142$
144 Contemporary Activities (1)
199 Lifetime Fitness/Wellness (2)
214 Standard First Aid and CPR (2)
Recreation, Tourism and Therapeutic Recreation (RTTR)
144 Contemporary Activities (1)
145 The Search for Self-Esteem (1)
239 Outdoor Pursuits (3)
246 Leisure Education in TR (3)

## ARTS \& SCIENCES CORE (22 S.H.)

## HUMANITIES (6 S.H.)

Note: For students whose initial enrollment was 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 $\operatorname{Art}$ (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 and 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)
112 Musical Culture Along the Mississippi River (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)
290 Introduction to War, Peace, and Terrorism (3)
301 Early Modern Philosophy (3)
302 Contemporary Philosophy (3)
341 Just-War Tradition (3)
Residential College (RESC) - MNTC Goal 6-
140 Topics in Humanities (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)
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)
107 Geology in the National Parks (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 Physical Science in Your Environment (4)
203 Investigative Science III: Scientific Investigation of Your Environment (4)

## SOCIAL SCIENCE (6 S.H.)

Communication Studies (CMST) -MNTC Goal 5-
282 Introduction to Communication Theory (3)
287 Conflict and Communication (3)
Economics (ECON) -MNTC Goal 5-
201 Principles of Microeconomics (3)
202 Principles of Macroeconomics (3)
Educational Foundations, Research and Technology (EFRT) -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)
177 Politics and Violence (3)
221 State and Local Government (3)
Psychology (PSY) -MNTC Goal 5-
210 Introduction to Psychological Science (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 (WAGS) -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)
117 Drawing for the Sciences (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 Introduction to 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)
Residential College (RESC) - MNTC Goal 6-
143 Experience and Expressions (3)
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)
295 Making Interdisciplinary Connections (3)
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 2375 Argumentation and Advocacy (3)
Computer Science (CS) -MNTC Goal 2-
130 Introduction to BASIC Programming (3)
150 Overview of Computer Science (3)
216 Web Technology II (3)
234 Algorithms and Problem Solving I (4)
Economics (ECON) -MNTC Goal 2-
302 Intermediate Microeconomics (3)
English (ENG) -MNTC Goal 2210 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 Probability for Elementary Teachers (4)
Music (MUS) -MNTC Goal 2-
203 Theory III (4)
Nursing (NURS) -MNTC Goal 2-
366 Pathophysiology (3)

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 2223 University Physics III (4)
Psychology (PSY) -MNTC Goal 2-
308 Experimental Psychology (3)
Recreation, Tourism and Therapeutic Recreation (RTTR) -MNTC
Goal 2-
244 Stewardship of Self and Environment: Building a Principled Way of Life (3)
Residential College (RESC) -MNTC Goal 2-
151 Concept and Context (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)
215 Introduction to Laban Movement Analysis (3)
Women's and Gender Studies (WAGS) -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)
330 Biomedical Ethics (3)
490 Issues in Biology (3)
Chemistry (CHEM) -MNTC Goal 10-
320 Environmental Chemistry (4)
Composite Materials Engineering (CME) -MNTC Goal 10-
A sequence of the following three courses:
102 Introduction to Engineering (2)
390 Composites Manufacturing (3)
480 Design Project II (3)
Computer Science (CS) -MNTC Goal 10-
110 Computers in a Global Society (3)
310 Social Implications of Computing (3)
Economics (ECON) -MNTC Goal 10-
315 Environmental and Natural Resource Economics (3)
450 Health Economics (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 10140 Energy (3)
Political Science (POLS) -MNTC Goal 10340 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

Child Advocacy Studies (CAST) -MNTC Goals 7 and 8-
302 Global Child Advocacy Issues (3)
Economics (ECON) -MNTC Goals 7 and 8-
220 Applied International Development (3)
404 International Economics (3)
415 International Economic Development (3)
430 Asian Economies in Transition (3)
Finance (FIN) -MNTC Goals 7 and 8-
440 International Finance (3)

Geoscience (GEOS) -MNTC Goals 7 and 8-
425 Global Climate Change (3)
450 Travel Study in Costa Rica (2)
Global Studies (GS) -MNTC Goals 7 and 8-
200 Introduction to Global Studies (3)
205 Cultural Encounters (3)
210 Introduction to North America (3)
232 Introduction to Latin America (3)
233 Latin American \& Caribbean Immigrants in the U.S. (3)

250 Introduction to Asia (3)
255 Peoples and Culture of South and Southeast Asia (3)
300 Contemporary China (3)
Health, Exercise \& Rehabilitative Sciences (HERS)
-MNTC Goals 7 and 8-
305 Health, Exercise and Medicine: An International Perspective (3)
History (HIST) -MNTC Goals 7 and 8-
123 East Asian Civilization (3)
165 Latin American History (3)
170 African Civilization (3)
Marketing (MKTG) -MNTC Goals 7 and 8450 Travel Study in Costa Rica (2)
Political Science (POLS) -MNTC Goals 7 and 8-
205 The United Nations in World Affairs (3)
Recreation, Tourism and Therapeutic Recreation (RTTR)
-MNTC Goals 7 and 8-
450 Travel Study in Costa Rica (2)
Social Work (SOCW) -MNTC Goals 7 and 8445 Globalization of Social Welfare (3)
Women's \& Gender Studies (WAGS) -MNTC Goals 7 and 8-
234 Gender and Latin American Society through 20th Century Literature (3)
235 Gender and Social Justice Issues in Latin America (3)

## MULTICULTURAL PERSPECTIVES

Biology (BIOL) -MNTC Goals 7 and 8365 The Cultures \& Ecology of East Africa - Tanzania (4)
Business Education (BUED) -MNTC Goals 7 and 8-
350 Quality of Work Life (3)
Chinese (CHIN)
201 Intermediate Chinese I (4)
202 Intermediate Chinese II (4)
Communication Studies (CMST) -MNTC Goals 7 and 8-
281 Intercultural Communication (3)
290 Disability Communication and Culture (3)
291 Topics in Multicultural Communication (3)
Economics (ECON) -MNTC Goals 7 and 8435 North American Economies (3)
Educational Foundations, Research and Technology (EFRT) -MNTC
Goals 7 and 8308 Human Relations and Student Diversity (3)
English (ENG) -MNTC Goals 7 and 8-
107 ESL: Academic Reading \& Writing II (3)
220 Multicultural American Literature (3)
221 Topics in World Literature (3)
Foreign Languages -MNTC Goals 7 and 8-
201 Intermediate French I (FREN) (4)
202 Intermediate French II (FREN) (4)
201 Intermediate German I (GERM) (4)
202 Intermediate German II (GERM) (4)
201 Intermediate Spanish I (SPAN) (4)
202 Intermediate Spanish II (SPAN) (4)
218 The New Europeans: Understanding the E.U. (FLAN) (3)
Geography (GEOG) -MNTC Goals 7 and 8-
223 Geography of the Orient (3)
225 Geography of Latin America (3)
Global Studies (GS) -MNTC Goals 7 and 8215 Introduction to Japanese Culture (3-4)
Health, Exercise and Rehabilitative Sciences (HERS)
-MNTC Goals 7 and 8327 Foods (3)
History (HIST) -MNTC Goals 7 and 8-
220 Introduction to African-American History (3)
235 History of the American Indian (3)

Japanese (JPN) -MNTC Goals 7 and 8-
201 Intermediate Japanese I (3)
202 Intermediate Japanese II (3)
Music (MUS) -MNTC Goals 7 and 8-
114 World Music (3)
115 Music of East and Southeast Asia (3)
116 Music of the Americas (3)
Nursing (NURS) -MNTC Goals 7 and 8-
325 Transcultural Issues in Health Care (3)
Political Science (POLS) -MNTC Goals 7 and 8-
225 Ethnic Conflict and Nationalism (3)
226 Politics and Society in Africa (3)
270 Politics and Society in the Middle East (3)
335 Politics in Latin American (3)
390 Comparative Politics - Third World (3)
Recreation, Tourism and Therapeutic Recreation (RTTR)
-MNTC Goals 7 and 8-
265 Leisure in Different Cultures (3)
Theatre and Dance (THAD) -MNTC Goals 7 and 8312 Japanese Classical Theatre
Women's and Gender Studies (WAGS) -MNTC Goals 7 and 8-
220 Power, Privilege, and Gender (3)
CONTEMPORARY CIIIZENSHIP OR DEMOCRATIC INSTITUTIONS (3 S.H.)

## CONTEMPORARY CITIZENSHIP

Accounting (ACCT) -MNTC Goal 9-
211 Financial Accounting Principles (3)
Business Administration (BUSA) -MNTC Goal 9106 Introduction to Business (3)
Business Education (BUED) -MNTC Goal 9-
215 Personal Finance (3)
360 Interpersonal Business Relations (3)
Chemistry (CHEM) -MNTC Goal 9436 Topics in Environmental Chemistry (3)
Computer Science (CS) -MNTC Goal 9-
115 Computer Systems and Internet Technology (3)
116 Web Technology I (3)
344 Introduction to Web Programming (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)
299 Latino and Latin American Perspectives (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
101 Experiential Entrepreneurship
Music (MUS) -MNTC Goal 9-
298 Foundations and Principles of Music Education (3)
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)
Political Science (POLS) -MNTC Goal 9218 Community Service (3) 228 Public Service (3)
Recreation, Tourism and Therapeutic Recreation (RTTR)
-MNTC Goal 9-
290 Foundations of Tourism (3)
421 Outdoor Education and Interpretive Services (3)
Residential College (RESC) -MNTC Goal 9-
150 Insights and Implications

## 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 flag requirements 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 www.winona.edu/registrar.

## MAJORMINOR REQUIREMENTS

In addition to University Studies requirements, all students in baccalaureate 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 Warrior Hub 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 Warrior Hub. 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 currently in effect.

## GRADUATION REQUIREMENTS

## Associate in Arts Degree - AA (Two-Year)

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

1. Complete a minimum of 60 credit hours.
2. Complete at least 16 of the 60 credit hours at WSU.
3. Complete the University Studies requirements except for the Flag Requirements.
4. Earn a minimum WSU cumulative GPA of 2.00. Transfer students must also earn a minimum combined WSU and transfer cumulative GPA of 2.00 .
5. Be enrolled at WSU during the semester of graduation.
6. Submit a completed Graduation Application to the Warrior Hub at least two semesters before the expected graduation date. See page 17 for the detailed application, approval, and notification procedures.

## Baccalaureate Degree (Four-Year)

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

1. Complete a minimum of 120 credit hours. (Note: When this catalog went to print, teacher education programs, Clinical Laboratory Science, and Composite Materials Engineering required graduates to complete a minimum of 128 credit hours).
2. Complete at least 30 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 at least 40 credit hours of 300- to 400-level coursework.
4. Complete the University Studies Program requirements.
5. Earn a minimum WSU cumulative GPA of 2.00. Transfer students must also earn a minimum combined WSU and transfer cumulative GPA of 2.00 .
6. Be enrolled at WSU during the semester of graduation.
7. Bachelor of Science-Teaching (BT) candidates must complete the Professional Education Sequence, including student teaching. See page 215, "Admission to the WSU Teacher Education Program."
Note: When this catalog went to print, all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact your program advisor and refer to the Teacher Education Addendum (www.winona.edu/education/advising) for the latest information about program requirements whether you are (1) applying to a teacher education program, (2) currently enrolled in a teacher education program, or (3) expecting to graduate with a teacher education degree in 2010 or 2011.
8. 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 or option 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, or option 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 18). Credit earned in a course counts only once toward the minimum credit hours required for graduation.
c. If the major has more than one option, the minor requirement may not be fulfilled with a second option 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 grade of "C" or better in each course within their major/minor or to earn a grade of "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 18.)
9. Submit an Application for Graduation to the Warrior Hub at least two semesters prior to the expected graduation date. No degree is awarded until all grades are finalized; "I" or "IP" grades cannot remain on the permanent record. See page 17 for more details about how to apply for graduation.

Note: The student is solely responsible for making sure all academic requirements are met to complete the degree.

## Dual Majors

Students completing two or more majors will be awarded a single degree based upon the primary major. A student's default primary major is the major with the greatest number of credits. Any additional majors will be listed on the student's transcript under the degree to be awarded. If any of the majors fall under different degrees (for example, one major leads to a Bachelor of Arts and another leads to a Bachelor of Science), the student may choose either degree. (Students seeking additional or dual degrees should see the information below.) Students completing dual majors may use the second major as a minor if they are only receiving one degree.

## Additional Majors/Minors

WSU graduates may return for an additional major/minor by completing all of the requirements for that major and/or minor. If a student completes another major/minor, the additional major/minor is recorded on the permanent record. (See "Dual Degrees" below.)

## Dual Degrees

Students wishing to complete two degrees concurrently, (for example, Bachelor of Arts and Bachelor of Science) must complete a minimum of an additional 30 semester hours above the required 120-128 credit hours. Students must complete all major requirements under both degrees, including separate minors if required.

## Additional Degree

Students returning after graduating from WSU to earn an additional (different) bachelor degree at WSU must complete a minimum of 30 additional credits for the second degree. Students must complete all major requirements under the degree, including a minor if required. 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 or Bachelor of Science 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 Teacher Education Programs section on page 214.

Note: When this catalog went to print, all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact your program advisor and refer to the Teacher Education Addendum (www.winona.edu/education/advising) for the latest information about program requirements whether you are (1) applying to a teacher education program, (2) currently enrolled in a teacher education program, or (3) expecting to graduate with a teacher education degree in 2010 or 2011.

## 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 catalog 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 28.)
2. Exercising alternatives such as credit by examination, independent study, internships, which are described later in this section.

## 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 nonaccredited 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 Warrior Hub (Maxwell Hall) and obtain the necessary approvals from the academic dean and department offering the course to be credited. Credit by Examinations will be posted to the student's record at the end of the term. These credits are not used in determining full-time status.

## Credit for Life-Work Experience

Students may obtain credit for prior learning acquired outside the traditional institutional setting and may request evaluation of prior learning by submitting a portfolio. If a student can demonstrate to the WSU faculty evaluators that what he/she has learned is substantially equivalent in level and depth of knowledge to what the student would acquire in the classroom, the faculty member may recommend the awarding of equivalency credits. All equivalency credits are awarded on a pass/no credit basis. For more information or to begin the application process, students should contact an

Adult Entry Advisor in the Outreach and Continuing Education Department (Somsen Hall, Room 106, 457-5080).

## 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. To request a course substitution, students should request a Course Substitution form from the Warrior Hub (Maxwell Hall) and obtain approvals from the academic department offering the course. Course substitutions are not reflected on the academic transcript.

## 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-thejob 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 or 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, with this exception: Three 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 POLLILES

## 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 three or four 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 of the college of their major prior to registration.

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 (eight semesters), students must earn an average of 16 semester credit hours each semester.

## 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 27).

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 and administrative indicators:
A - Excellent
F - Failing
W - Withdrawal
B - Very Good
C - Average
NC - No Credit
AU - Audit
D - Below Average
I- Incomplete
IP - In-Progress
Z - Unreported

## Grade Point Average (GPA)

Each semester hour of credit attempted receives honor points according to the following:

$$
\text { Each "A" credit = } 4 \text { GPA points }
$$

Each "B" credit = 3 GPA points
Each "C" credit $=2$ GPA points
Each "D" credit = 1 GPA point
Each " F " credit $=0$ GPA points
The GPA is computed by dividing the total number of GPA points by the total number of GPA 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 18). Although courses taken on a pass/no credit (P/NC) basis grant credit toward graduation, $\mathrm{P} / \mathrm{NC}$ courses do not affect the GPA.

Note: 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 grade 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 Warrior Hub. The Registrar must receive a grade to replace the "I" by midterm 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.

## In-Progress Grades

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.
Students who repeat a course at WSU previously taken at another institution should submit a Repeat Notice form to the Warrior Hub. 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 $\mathrm{A}, \mathrm{B}, \mathrm{C}$ 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," page 24).

Departments designate which courses are required or permitted to be taken on a P/NC basis. Major, minor, or professional courses generally are not included; however, a department chairperson, in consultation with the instructor and the dean, 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 $\mathrm{P} / \mathrm{NC}$ basis.

Students cannot take more than six P/NC credits per semester except for student teaching and internships. The six credits include both optional $\mathrm{P} / \mathrm{NC}$ classes and classes in which $\mathrm{P} / \mathrm{NC}$ 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, transfer P/NC courses, student teaching, and/or internships all are counted in the 32 -credit limitation. For optional $\mathrm{P} / \mathrm{NC}$ 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 16 for more information about declaring/changing the grade 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
http://www.winona.edu/registrar/finalexam.asp 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).
sometimes feel that their academic work has been evaluated unfairly. The process for student appeals of grades is as follows:

1. Any student who wants to appeal a grade must 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 Warrior Hub and at the WSU-Rochester Student Services desk. The written appeal must be sent to the Grade Appeals Committee chairperson within 30 academic calendar days of the next term (excluding summer terms); a copy of the appeal must be sent 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 bu the student and the facutly member. Both parties are entitled to assistance and advice from members of the academic community in presenting their case to the subcomittee. 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.

## Academic Standing

Definition of Good Academic Standing: To maintain good academic standing, a student must have a minimum WSU cumulative GPA of 1.75 for the first 15 degree credits attempted and 2.00 thereafter. The cumulative GPA used to determine satisfactory progress is based solely on courses attempted and grades earned at WSU. In addition, a student must complete at least $67 \%$ of credits attempted at WSU to maintain good academic standing.

## Academic Probation 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 Probation 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 or credit completion rate is below the minimum required for good academic standing, the Vice President for Academic Affairs will suspend the student.

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.

## GRADE APPEAL POLICY

The evaluation of student performance in courses and the reporting of appropriate grades are faculty responsibilities. However, students

## 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 Advising Services (Maxwell Hall, Third Floor, 457-5878).

## 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 universitylevel opportunities to earn recognition for 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 Honour Society, the National Society of Collegiate Scholars (NSCS), 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

History Phi Alpha Theta
Mathematics
Pi Mu Epsilon
Nursing Sigma Theta Tau
Political Science Pi Sigma Alpha
Psychology
Psi Chi
Statistics
Mu Sigma Rho

## Department Honors Programs

Some departments have honors programs with specific requirements for admission and an honors thesis project. For information, see the department's program description in this catalog or the department's website.

## Dean's List

Undergraduate students are included on the Dean's List if they complete 12 semester hours or more for letter grades at WSU (not including pass/no credit) during any one semester and achieve a GPA of 3.50 or higher.

## Graduation with Honors

Honors are awarded to WSU graduates whose academic record as reflected by their grade point average (GPA) illustrates significant academic achievement. To qualify for "Graduation with Honors," a student must meet the following requirements:

- Students receiving a baccalaureate degree must complete 30 credits in residence during their junior and senior years (i.e., a minimum of 30 credits of WSU courses).
- Students receiving an AA degree must complete 16 credits in residence.
- Achieve a minimum GPA of 3.60 for all WSU coursework.
- Achieve an overall GPA of 3.60 , including any college-level transfer work.

Students who do not meet all of the above requirements are not eligible
for Honors. (Note: All GPAs are truncated and not rounded; for example, 3.2499 is truncated to 3.24.)

## Examples

- Student has a 3.59 WSU GPA and a 4.00 Transfer GPA: WSU GPA is too low to qualify for honors.
- Student has a 3.60 WSU GPA and a 3.59 Transfer GPA: Combined GPA is too low to qualify for honors.
- Student has a 4.00 WSU GPA and a 3.00 Transfer GPA: Student may qualify if overall GPA is above 3.60 .
- Student has a 3.60 WSU GPA and a 3.60 Transfer GPA: Student qualifies for honors.


## Honors Standards

Cum Laude: Overall GPA between 3.600 and 3.749
Magna Cum Laude: Overall GPA between 3.750 and 3.899
Summa Cum Laude: Overall GPA between 3.900 and 4.000

## Provisional (Commencement) Honors

Honors recognition for the commencement ceremony is based on the provisional determination of honors. This determination is made based on coursework completed prior to the term for which the student has applied to graduate. Provisional honors include any faculty grade changes for prior coursework on record at the midterm deadline of the graduation term (see academic calendar). Provisional honors also include administrative conversions (i.e., grades of "I" and "IP" to "F") from prior terms on record following the midterm conversion deadline. Any faculty grade changes from prior terms recorded after the midterm deadline are not used to determine provisional honors.

Students who have not filed a Graduation Application prior to the published midterm date of their graduation term are not eligible for provisional honors. However, all graduating students will be reviewed for final honors.

## Final Honors

Final honors are determined for all graduates after commencement and include all undergraduate coursework based on the standards and requirements above. A student's honors status may change after the determination of final honors. Final honors are posted on the student's transcript.

## 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 GPA, 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. Courses 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

Registration in a course obligates each student to pay tuition and other fees unless the course is dropped before the drop-without-tuition-obligation deadline. The refund deadline is the fifth class day of full-term courses. The deadline for short courses (three days or less) is the first class meeting. For short courses greater than three days, students have one day to drop with a refund.

Courses dropped before the deadline are not recorded on the student's transcript. Courses dropped between the drop deadline and the final withdrawal deadline are designated with an administrative indicator of "W" ("withdrew"). Credits in courses with the "W" symbol are not included in the computation of GPAs.

Note: MnSCU requires WSU to charge tuition and fees based on course registration, not on attendance. Tuition and fee charges are based on all courses in which the student is enrolled after the drop deadline even if the student has never attended those classes.

In order to increase the number 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 confirms that the Internet transaction was completed. Also, your computer screen should display a message indicating that the transaction was successfully completed. If the message is not displayed, the transaction was not successful.
- If you use staff assistance, ask the staff person for a copy of your schedule.


## WITHDRAWAL

## Deciding Whether to Withdraw

If you are thinking about withdrawing during 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 review your academic and career objectives and listen to your concerns. Your advisor can help you plan for completing your college education later.
- Make an appointment to see one of the staff members in Advising Services (Maxwell Hall).
- If you are having academic difficulty in one or more of your classes, check out Tutoring Services (Darrell W. Krueger Library, Room 220) or Student Support Services (Darrell W. Krueger Library, Room 219). 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 (Maxwell Hall).
- If you are experiencing personal problems, help is available in the Counseling Center (Wellness Center).
- If you are experiencing illness, contact Student Health Services (Wellness Center).
- If you are having trouble paying tuition and fees, you may be able to work out a payment plan with the Office of Student Accounts (Maxwell Hall).
- If you are living on campus and are having problems with your roommate or accommodations, contact your Resident Assistant, Residence Hall Director, or the Housing and Residence Life office to find out what changes can be made (Kryzsko Commons, Room 130; 507-457-5305).

If you receive financial aid through the University and then withdraw during the term, you may be expected to return part of the financial aid, 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 during 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.
$\checkmark$ Be sure to drop your classes, either on the WSU website or with the assistance of staff members as follows:

## Winona classes:

Warrior Hub (Maxwell Hall, Second Floor; 507-457-5030)
Rochester classes:
UCR Service Desk (507-285-7100)

## Extension classes:

Outreach and Continuing Education (Somsen Hall, Room 109; 507-457-5080)
$\checkmark$ 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.
$\checkmark$ 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.
$\checkmark$ Check with the Office of Student Accounts (Maxwell Hall) 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.
$\checkmark$ If you are leaving during the semester and have received financial aid through the University, contact the Office of Student Accounts (Maxwell Hall) to learn whether you will be expected to return any of the aid you have received.
$\checkmark$ If you are living in a campus residence, formally check out of your room with your Resident 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-tuitionobligation" 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 allinclusive, of types of behavior that are unacceptable and will be viewed as violations of the academic integrity policy.

- 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 Submissions: 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 member 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 that could have substantially affected the outcome of the meeting.
4. The sanction was excessively severe.

Under some circumstances, a sanction(s) more severe than academic sanction may be appropriate. 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 or not the case will be heard as a behavior discipline. If so, the case will be referred to the Office of Student Life and Development 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 is available in the Office of Student Life and Development (Kryzsko Commons, Room 129) or at www.winona.edu/sld.

# ACADEMIC RESOURCES 

## ACADEMIC ADVIIING

Advising Services
Maxwell Hall, Third Floor (507-457-5878)
www.winona.edu/advising
WSU's academic advising system is designed to help students make wellinformed 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 Advising Services for assistance.

## NEW STUDENT ORIENTATION

Advising Services
Maxwell Hall, Third Floor (507-457-5878)
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 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.

## TUTORING SERVICES

Darrell W. Krueger Library, Room 220 (507-457-2486)

## www.winona.edu/tutoring

Tutoring Services offers free tutoring and Supplemental Instruction (SI). Peer tutors participate in an extensive training program that is certified by the College Reading and Learning Association. 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. By accessing the web address above, students can view information about Tutoring Services, including the complete tutoring and SI schedule.

## STUDENT SUPPORT SERVICES

Darrell W. Krueger Library, Room 219 (507-457-5465)
www.winona.edu/studentsupportservices
Student Support Services is a federally funded program dedicated to providing individualized academic and personal support to facilitate lifelong learning and development. Student Support Services is designed to help students achieve their goal of graduating from college. The program provides a community of support for students who are first-generation college students, who have low income, or who have disabilities. Services include tutoring, academic advising, counseling, student leadership opportunities, and help in choosing a major.

## OTHER ACADEMIC RESOURCES <br> Cooperative Program: WSU-St Mary's University of Minnesota <br> Warrior Hub

Maxwell Hall (507-457-2800)
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 nine credits at WSU during 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 Warrior Hub.

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 Cooperative Program Director. Then the student must present the permit to the SMU Registrar's Office for processing and return the approved permit to the WSU Warrior Hub.

## Minnesota State University Common Market Program

Warrior Hub
Maxwell Hall (507-457-2800)
Under the Student Exchange Program, a WSU student may attend another Minnesota state university for one semester per institution 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 . Application forms are available at the Warrior Hub.

## Outreach and Continuing Education Department (OCED)

Somsen Hall, Room 106 (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 lives and coordinates programs that strengthen the University's links with its service region. Programs include the following:

- Adult Entry
- Business and Industry Outreach
- Camp and Conference Services
- Continuing Education
- Extension Program
- Professional Cooperative Education
- Senior Citizen Program
- Travel Study

OCED also actively seeks and creates opportunities for WSU to be a significant contributor to the business and economic development of our service region.

## Adult Entry Program

The Adult Entry Program serves the educational needs of adult students. The program is for adults who want to pursue an Associate in Arts or a baccalaureate degree. This unique and innovative program features flexible admission requirements. It also provides the opportunity for an assessment and review of prior learning acquired through informal education or life/ work experience. (A processing fee applies.) WSU validates credits earned; the credits may apply toward a student's degree program. For more information, contact the OCED office.

## Business and Industry Outreach

WSU works closely with the business community including schools, industries, and nonprofit agencies to provide continuing education for their employees. Specialized programs and individual courses are designed to meet the needs of the company and can be delivered on-site at the business or on campus. Courses may be offered for credit or non-credit. For more information regarding business solutions, contact the OCED office.

## Camp and Conference Services

The Camp and Conference Services program, located in the Tau Center on the WSU West Campus, offers a variety of services for WSU and the community. The Tau Conference Center offers a professional, comfortable, and distraction-free setting for meetings, retreats, or special events. Staff can assist with marketing, registration services, and on-site coordination of an event. Camp and Conference Services staff also works with summer camps (both internal and external) on their summer housing needs. Revenue generated from these services directly benefit WSU students through scholarships. For more information, contact Camp and Conference Services at 507-474-3900.

## 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 ( $1 \mathrm{CEU}=10$ contact class hours) and is used for recordkeeping but does not fulfill the requirements for an academic degree. 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.

## 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. 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 formally admitted to the University. However, graduate students must complete a WSU application
form. Extension courses can apply toward appropriate degree programs. For more information, contact the OCED office.

## Professional Cooperative Education Program

The Professional Cooperative Education Program is a partnership between WSU and area businesses to help students earn money for college while gaining real-world experience at an established business. The experience is customized for each participant; therefore, the work experience each student receives will enhance his/her educational goals. For more information, contact the OCED office.

## Senior Citizen Program

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 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. For registration details, contact the OCED office.

## Travel Study Program

Winona State University travel study programs are designed to encourage students to engage in critical thinking, experience first-hand the value systems and diverse lifestyles of other cultures, and participate in meaningful service-learning projects. These programs, which are often interdisciplinary, enhance students' global and cultural awareness through focused engagement and reflection.
Each travel study program is a WSU course taught by WSU faculty. By utilizing the unique characteristics of a location to enhance learning opportunities for students, travel study programs can help students achieve a well-rounded education. Most programs satisfy a university studies requirement and/or count towards a particular major.

Students and faculty interested in participating in or organizing a travel study course should contact the 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.

## STUDY ABROAD PROGRAM

Minné Hall, Room 120 (507-457-5500)
www.winona.edu/studyabroad
A variety of study abroad program 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 a study abroad agreement with Hebei University of Technology in Tianjin, China. Students with good academic standing can take Chinese language courses. They can also take a range of courses offered in English in the social sciences and business areas of study.
Students have the option of attending for a semester, summer session, or a full academic year.
- Japan: WSU has a study abroad agreement with Akita International University in northern Japan. Students with good academic standing can take Japanese language courses. 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.
- South Korea: WSU has an exchange agreement with Soonchunhyang University in Asan, South Korea and a study abroad agreement with Chung Ang University in Seoul. Students with good academic standing can take Korean language courses. 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 available. Students have the option of attending for a semester or a full academic year.
- Spain: WSU has a study abroad 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 full academic year.

Early and careful planning for studying 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 Program, students may contact the Student Resource Center in Kryzsko Commons (457-2456). For detailed information and application, go to the Study Abroad website (www.winona.edu/studyabroad).

## STUDENT LIFE

Connie Gores, Vice President for Student Life and Development Kryzsko Commons, Room 129 (507-457-5300)
www.winona.edu/sld
The Division of Student Life and Development advances student learning and supports and enhances the educational mission of Winona State University. With an emphasis on holistic student development, faculty and staff within Student Life and Development (SLD) strive to assist students in achieving their potential and in becoming self-directed in all activities.

Student Life and Development promotes and contributes to a University community centered on student learning and success. SLD is responsible for planning and administering an array of programs, services, and activities designed to accomplish the following:

- Encourage the optimal growth and personal development of students
- Contribute to student success and well-being
- Foster a sense of community
- Support an environment which is personal in nature, intellectually and culturally diverse, and which encourages the integration of in and out-ofclassroom student experiences

SLD creates supportive environments and innovative opportunities for student learning. We promote individual student excellence; we invite collaboration and discovery; and we challenge students to take responsibility as members of a diverse, global community.

## Dean of Students

## Karen Johnson, Dean

Kryzsko Commons, Room 131 (507-457-5300)
The Dean of Students serves as a strong student advocate and provides leadership to the University community in maintaining a safe, inclusive, and affirming environment. The Dean manages and oversees the University's conduct processes and provides leadership to the University in promoting and maintaining student rights and responsibilities.

## SERVICES

This section briefly describes key points of service available to address a broad range of student needs and interests. We encourage you to learn about the following services, which are designed to help students succeed at WSU.

## Career Services

## Counseling Center

Disability Services
Inclusion and Diversity
International Services
Parking Services
"Purple Pass" Service
Security Services
Student Health Service
Student Union
Student Resource Center
Teaching \& Learning Technology
Warrior Hub
WSU Children's Center

## Career Services

Maxwell Hall, Room 314 (507-457-5878)
www.winona.edu/career
Email: career@winona.edu
Career Services assists students seeking career direction, major selection, part-time employment on and off campus, work-study positions, summer opportunities, internships, and full-time employment. Individual advising appointments may be scheduled. Students are encouraged to register early to take full advantage of the broad range of services offered through Career

Services. Alumni are also eligible to register for assistance in their search for full-time employment or career direction.

Career Services provides opportunities for students to interact with employers through career fairs, job fairs, and on-campus interviews. Employers have access to students' resumes when students upload and publish them directly through the Career Services 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 DISCOVER career guidance and information system and the StrengthsQuest assessment are available through Career Services.

Career Services 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.

## Counseling Center

Wellness Center (507-457-5330)
www.winona.edu/counselingcenter/
Email: counseling_center_office@winona.edu
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 Counseling Center are anxiety, depression, adjustment issues, family problems, relationship concerns, academic concerns, self-esteem, grief, alcohol use/abuse, etc. Counselors 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.
Four licensed, full-time counselors, one licensed social worker, a full-time office manager, and graduate student trainees staff the Counseling 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.

## Disability Services

Maxwell Hall, Third Floor (507-457-5878; fax: 507-457-2957)
www.winona.edu/disabilityservices

## Email: ds@winona.edu

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 Disability Services. 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, recorded lectures, assistive technology, writing/scribing assistance, lab assistance, adaptive equipment, priority registration, or alternative format 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 students with disabilities 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 standards.
- 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 \& Dyslexic, State Services for the Blind, 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 Disability Services or online at http://www.winona.edu/disabilityservices/2206.htm.


## Inclusion and Diversity

Kryzsko Commons, Room 121 (507-457-5595)
www.winona.edu/inclusiondiversity/
Email: cdstudent@winona.edu
It is the goal of Winona State University to create a learning community where its members feel safe and respected regardless of cultural background and where opportunities are provided to explore, understand, and appreciate one another's cultural experiences and heritage. WSU strives 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.
- 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).
- Increase recruitment and retention of culturally diverse faculty and staff.
- Enhance curriculum development through the inclusion of multicultural perspectives.
- Provide resources for multicultural campus and community initiatives.
- 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.
- 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.


## International Services and Cultural Outreach

Kryzsko Commons, Room 128 (507-457-5303; fax 507-457-2474)
www.winona.edu/internationaloffice
Email: intrec@winona.edu
The Office of International Services and Cultural Outreach welcomes international students and provides assistance to all international students attending Winona State University. Information and advice is available regarding admission to the University, scholarships, immigration concerns and employment regulations regarding F-1 visa holders, friendship family program, orientation, insurance requirements, and other information related to the well-being of international students.
A limited number of English language courses are available for nonnative speakers who are admitted to the University. Students are assigned
to these courses on the basis of their scores on the WSU English Test for Non-Native Speakers. This test must be taken during orientation and prior to registration for the initial term of attendance at WSU.

See page 6 for admissions requirements and considerations. Students who initiate their attendance in the fall semester will be billed at the beginning of fall semester for the entire year. This payment will offer coverage for 12 months.

The University requires that international students meet with a staff member of the Office of International Services immediately after arrival to the University. At that time, students will receive detailed information on the required orientation (OASIS) held the week prior to the beginning of classes.

## Parking Services

Maxwell Hall, (507-457-5062)
www.winona.edu/parking
Email: parking@winona.edu
Parking permits are required in all University parking lots on the Winona campuses; WSU permits are also required for students who have stateissued handicapped permits. The application process for parking permits starts mid-April each year to be effective the next school year. Once permits are sold out, applicants' names are put on a waiting list. For more details and information, please contact Parking Services.

## "Purple Pass" - Warrior ID

Warrior Hub
Maxwell Hall, Room 222
The Warrior ID Card, also known as the "Purple Pass," is not only students' WSU identification, but it can also be used as a Smart Card to purchase products and services on campus. Once money is deposited on the card, students can use the Purple Pass to eat; drink; snack; make copies; do laundry; purchase books, supplies, and merchandise; and request Library Services. WSU's system can track students' funds for meal plans, Kryzsko Kash, Purple Pass, and Dining Dollars. WSU also offers a free account management tool called Manage My ID and provides Security Door Access to certain WSU building facilities on campus. Students contact the cashiers at the Warrior Hub (Maxwell Hall, Room 209) to deposit money into their Purple Pass account. A minimum deposit of $\$ 10.00$ is required.

## Security Services

Don Walski, Director of Security
Email: dwalski@winona.edu or security@winona.edu
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 65 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 33 for information about crime awareness and the Campus Security Report.

## Student Health Service

Wellness Center (507-457-5160)
www.winona.edu/healthservices
Email: health services office@ ${ }_{\text {winona.edu }}$
The Health Service facility is staffed by physicians, nurse practitioners, registered and practical nurses, a medical technologist, a health educator, nutritionist, 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
- 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. There is no office visit fee to see the physician or nurse practitioner. However, 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 Winona Health Urgent Care (420 E. Sarnia Street) or at the Community Memorial Hospital ( 855 Mankato Avenue).

## Health Insurance

All full-time students may purchase health insurance through the MnSCU United HealthCare Student Resource Insurance. For detailed information, contact one of the following offices: International Services (Kryzsko Commons, Room 128) or Student Health Service (Wellness Center). Information is also available at www.uhcsr.com/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 Department of Athletics.
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 available on the Student Health Service website
(www.winona.edu/healthservices/immunizations.html) or at the Student Health Service office.

## Student Resource Center (SRC)

Kryzsko Commons, Lower Level (507-457-2456)
www.winona.edu/src
Email: src@winona.edu
The Student Resource Center (SRC) is a one-stop resource for students, prospective students, families, and community members seeking information about WSU and the Winona area. The SRC is also the satellite site for the Warrior Hub, supporting students with information on admissions, financial aid, registration, advising, career and employment, housing, parking, library services, and more. "ASK WSU" is coordinated by the SRC staff.

If students have questions prior to, during, or after their time at WSU, the SRC is here for them. Frequently asked questions can be accessed through the "ASK WSU" icon on the website. Routine inquiries can be handled by the SRC, making it a convenient WSU resource. The SRC's hours of operation and offered services are expanded on a regular basis; check the website for current hours.

## Student Union

Kryzsko Commons (507-457-5312)
www.winona.edu/studentunion
Email: studentunion@winona.edu
The hub of student activities is Kryzsko Commons. This facility encompasses places to eat, study, meet, or just hang out. The Jack Kane Dining Center is located on the upper level and offers students an all-you-care-to eat dining option. Conference rooms and private dining areas are available to students for meetings and informal gatherings, and Baldwin Lounge provides students a quiet study space. The Student Activity Center
is located on the lower level and includes a lounge area, a conference room, a club/Greek office, the Student Senate offices, a stage, and a dance floor. Additional private club space is available for students as well. The Smaug food court, located on the lower level, offers students a variety of options including grab-n-go foods; Asian, Italian, and Mexican cuisines; sandwiches; and a grille. Kafé Kryzsko (located adjacent to The Smaug) is a convenience store where students can get made-to-order smoothies, coffee, soft drinks, a variety of pre-packaged foods, and many other items. The WSU Bookstore stocks WSU apparel and gift items, class books, and school supplies.

## Student Activities and Leadership

Kryzsko Commons (507-457-5308)
www.winona.edu/studentactivities
Getting involved in co-curricular and extra-curricular activities outside the classroom is extremely important to students' success at Winona State University. Involvement in a variety of activities helps students meet new people, get further involved in their field of study, develop new interests and life skills, and create a full college experience. WSU students can get involved in more than 300 clubs and organizations that encompass a wide variety of interests including:

- Academic Clubs
- Athletic Clubs
- Cultural Clubs
- Faith-Based Clubs
- Fine Arts Organizations and Ensembles
- Fraternities and Sororities
- Honorary and Professional Organizations
- Intramural Athletics
- Special Interest Clubs

The Alliance of Student Organizations (ASO) is the central organization to which all university clubs and organizations belong. A club fair is offered each semester so students can learn more about the clubs and organizations and sign up to join or gather more information. For a complete listing of all active clubs and organizations, go to www.winona.edu/studentactivities.

The Warriors L.E.A.D. Series is a leadership development series designed to assist students in learning about and shaping their leadership knowledge and skills. Based on the Social Change Model of Leadership Development, this series provides students with the chance to focus on becoming individual leaders, group leaders, and community leaders through three distinct programs:

- Emerging Warriors - For students who want to enhance their general leadership skills and knowledge.
- Developing Warriors - For student leaders and club officers who want to improve their skills in leading groups.
- Advancing Warriors - For students who want to take their leadership skills and knowledge to the next level.
All programs are offered fall and spring semesters and are available at no cost to students. For further information about how to get involved, go to www.winona.edu/studentactivities.


## Teaching and Learning Technology Services (Information <br> Technology Services)

Maxwell Hall 130 (507-457-5635)
http://www.winona.edu/tlt
Email: tlt@winona.edu
Teaching and Learning Technology Services staff provide real-time technology support required in the classroom to enhance the learning environment. Classroom support offers the "real-time" services needed to ensure that technology does not become a burden to the educational process. Additional services include event support, audio/video duplication, video editing stations, and technical support and training.

## Warrior Hub

Maxwell Hall, Room 222 (507-457-2800)
www.winona.edu/warriorhub
The Warrior Hub, located on the west side of the newly remodeled Maxwell Hall, is an integrated student enrollment service center. This area incorporates the services of seven departments-Admissions, Advising Services, Career Services, Financial Aid, Parking, Registrar, and Student Accounts-all under one roof. The Warrior Hub provides students with integrated and efficient services in a single stop.

The heart of the center is the second floor "hub" where WSU team members assist students with many of their enrollment service needs. When necessary, team members link students with specialists who work one-on-
one with students to address specific needs. Many of these specialists have offices within the hub.

## WSU Children's Center

On-Campus Site: Wabasha Hall, 101 E Wabasha St.
Off-Campus Site: Madison Elementary School, 515 W. Wabasha St. (507-457-2300)
The WSU 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.
- A model program for regional early childhood professionals.

The Children's Center serves children aged six weeks to 12 years and is open-year round Monday through Friday from 7:00 a.m. to 5:30 p.m., 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 as morning preschool participants. 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.

## POLICIES AND REGULATIONS

Affirmative Action Office
Somsen Hall, Room 202 (507-457-2766)
www.winona.edu/affirmaction/main.asp
The Affirmative Action Officer provides information and investigates complaints of discrimination or harassment based upon race, sex, color, creed, religion, age, national origin, marital status, disability, status with regard to public assistance, sexual orientation, or membership or activity in a local commission as defined by law. The Affirmative Action Officer also investigates concerns regarding sexual assault 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 <br> WSU Security Services

Sheehan Hall, (507-457-5555)
http://www.winona.edu/security/securityact.asp
Email: security@ ${ }_{\text {winona.edu }}$
Winona State University recognizes that providing the safest environment possible is an integral element of the University's educational mission and annually publishes a Campus Security Report that is available to everyone. This report provides statements of policy for a broad range of topics including safety, community relations, environmental safety, enforcement authority, Annual Fire Safety Compliance Report, missing persons, emergency notification and response, and a three-year statistical review of designated crimes on campus.

A printed copy of this report may be obtained (at no charge) from

Winona State University Office of Security (Sheehan Hall, 264 W. Mark Street, Winona, MN 55987) or by calling 507-457-5555. The report in its entirety can be found at this web address:

## http://www.winona.edu/security/files/A1 - WSU_Security_Report Final-1.pdf

For students, faculty, and staff attending WSU-Rochester campus, the Campus Security Report for Rochester can be found at this web address:
http://www.winona.edu/security/files/A1 -_WSU_(RC)Security_Report Final.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 the campus community on the measures that can be taken and the services available to assist in maintaining a safe and secure learning environment. All members of the University community are encouraged to contact the Director of Security by email (dwalski@ winona.edu) or by $^{\text {a }}$ phone (507-457-5555) with any concerns and questions regarding campus security and related issues.

## Student Conduct

Office for Student Life and Development
Kryzsko Commons, Room 130 (507-457-5300)
www.winona.edu/sld
Email: studentlife@winona.edu
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/sld (online Student Handbook) or in the Office for Student Life and Development. Students are responsible for being aware of and complying with all WSU student policies and regulations.
The purpose of the conduct system at WSU is (1) to provide an educational experience through which students learn to understand, accept, and promote attitudes and behavior conducive to responsible citizenship; (2) to provide a system by which students are held accountable for actions that violate University proscribed behaviors listed in the Student Conduct Policy; and (3) to protect the due process rights of students charged with violating these behaviors.
At the discretion of the University, students may be held accountable for behavior-both on and off campus-that constitutes a violation of the Student Conduct Policy or 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 Office for Student Life and Development.

# WSU-ROCHESTER 

Student and Campus Services Office
University Center Rochester
UCR Room SS 128 (507-285-7100)
859 30th Avenue SE (US Highway 14 and 30th Avenue SE)
Rochester, MN 55904-4497
www.winona.edu/rochester

## 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 (RCTC), collaborated to create the University Center at Rochester (UCR). The Greater Rochester area served by the UCR 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 other area institutions.
Its location in the growing city of Rochester provides WSU-Rochester with unique opportunities to offer specialized classes and programs aimed at key industries in the area, including computer science, the health care professions, business, and education. WSU-Rochester's strong "commitment to community" is evident as students, faculty, and staff from a variety of programs engage in experiential community-based learning in area organizations, businesses, and schools.
WSU-Rochester has served the region with distinction, and the numbers tell the story. Approximately 1,500 students are served each year through day, evening, and weekend classes. Over 5,000 bachelor's and master's degree candidates have graduated from programs offered at the WSU-Rochester campus. Approximately 40 resident faculty serve WSURochester; in addition, 20 faculty from the Winona campus are dedicated to the Rochester campus. A number of adjunct faculty professionals from area industries also serve students.

## DEGREES AND PROGRAMS

WSU-Rochester provides upper-division courses for the completion of a number of WSU baccalaureate degrees. Entering students can transfer credits from other institutions through individual transcript evaluation or official program articulation agreements with Rochester Community and Technical College. Through these program agreements, students can complete a number of baccalaureate degree programs by transferring lower-division credits from RCTC and completing upper-level courses at WSU-Rochester. Students at WSU-Rochester can also complete numerous undergraduate minors and several graduate degrees at the Master's, Specialist, and Doctoral levels. See page 35 for detailed descriptions of the undergraduate programs. For more information about the graduate programs, see the WSU Graduate Catalog.

## 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.)

## Non-Credit Programs

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

## ADMISSION AND REGISTRATION

Students who are not seeking a degree can enroll in WSU-Rochester classes without being formally admitted to the University; however, they must apply through the Provisional Admission process. Provisional Admission is based on the admissions requirements for individual programs.

Students seeking a degree must apply for admission to the University. For transfer students who have previously attended a MnSCU campus, WSU will retrieve their transcripts electronically. Students should be aware that some degree programs also require an additional admission process. For general information about undergraduate admissions, see page 5. For general information about registration and academic records, see page 15.

While students applying for graduate degree programs must apply through the Graduate School office, it is possible to enroll in graduate courses as a "Graduate Special" student without applying to a graduate program. The student must provide proof that he or she has earned an undergraduate degree. For information about graduate admissions, consult the WSU Graduate Catalog.

## 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: Maxwell Hall (507-457-5340)
www.winona.edu/career
Career Services assists undergraduate and graduate 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 for assistance in their search for full-time employment. Students are encouraged to activate their individual EZLink accounts with Career Services early to take full advantage of the broad range of services offered.

Students may schedule individual advising appointments to discuss career direction and questions related to the job search, to critique resumes and cover letters, and to obtain tips on interviewing. They may also schedule appointments for mock interviews on the Career Services virtual interview kiosk at the Winona campus.

Career Services provides opportunities for students to interact with employers through career fairs, job fairs, and on-campus interviews. Once students activate their EZLink account, upload, and publish their resumes with Career Services, employers can access 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, graduate follow-up results, and additional resources are available in the office as well as our website.
The Career Services office is open from 8:00 a.m. to 4:30 p.m. during the academic year and from 7:30 a.m. to 4:00 p.m. during the summer. Evening and weekend hours are available by appointment.

## Computer Facilities

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

## Financial Aid

Students must apply for financial aid online through the FAFSA website: www.fafsa.gov. Representatives from the WSU Financial Aid Office are available on the WSU-Rochester campus each week. Interested students should call to arrange an appointment with a financial aid advisor (507-2857100).

## Housing and Dining

The University Center Rochester (UCR) is a non-residential, 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. A listing of housing information available for students is available on the WSU-Rochester website (www.winona.edu/rochester) or at the UCR Information Desk.

The UCR cafeteria is located on the third floor of the College Center. In addition to the cafeteria, Café Express, located in the Health Sciences building, offers light meals and snacks. In addition, students may use the microwaves located in the cafeteria as well as food and beverage vending machines located throughout the campus complex.

## International Students

Staff members from the Office of International Services are available on the WSU-Rochester campus. Students may schedule appointments or request information by calling the Office of International Services on the Winona campus (507-457-5303 or www.winona.edu/internationaloffice).

## Disability Services

Services and accommodations for students with special needs are available by request. Students may schedule appointments or request information by contacting the Disability Services on the Winona campus (507-457-2391; ds@winona.edu).

## Child Care

Child care for WSU-Rochester students is available on the UCR campus. Students may request information by contacting the UCR Child Care Center (507-285-7232).

## 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 with 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 UCR parking fee for each semester. 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

Educational records of students taking classes at the UCR campus may be made available to employees of WSU and RCTC while the student is attending the UCR campus if access to a student record is required in order to provide services to the student.

## GRADUATE PROGRAMS, DEGREES, AND CERTIFICATES

## Doctor of Nursing Practice (DNP)

## Educational Specialist (EdS)

- K12 Principal
- General Leadership (Superintendency)


## Master of Science (MS) in Counselor Education:

- Community Counseling
- Professional Development
- School Counseling


## Master of Science (MS) in Education:

- Graduate Induction Program
- Learning Communities (Master Teacher Program)


## Master of Science (MS) in Education Leadership:

- General School Leadership
- K12 Principalship
- Outdoor Education/Adventure-Based Leadership
- Teacher Leadership
- Sports Management


## Master of Science (MS) in Nursing:

- Adult Nurse Practitioner
- Clinical Nurse Specialist
- Family Nurse Practitioner
- Nurse Administrator
- Nurse Educator

Master of Science (MS) in Special Education

- Developmental Disabilities Emphasis
- Early Childhood Emphasis
- Learning Disabilities Emphasis

Post-Nursing Master's Certificates in Adult Nurse Practitioner, Family Nurse Practitioner, Nurse Educator, Nurse Administrator, and Clinical Nurse Specialist focus areas

Post- Baccalaureate Secondary Teacher Preparation Collaborative (TPC)
Licensure programs for K-12 Principal and Superintendent
Post-Baccalaureate Teacher Licensure program in Special Education (K-12 Learning Disabilities or Developmental Disabilities; Birth to Age 8 Special Education Early Childhood)

Certificate in Addictions Counseling (CE)
Certificate in Outdoor Education/Adventure-Based Leadership
Certificate in Sports Management
For more information about the graduate programs, see the WSU Graduate Catalog, or go to www.winona.edu/graduatestudy .

## UNDERGRADUATE PROGRAMS

## Path to Purple Programs

WSU-Rochester offers upper-division (junior/senior level) courses to provide transfer students with the opportunity to complete a number of WSU baccalaureate degree programs. Students can transfer credits from Rochester Community and Technical College (RCTC) to WSU through individual transcript evaluation and/or through official articulated agreements with RCTC. Through these special agreements, students may complete a number of courses and baccalaureate degree programs by transferring their lower-division credits from RCTC to apply toward course requirements for baccalaureate programs offered by Winona State University. Also, credits earned from other institutions will be evaluated for transfer.

Listed below are the baccalaureate programs for which advisement guides have been developed for specific articulated programs. Students interested in transferring to WSU-Rochester or to WSU-Winona should schedule an appointment with a faculty program advisor or a general campus advisor for detailed program guidance. All students must meet the specific program and graduation requirements listed in the WSU University Catalog for each individual academic degree program.

Accounting
Business Administration
Computer Information Systems
Computer Science
Computer Science - Bioinformatics
Early Childhood Special Education
Elementary Education K-6 w/Middle Level Communication
Arts \& Literature 5-8 Specialty
Elementary Education K-6 w/Middle Level Social Studies 5-8 Specialty
Nursing - Baccalaureate: Nursing
Nursing - Baccalaureate: RN Completion
Professional Studies
Social Work

## ACCOUNTING

120 S.H. Total

## RCTC Lower-Division and Prerequisite Courses

Note: Contact an RCTC counselor/advisor or visit the RCTC website (www.roch.edu) for lower-division program requirements.

## WSU-Rochester (Upper-Division Courses)

Note: Students must be admitted to the College of Business (COB) prior to enrollment in 300 - or 400 -level courses. COB admission requires 30 or more S.H. earned at the time of application, cumulative GPA of 2.5, completion of the following with a minimum grade of "C": ACCT 211, CMST 191, ECON 201, ENG 111, MATH 110 or above, and ECON 222 or STAT 210.

Accounting－ACCT
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）
B． 471 Auditing（3）
Business Administration－BUSA
311 Business Law II（3）
Economics－ECON
322 Intermediate Statistics for Business and Economics（3）
Finance－FIN
360 Corporate Finance（3）
Management－MGMT
— 325 Organizational Dynamics（3）
334 Operations Management（3）
m 495 Strategic Management（3）
Management Information Systems－MIS
362 Management Information Systems（3）
One ECON 300－400 elective（3）
Two ACCT 300－400 electives（6）
Open electives to meet 120 S．H．

## BUSINESS ADMINISTRATION

120 S．H．Total

## RCTC Lower－Division and Prerequisite Courses

Note：Contact an RCTC counselor／advisor or visit the RCTC website （www．roch．edu）for lower－division program requirements．

## WSU－Rochester（Upper－Division Courses）

Note：Students must be admitted to the College of Business（COB）prior to enrollment in 300－or 400－level courses．COB admission requires 30 or more S．H．earned at time of application，cumulative GPA of 2．5，completion of the following with a minimum grade of＂C＂：ACCT 211，CMST 191， ECON 201，ENG 111，MATH 110 or above，and ECON 222 or STAT 210.

Business Administration－BUSA
311 Business Law II（3）
Finance－FIN
360 Corporate Finance（3）
Management－MGMT
— 317 Management of Human Resources（3）
巴 325 Organizational Dynamics（3）
334 Operations Management（3）
345 International Business（3）
464 Project Management（3）
m 495 Strategic Management（3）
Management Information Systems－MIS
362 Management Information Systems
Two BUSA，MGMT or MIS 300－400 electives（6）
Two College of Business 300－400 electives（6）
Open electives to meet 120 S．H．total

## COMPUTER INFORMATION SYSTEMS

120 S．H．Total

## RCTC Lower－Division and Prerequisite Courses

Note：Contact an RCTC counselor／advisor or visit the RCTC website （www．roch．edu）for lower－division program requirements．

WSU－Rochester（Upper－Division Courses）
Computer Science－CS
310 Social Implications of Computing（3）
时 341 Data Structures（4）
375 Computer Systems（4）
B 385 Applied Database Management Systems（3）
B 410 Software Engineering（3）
＊， 471 Object Oriented Design and Development（3）
485 Database Systems Design（3）
Management Information Systems－MIS
362 Management Information Systems（3）
Two courses selected from：CS 344，CS 472，CS 482
9 S．H．selected from：BUSA 291，ECON 201†，ECON 202†，FIN 360， MKTG 300，MGMT 315，MGMT 325，MGMT 334.

6 S．H．（at least 3 S．H．at 400－level）selected from：CS 313，366，368， 369 ，
$405,411,413,415,420,425,430,433,435,440,444,445,450,465,466$ ，
467，476，491，495，PHYS 333.
Open electives to meet $120 \mathrm{~S} . \mathrm{H}$ ．total
$\dagger$ Note：If the economics course is counted as a University Studies requirement，it will not be counted as part of the major．

## COMPUTER SCIENCE

120 S．H．Total

## RCTC Lower－Division and Prerequisite Courses

Note：Contact an RCTC counselor／advisor or visit the RCTC website （www．roch．edu）for lower－division program requirements．

```
WSU-Rochester (Upper-Division Courses)
Computer Science - CS
    310 Social Implications of Computing (3)
pu 341 Data Structures (4)
    375 Computer Systems (4)
B385 Applied Database Management Systems (3)
    405 Operating Systems (3)
B-410 Software Engineering (3)
    415 Principles of Programming Languages (3)
    435 Theory of Computation (3)
    4471 Object Oriented Design and Development (3)
Physics - PHYS
    332 Computer Organization (2)
```

18 S.H. of electives (at least 12 S.H. at the $\mathbf{4 0 0}-\mathrm{level}$ ) selected from: CS
$313,344,366,368,369,411,413,420,425,430,433,440,444,445,450$,
465, 466, 467, 472, 476, 482, 485, 495; PHYS 333.
Open electives to meet 120 S.H. total

## COMPUTER SCIENCE－BIOINFORMATICS

120 S．H．Total

## RCTC Lower－Division and Prerequisite Courses

Note：Contact an RCTC counselor／advisor or visit the RCTC website （www．roch．edu）for lower－division program requirements．

WSU－Rochester（Upper－Division Courses）
Computer Science－CS
310 Social Implications of Computing（3）
po 341 Data Structures（4）
368 Introduction to Bioinformatics（3）
375 Computer Systems（4）
ß 385 Applied Database Management Systems（3）
B－410 Software Engineering（3）
468 Algorithms in Bioinformatics（3）
此471 Object Oriented Design and Development（3）
485 Database Systems Design（3）
6 S．H．of electives（at least 3 S．H．at the $400-\mathrm{level}$ ）selected from：CS 313， $344,366,405,411,413,415,420,425,430,433,435,444,445,450,465$ ， 466，472，476，482，491，495；PHYS 333.
One of the following courses OR any 400－level CS elective course listed above：CHEM 340，CHEM 350 （WSU）OR CHEM 2127 （RCTC），any 400－level CS course listed above．
Other major requirements at WSU：STAT 210，STAT 301，OR STAT 305 and BIOL 242 （WSU）OR BIOL 1230 （RCTC）．
Open electives to meet 120 S．H．total
BS－SPECIAL EDUCATION：EARLY CHILDHOOD
120 S．H．Total
Rochester Community and Technical College（RCTC）© Winona State University （WSU）－Program Location：Rochester，MN
First two years：MN Transfer Curriculum and Specialty Courses delivered by RCTC
Second two years：Bachelor of Science（BS）Degree in Special Education： Early Childhood at WSU（ECSE）

## I．MINNESOTA TRANSFER CURRICULUM COURSES（40 S．H．）

 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．Goal 1：Written and Oral Communication（11 S．H．）

ENGL 1117 $\dagger$ Reading \& Writing Critically I (4)
ENGL $1118 \dagger$ Reading \& Writing Critically II (4)
SPCH 1114 Fundamentals of Speech (3)
Goal 2: Critical Thinking - May be met by any course in MNTC Goals 1-10
Goal 3: Natural Sciences (6 S.H.)
A minimum of two courses with labs from two different areas:
biology, chemistry, earth science, physics (6)
Recommend Goal 10 from this category.
Goal 4: Mathematics/Symbolic Systems (3 S.H.)
MATH 1111 Contemporary Concepts in Mathematics OR higher MATH course (3)
Goal 5: History and the Social and Behavioral Sciences (10 S.H.)
PSYC 2618 General Psychology (4)
Two additional 3-credit courses from two different areas:
anthropology, economics, geography, journalism, history, political science, sociology (6)
Recommend Goal 9 from this category.
Goal 6: Humanities-Arts, Literature, and Philosophy (9 S.H.)
SPAN 1001 Introduction to Hispanic Cultures (3)
ENGL 2297 Survey of Children's Literature (3)
One additional 3-credit course selected from: ART 1170, HUM
1190, a music course, or SPCH 1125 (3)

## General Education Elective (1 S.H.)

## Health and Human Performance (4 S.H.)

HLTH 1111 Health Education (3) OR
HLTH 1132 Drug Use and Abuse (3)
One additional credit: Any combination of health courses (numbered 1102, $1110,1114,1135$, or 2126 ) and/or physical education courses (numbered 1100-1199). One credit may be selected from varsity athletics (PHED 1210-1236; 2210-2236) (1)
Select a Goal 7, 8, 9, 10 course if these areas have not been met by a course selected in Goals $1,3,4,5$, and 6.
$\dagger$ Honors equivalent available.

## II. PROGRAM-RELATED TECHNICAL OR PROFESSIONAL

 COURSES (16 S.H.)CD 1310 Infant/Toddler Development \& Learning (4)
CD 1340 Planning \& Implementing Curriculum (3)
CD 2810 Practicum I (3) OR
CD 2840 Practicum II (3)
CD 1220 Child Safety, Health, Nutrition (3) OR
CD 2540 Supporting Children's Mental Health (3)
CD 1320 Observing \& Assessing (3)

## TOTAL RCTC S.H. - 60

## Notes:

1. Students who complete the RCTC coursework may apply for an AA degree. An AA degree waives WSU University Studies requirements except for the Flag requirements (page 19).
2. Students should apply to WSU no later than the beginning of their third semester at RCTC or after completion of 30 S.H.
3. Up to 72 S.H. from RCTC (or from RCTC and another MnSCU community college) may be transferred to WSU.

## MAJOR REQUIREMENTS AT WSU

Professional Education Sequence ( 26 S.H.)
EFRT 303 Human Development and Learning: Elementary Education with Early Childhood Emphasis (4)
EFRT 308 Human Relations and Student Diversity (3)
解 EFRT 310 Instructional Planning and Assessment: Elementary Education with Early Childhood Emphasis (3)
ß EFRT 459 The Professional Educator (3)

* SPED 455 Early Childhood Special Education Student Teaching (12-15)
Specialty Courses (19 S.H.)
EDUC 416 Early Childhood/Kindergarten Curriculum (4)
SPED 450 Early Childhood Special Education Foundations (2)
SPED 451 Early Childhood Special Education Assessment, Planning, and Placement (4)
SPED 452 Early Childhood Special Education Instructional Design and Implementation (4)
SPED 453 Early Childhood Special Education Collaboration (2)
SPED 454 Early Childhood Special Education Field Experience (3)
Licensure Courses ( 15 S.H.)
SPED 400 Education of Exceptional Children/Youth (3)
SPED 405 Student Management Systems (3)

SPED 410 Introduction to Assessment/Methods (3)
SPED 420 Special Education Administrative Procedures (3)
SPED 430 Characteristics of Students with Disabilities (3)
TOTAL WSU S.H. - 60
Total S.H. Required for a BS Degree in Special Education - Early Childhood: 120 SH

Note: All RCTC Child Development (CD) technical S.H. are counted toward the total 120 S.H. needed for the WSU Special Education: Early Childhood BS degree. This allows RCTC students to transfer all CD courses to WSU.

ELEMENTARY EDUCATION: K-6 W/MIDDLE LEVEL COMMUNICATION ARTS AND LITERATURE 5-8 SPECIALTY
120-128 S.H. Total
Rochester Community and Technical College (RCTC) \& Winona State University (WSU)
First two years: Associate in Arts (AA) degree in Liberal Arts at RCTC
Note: Contact an RCTC counselor/advisor or visit the RCTC website (www.roch.edu) for lower-division program requirements.
Second two years: Bachelor of Science (BS) Teaching Degree in
Elementary Education with Middle Level Communication Arts \& Literature (KMCL) at WSU

Note: When this catalog went to print, Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact the Rochester Education Department for the latest information about program requirements.

## ELEMENTARY EDUCATION: K-6 W/MIDDLE LEVEL SOCIAL STUDIES 5-8 SPECIALTY <br> 120-128 S.H. Total <br> Rochester Community and Technical College (RCTC) © Winona State University (WSU)

First two years: Associate in Arts (AA) degree in Liberal Arts at RCTC
Note: Contact an RCTC counselor/advisor or visit the RCTC website (www.roch.edu) for lower-division program requirements.
Second two years: Bachelor of Science (BS) Teaching Degree in K-6 with Middle Level Social Studies 5-8 (KMSO) at WSU

Note: When this catalog went to print, Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact the Rochester Education Department for the latest information about program requirements.

## NURSING - BACCALAUREATE: NURSING

Note: When this catalog went to print, the Baccalaureate Nursing program was suspended due to extensive redesign; the program will be resumed in fall semester 2012. Please contact the Department of Nursing for further details.

## BS MAJOR - NURSING: BACCALAUREATE RN COMPLETION (NURN)

52 S.H. (Required courses must be taken for a letter grade.)
Note: Includes 24 S.H. of nursing in transfer or exam.

## Admission to the Baccalaureate RN Completion program

Complete the WSU admissions process before applying to the nursing major. After receiving the Official Evaluation of Credit from the Office of Admissions, arrange an appointment with a nursing advisor on the Rochester campus.

1. Apply for admission to the nursing major. Applicants to the Baccalaureate RN Completion Program are admitted once a year for the following academic year.
2. 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 Baccalaureate RN Completion Program to ensure that all requirements are fulfilled. Select the full-time or part-time option for completing the nursing courses.
3. Additional degree requirements beyond nursing courses will need to be completed for graduation. It is highly recommended that all other
credit requirements be completed prior to starting the Baccalaureate RN Completion Program.
4. All Baccalaureate RN Completion students must hold a current RN license issued by a state or territory of the United States. A photocopy of the license must be submitted to the Nursing Department.
5. The admission GPA is calculated on the most recent five years of college coursework or the last 50 semester hours of credits of college work. A 2.75 GPA is required for admission into the Baccalaureate RN Completion Program.
6. Twenty-four credits in the Baccalaureate RN Completion Program of the nursing major (NURS 302, NURS 304, NURS 306 and NURS 308) will be granted by transfer to RNs 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. If all examinations are successfully completed, the 24 credits are granted. NURS 302, 304, 306, and 308 are described on page 172.
7. RN graduates from a non-accredited nursing program will be required to complete an assessment to validate prior learning.
8. Associate nursing degrees received before 1985 will be reviewed on an individual basis.

## Admission to the RN-to-MS Professional Pathway

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 to earn a Master's 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. Acceptance in a focus area is not guaranteed. Further information can be obtained from the Department of Nursing at WSU-Rochester.

## 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 ( RNs ) 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 (AS) 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 an RN.
4. The AS degree transfers to the baccalaureate institution as a complete package of nursing major and supporting courses.
5. Articulation RNs should not be required to complete more total credits for the degree than the nursing baccalaureate students.

## REQUIRED COURSES - NURS

DJ 375 Evidence-Based Research (3)
415 Holistic Caring (4)
435 Holistic Assessment (3)
巴 445 Evidence-Based Leadership and Management (3)
455 Continuity of Care (4)
465 Population-Based Care (4)
B 475 Community Health Nursing (4)

* 491 Professional Development (3)

For a description of Nursing courses, see page 172.

## 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. For the Baccalaureate RN Completion nursing major, WSU counts up to 90 transfer credits from accredited two- or four-year institutions towards a student's four-year Bachelor degree. With departmental approval, credits are also accepted from certain other schools and programs.
A total of 120 semester credits are needed to graduate with a baccalaureate degree from WSU. At least 40 of the 120 credits must be at the 300 - and $400-\mathrm{level}$. Also, at least 30 of the 120 credits needed for graduation must be earned at WSU. Twenty-eight credits in nursing fulfill the majority of
the upper-division credit requirement and almost all the resident credit requirement. Students will need 12 additional 300- or 400-level credits (WSU or transfer credits) and two additional earned credits from WSU. The two additional credits from WSU may be 300 - or $400-$ level credits and can also apply toward the 40 -credit upper-division requirement.

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 23.

## PROFESSIONAL STUDIES

UCR, Room SS 130 (507-285-7148)
Jan Stephenson (Advisor)
Professional Studies majors must meet all WSU policies regarding admission, GPA, graduation, University Studies, flag requirements, and major/minor requirements that are in effect when they declare the Professional Studies major/minor.

## General Option

48 S.H. at the 300- and 400-level
University Studies Flag Courses:
M Oral Flag (3)
B Writing Flag (6)
Po Math/Critical Analysis Flag (3)
Statement of Goals
Open electives to meet 120 S.H. total

## Leadership Option

Requirements as listed above, with 21 S.H. of the required 48 S.H. at the
300-400 level selected from:
Business Administration - BUSA
326 Business and the Future (3)
Business Education - BUED
350 Quality of Work Life (3)
360 Interpersonal Business Relations (3)
412 Team Building (1-3)
Communication Studies - CMST
® 366 Organizational Communication (3)
371 Small Group Communication (3)
387 Interpersonal Communication (3)
Counselor Education - CE
432 Stress Management (3)
Management-MGMT

- 325 Organizational Dynamics (3)

334 Operations Management (3)
464 Project Management (3)
Marketing - MKTG
300 Principles of Marketing (3)
Mass Communication-MCOM
340 Public Relations Cases (3)
Management Information Systems - MIS
362 Management Information Systems (3)
Psychology - PSY
305 Theories of Personality (3)
325 Social Psychology (3)
330 Psychology and the Law (3 S.H.)
425 Organizational Psychology (3)
Sociology - SOC
423 Race Relations and Minority Groups (3)

## SOCIAL WORK

120 S.H. Total
Rochester Community and Technical College (RCTC) © Winona State University (WSU)
First two years: Associate in Arts (AA) degree in Liberal Arts at RCTC
Second two years: Bachelor of Social Work (BSW) Degree at WSU
I. General Education Requirements (44 S.H.)

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 Communication (11 S.H.)
ENGL 1117† Reading \& Writing Critically I (4)
ENGL $1118 \dagger$ Reading \& Writing Critically II (4)
SPCH 1114 Fundamentals of Speech (3)
Goal 2: Critical Thinking - Met by any course in MNTC Goals 1-10
Goal 3: Natural Science (7 S.H.)
BIOL 1110 Human Biology (4)
A second course with lab from the following areas: chemistry, earth science, or physics (3)

Goal 4: Mathematics (4S.H.) MATH 2208 Fundamentals of Statistics (4)
Goal 5: History and Social Sciences (13 S.H.)
PSYC 2618 General Psychology (4)
PSYC 2626 Developmental Psychology (3)
SOC 1614 Introduction to Sociology (3)
A minimum of 3 S.H. from one of the following disciplines:
anthropology, economics, geographyt, historyt, political science. (3)
Goal 6: Humanities and Fine Arts (9 S.H.)
Choose from the following disciplines with a minimum of two credits from three different areas: art, English literature, foreign culture, humanities $\dagger$, mass communication, music, philosophy $\dagger$, speech/theater.

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 .
$\dagger$ Honors equivalent available.
II. Health and Human Performance (2 S.H.)

Any combination of health and/or physical education activity .. courses 1100-1199.
One credit may be from varsity athletics.
III. Electives (14 S.H.)

Note: Concurrent enrollment at WSU in spring term of the final year at RCTC.
(4) SOCW 340 Introduction to Social Work (3)

SOCW 350 Field Experience (3)
The remaining 8 S.H. in this area are open electives. (8)

TOTAL RCTC S.H. - 60
Note: The award of the AA degree waives WSU University Studies requirements except for the Flag requirements (page 19).

## MAJOR REQUIREMENTS AT WSU

## Social Work - SOCW (43-49 S.H.) $\dagger$

(4) 340 Introduction to Social Work and Social Welfare (3)

350 Field Experience (3)
365 Social Work Practice I- Ethics and Interviewing (3)
370 Human Behavior in the Social Environment (3)
380 Social Welfare Policy (3)
385 Social Work Practice II - Families and Groups (3)
R 390 Social Work Research Process and Skills (3)
400 Practicum Preparation (4)
PJ 410 Analysis of Social Welfare Policy (3)
415 Social Work Practice III - Organizations and Communities (3)
475 Social Work Senior Practicum (12)
B. 480 Integrative Social Work Seminar (3)

Note: One of the following must be taken to fulfill the Social Work
"diversity" Requirement:
355 Multicultural Issues (3) OR
361 Mexican Social Services (3) OR
435 Social Work Practice with Diverse Populations (3)
Open Electives (11-17 S.H.)**

## TOTAL WSU S.H. - 60

$\dagger$ Note: Forty-nine S.H. of SOCW are required for this degree.
However, of the 49 semester hours, students may take six S.H. (SOCW 340 and SOCW 350) within their AA degree at RCTC.
**Note: The number of open elective S.H. is determined by whether SOCW 340 and SOCW 350 are credited to the AA degree.
Total S.H. Required for a Bachelor of Social Work Degree: 120 S.H.

## WSU COLLEGES \& UNDERGRADUATE PROGRAM DESCRIPTIONS

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 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, $400-l e v e l$. 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 creditonly 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.

# COLLEGE OF BUSINESS 

James (Bill) Murphy, Dean
Somsen Hall, Room 309 (507-457-5014)
www.winona.edu/business/

## MISSION

The mission of the College of Business is to provide quality undergraduate business programs designed to prepare students who can creatively, responsibly, and adaptively apply their knowledge and skills, thereby exemplifying the qualities of engaged, well-educated citizens and successfully responding to the challenges of their work, their lives, and their communities. The faculty fosters an engaging and supportive learning environment, informed by pedagogical scholarship and enhanced by applied research that promotes both human and economic development in Southeast Minnesota. Based on an integrated liberal arts education core woven through the curriculum, students learn effective communication skills, collaborative problem-solving strategies, analytical skills, and the application of contemporary business practices so that they are prepared to react responsibly and creatively to social, economic, global, and technological changes in their careers.

## ACCREDITATION

The College of Business is actively pursuing accreditation by the Association to Advance Collegiate Schools of Business (AACSB). Accreditation by AACSB International represents the highest standard of achievement for business schools worldwide. Institutions that earn accreditation confirm their commitment to quality and continuous improvement through a rigorous and comprehensive peer review. AACSB International accreditation is the hallmark of excellence in management education, and it assures stakeholders that a business school:

- Manages resources to achieve a vibrant and relevant mission.
- Advances business and management knowledge through faculty scholarship.
- Provides high-caliber teaching of quality and current curricula.
- Cultivates meaningful interaction between students and a qualified faculty.
- Produces graduates who have achieved specified learning goals.


## ADMISSION TO THE COLLEGE OF BUSINESS

Admission to the College of Business (COB) for College of Business BS majors and minors is required before students may enroll in 300-and 400-level classes. $\dagger$ Students must meet the following specific requirements:

1. 30 or more earned credits at the time of application.
2. Cumulative GPA of 2.5 .
3. Completion of the following courses with a minimum grade of "C":

ACCT 211 CMST 191 ECON 201
ECON 222 or STAT 210 $\ddagger$ ENG 111 MATH 110 or above $\ddagger$
$\dagger$ Non-College of Business majors and minors must have junior status and instructor's permission to take COB 300- and 400-level courses.
$\neq \mathrm{COB}$ minors with non-COB major: Completion of math and statistics courses required by their major or, if none are required, these students should take any college-level math and statistics courses.

## Requirements for all Bachelor of Science Majors

All Bachelor of Science majors are comprehensive and require no minor. The requirements for the Bachelor of Science degree majors include:

- Completion of the Common Core: ACCT 211, ACCT 212, BUSA 291, ECON 201, ECON 202, ECON 222 or STAT 210, FIN 360, MATH 110 or above, MGMT 325, MGMT 334, MGMT 495, MIS 362, and MKTG 300.
- The specific requirements of each major.


## DEPARTMENTS

Accounting, Business Administration, Economics, Finance, and Marketing.

## FACUITY

Over 85 percent of College 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 and from attending professional conferences, seminars, and workshops. Many business faculty participate in developing innovative and interdisciplinary approaches to teaching that help to broaden student perspectives.

## CAREER OPPORTUNTITES

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 departments in the College of Business offer 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 general university 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

Several student organizations are available for majors and minors in the College of Business. 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. Student organizations are actively involved in bringing speakers to campus who present a broad range of business topics.

## UNDERGRADUATE DEGREES OFFERED BY THE COLLEGE OF BUSINESS

| Department/ Program | $\begin{gathered} \text { BA } \\ \text { Major } \end{gathered}$ | BA Minor | $\begin{gathered} \text { BS } \\ \text { Major } \end{gathered}$ | BS Minor |
| :---: | :---: | :---: | :---: | :---: |
| Accounting Department |  |  |  |  |
| Accounting (ACCT) |  |  | - | - |
| Business Administration Department |  |  |  |  |
| Business Administration (BA) |  |  | - | - |
| Business Law (BLAW) |  |  |  | - |
| Human Resources Management (HRMT) |  |  | - |  |
| International Business (INTB) |  |  |  | - |
| Management (MGMT) |  |  |  | - |
| Management Information Systems (MIS) |  |  | - | - |
| Economics Department |  |  |  |  |
| Economics (ECON) | - | - |  |  |
| Finance Department |  |  |  |  |
| Finance |  |  |  | - |
| Option A (FIA) |  |  | - |  |
| Option B (FIB) |  |  | - |  |
| Marketing Department |  |  |  |  |
| Marketing (MKTG) |  |  | - | - |

## COLLEGE OF EDUCATION

Dean<br>Gildemeister Hall, Room 101 (507-457-5570)<br>www.winona.edu/education/

## MISSION

The College of Education's mission is to provide continuing leadership and excellence in preparing classroom teachers, counselors, administrators, and other professionals in education, recreation, and therapeutic recreation. It accomplishes its mission by offering undergraduate and graduate programs, which prepare professionals for practice in both public and private sectors of society.

The College strives to provide the knowledge, skills, professionalism, and practice necessary to enable students to perform with excellence as 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 through general education, professional work, and travel study.

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.

## ACADEMIC DEPARTMENTS

Business Education; Counselor Education; Education; Education Leadership; Educational Foundations, Research, and Technology; Physical Education and Sport Science; Recreation, Tourism and Therapeutic Recreation; Rochester Education; and Special Education.

Note: The Department of Education Leadership offers only graduatelevel 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 23 .

## 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: Association for Childhood Education International, Council for Exceptional Children, National Association for the Education of Young Children, National Association of Schools of Music, National Council of Teachers of English, National Council of Teachers of Mathematics, and the National Council for the Social Studies.

WSU's Counselor Education programs are accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) and NCATE. Programs in the Department of Education Leadership are also accredited by NCATE and approved by the Board of School Administrators (BSA).

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 and recreational organizations as demonstrated by (but not limited to) the following ongoing partnerships including:

- Urban Teacher Education Partnership (UTEP) - A collaboration of St. Paul Public schools and the seven Minnesota State Colleges and Universities teacher preparation institutions.
- Student teaching exchange program with Fort Valley State University (Fort Valley, Georgia).
- Student teachers in over 40 contracted schools in Wisconsin and Minnesota.
- ELOSA - Educational Leaders on Special Assignment at WSU.
- Teacher exchanges of university faculty and school district faculty.
- The Partnership for Lifelong Learning - Phase I Early Childhood.
- Graduate Induction Program with Rochester Public Schools (Rochester, Minnesota).
- Transforming School Counseling Partnership with Rochester Public Schools (Rochester, Minnesota).
- Learning Community Master Teacher Program.
- Innovative Academic Programs.
- Teacher Licensure Collaborative Program (TLC).
- Pacific Challenge Australia/New Zealand Travel Study Program.


## Path to Purple Programs

In addition to the above partnerships, the College of Education is an active partner in the Path to Purple program, through which upperdivision (junior- and senior-level) courses can provide transfer students with the opportunity to complete a number of Winona State University baccalaureate degree programs. Students can transfer credits from Rochester Community and Technical College (RCTC) and other institutions to WSU through individual transcript evaluation and/or through official articulated agreements with RCTC. Students interested in transferring to WSU should schedule an appointment with a faculty program advisor or a general campus advisor (in the Office of Admissions) for detailed program guidance. All students must meet the specific program and graduation requirements listed in the WSU Catalog for each individual academic degree program. For more detailed information about Education majors offered in the Path to Purple program, see page 35.

## HONOR SOCIETIES AND STUDENT ORGANIZATIONS

Academically accomplished students are recognized by WSU chapters of the professional honor societies Kappa Delta Pi and Alpha Upsilon Alpha. Pre-professional students may join student chapters of professional organizations: American Therapeutic Association, Education Minnesota Student Program, Minnesota Recreation and Park Association, National Recreation and Park Association, Student Association for Supervision and Curriculum Development, Student Council for Exceptional Children, and the Student International Reading Association.

## WSU CHILDREN'S CENTER

The WSU Children's Center (located in Wabasha Hall and Madison Elementary School) 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 WSU 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 | Neaching <br> Major | Non- <br> Teaching <br> Major | Non- <br> Teaching <br> Minor |
| :--- | :---: | :---: | :---: |
| Education Department |  |  |  |
| Business Education (BEDT) | $\bullet$ |  |  |
| Elementary Education | $\bullet$ |  |  |
| Early Childhood (Birth-6) (ELEC) | $\bullet$ |  |  |
| Middle Level Communication Arts <br> and Literature 5-8 Specialty (KMCL) | $\bullet$ |  |  |
| Middle Level Mathematics <br> 5-8 Specialty (KMMA) | $\bullet$ |  |  |
| Middle Level Science 5-8 Specialty (KMSC) | $\bullet$ |  |  |
| Middle Level Social Studies 5-8 Specialty <br> (KMSO) | $\bullet$ |  |  |
| Training and Development (TRDV) |  |  | $\bullet$ |
| Physical Education \& Sport <br> Science Department |  |  |  |
| Coaching (COAC) |  |  | $\bullet$ |
| Physical Education (PET) |  |  |  |
| Recreation, Tourism, \& Therapeutic <br> Recreation Department |  |  |  |
| Adventure Tourism (ADVT) |  |  |  |
| Recreation, Tourism \& Therapeutic Recreation |  |  |  |
| Recreation and Tourism (RT) |  | $\bullet$ |  |
| Therapeutic Recreation (TR) | $\bullet$ |  |  |
| Special Education Department |  |  |  |
| Special Education |  |  |  |
| Developmental Disabilities (SEDD) |  |  |  |
| Early Childhood Special Education (ECSE) | $\bullet$ |  |  |
| Learning Disabilities (SELD) |  |  |  |

See the Graduate Catalog for program descriptions and other pertinent information.

## ADVANCED LICENSURE PROGRAMS

Developmental Disabilities (DD)
Learning Disabilities (LD)
PK-12 Principal
Superintendent
Teacher Licensure Collaborative (TLC)

## CERTIFICATE PROGRAMS

Educational Technology Certificate
Outdoor Education/Adventure Based Leadership
Training and Development Certificate
Sports Management

## MASTER OF SCIENCE (MS)

## Counselor Education

Community 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
Education Leadership
General Leadership (non-licensure)
K-12 Principalship (non-Minnesota licensure)
Outdoor Recreation/Adventure-Based Leadership

## Special Education

Developmental Disabilities (DD)
Learning Disabilities (LD)

## EDUCATIONAL SPECIALIST (EdS)

Education Leadership
PK-12 Principal
General Leadership (Superintendcy)

# COLLEGE OF LIBERAL ARTS 

## Peter V.N. Henderson, Dean

Minné Hall, Room 206 (507-457-5017)
www.winona.edu/liberalarts/

## 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, Arts Administration, Child Advocacy Studies, 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, War, Peace, and Terrorism, 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 OPPORTUNTIIES

The opportunities for career education within the College of Liberal Arts are many and varied. The BA degrees in all the College's disciplines provide opportunities for employment or preparation for advanced degree work in those areas. BS (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, COMMUNTTY 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, communication studies, 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 and the Mass Communication Department are in Phelps Hall. The Dance Studio is located in Memorial Hall.

UNDERGRADUATE DEGREES OFFERED BY THE COLLEGE OF LIBERAL ARTS

| Department/Program | $\begin{gathered} \text { BA } \\ \text { Major } \end{gathered}$ | BA <br> Minor | $\begin{gathered} \text { BS } \\ \text { Major } \end{gathered}$ | $\begin{gathered} \text { BS } \\ \text { Minor } \end{gathered}$ | $\begin{aligned} & \text { BSW } \\ & \text { Major } \end{aligned}$ | AA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Associate of Arts |  |  |  |  |  |  |
| Liberal Arts \& Sciences |  |  |  |  |  | - |
| Art Department |  |  |  |  |  |  |
| Art |  |  |  |  |  |  |
| Graphic Design Option (ARTG) | - |  |  |  |  |  |
| Studio Art Option (ARTS) | - | - |  |  |  |  |
| History of Art (ARTH) |  | - |  |  |  |  |
| Art (teaching) (ARTT) |  |  | - |  |  |  |
| Arts Administration Program |  |  |  |  |  |  |
| Arts Administration (AAD) |  | - |  |  |  |  |
| Child Advocacy Program |  |  |  |  |  |  |
| Child Advocacy Studies (CAST) |  | - |  |  |  |  |
| Communication Studies Department |  |  |  |  |  |  |
| Communication Arts and Literature (teaching) (CALT) |  |  | - |  |  |  |
| Communication Studies (CS) | - | - |  |  |  |  |
| Intercultural Communication (ITCO) |  | - |  |  |  |  |
| English Department |  |  |  |  |  |  |
| English |  |  |  |  |  |  |
| Literature and Language (ENGL) | - | - |  |  |  |  |
| Applied Linguistics (ENGA) | - |  |  |  |  |  |
| Writing Option (ENGW) | - |  |  |  |  |  |
| First Combining Major Literature |  |  |  |  |  |  |


| Second Combining Major Writing <br> Option (ENGS) | $\cdot$ |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Creative Writing (ENGC) |  | $\cdot$ |  |  |  |  |
| Applied \& Professional Writing <br> (EAPW) |  | $\cdot$ |  |  |  |  |
| TESOL (ENGE) |  | $\cdot$ |  |  |  |  |
| Communication Arts and <br> Literature (teaching) (CALT) |  |  |  |  |  |  |
| Teaching English as a Second <br> Language K-12 (teaching) (ESLT) |  |  | $\cdot$ |  |  |  |
| Foreign Languages Department |  |  |  |  |  |  |
| Spanish (SPAN) | • | $\cdot$ |  |  |  |  |
| Spanish (teaching) (SPNT) |  |  | $\cdot$ |  |  |  |

## Geography

| Geography (GEOG) |  | $\cdot$ |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Global Studies Program |  |  |  |  |  |  |
| Global Studies (GLST) |  | $\cdot$ |  |  |  |  |
| Asian Option (GSAS) | $\cdot$ |  |  |  |  |  |
| European Studies (GSEU) | $\cdot$ |  |  |  |  |  |
| Latin American Studies (GSLA) | $\cdot$ |  |  |  |  |  |
| North American Option (GSNA) | $\cdot$ |  |  |  |  |  |
| History Department | $\cdot$ | $\cdot$ |  |  |  |  |
| History (HIST) | $\bullet$ |  |  |  |  |  |
| Law and Society (LWSO) |  |  | $\cdot$ |  |  |  |
| Paralegal (PLG) |  |  |  |  |  |  |
| Social Science/History (Secondary <br> Social Studies Teaching) (SSHT) | $\cdot$ |  |  |  |  |  |


| Mass Communication Department |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mass Communication (MC) |  | - |  |  |  |  |  |
| Advertising Option (MCAD) | - |  |  |  |  |  |  |
| Broadcasting Option (MCB) | - |  |  |  |  |  |  |
| Journalism Option (MCJ) | - |  |  |  |  |  |  |
| Photojournalism Option (MCPJ) | - |  |  |  |  |  |  |
| Public Relations Option (MCPR) | - |  |  |  |  |  |  |
| Music Department |  |  |  |  |  |  |  |
| Music (MUSA; MUSS) |  | - |  | - |  |  |  |
| Liberal Arts Option (MUSL) | - |  |  |  |  |  |  |
| Performance Option (MUSP) | - |  |  |  |  |  |  |
| Jazz Studies (MUJS) |  | - |  |  |  |  |  |
| Music Business (MUBU) |  |  | - |  |  |  |  |
| Music Education (teaching) |  |  |  |  |  |  |  |
| Instrumental Option (MSTI) |  |  | - |  |  |  |  |
| Vocal Option (MSTV) |  |  | - |  |  |  |  |
| Philosophy Department |  |  |  |  |  |  |  |
| Philosophy (PHIL) |  | - |  |  |  |  |  |
| War, Peace, and Terrorism (WPT) |  | - |  |  |  |  |  |


| Political Science Department |  |  |  |  |  |  |  | $\cdot$ |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Political Science (POLS) | $\cdot$ |  |  |  |  |  |  |  |  |  |  |
| General (Option A) (POLA) | $\cdot$ |  |  |  |  |  |  |  |  |  |  |
| International Studies (Option B) <br> (POLB) |  |  | $\cdot$ | $\cdot$ |  |  |  |  |  |  |  |
| Public Administration (PUBA) |  |  |  |  |  |  |  |  |  |  |  |
| Professional Studies Program |  | $\cdot$ |  |  |  |  |  |  |  |  |  |
| Professional Studies (PS) | • |  |  |  |  |  |  |  |  |  |  |
| Aviation Maintenance Management <br> Option (PSAM) | • |  |  |  |  |  |  |  |  |  |  |
| General Option (PSGE) | $\cdot$ |  |  |  |  |  |  |  |  |  |  |
| Leadership Option (PSLE) |  |  |  |  |  |  |  |  |  |  |  |


| Psychology Department |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Psychology (PSY) |  | - |  |  |
| Option A (PSYA) | - |  |  |  |
| Option B (PSYB) | - |  |  |  |
| Social Work Department |  |  |  |  |
| Social Work (SOCW) |  |  |  | - |
| Sociology Department |  |  |  |  |
| Sociology (SOC; SOCG) | - | - |  |  |
| Family Studies Option (SOCF) | - |  |  |  |
| Gerontology (SGER) | - | - |  |  |
| Human Services Option (SOCH) | - |  |  |  |
| Sociology: Criminal Justice |  |  |  |  |
| Corrections Option (SCJC) |  |  | - |  |
| Law Enforcement Option (SCJL) |  |  | - |  |
| Theatre and Dance Department |  |  |  |  |
| Dance (DANC) |  | - |  |  |
| Theatre (THTR) | - | - |  |  |
| Women's and Gender Studies Program |  |  |  |  |
| Women's and Gender Studies (WOMS) |  |  |  |  |

## 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 

William McBreen, Dean
Stark Hall, Room 301A (507-457-5122)
www.winona.edu/nursingandhs/

## 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 Bachelor of Science in Nursing and Master of Science in 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 major holds full accreditation by the Commission on Accreditation of Athletic Training Education (CAATE). 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 Winona Health (Winona, MN); 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), 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 WSU-Rochester in Rochester, MN. The Baccalaureate: Nursing program is offered at both sites, and the Baccalaureate: RN Completion program is delivered primarily from the Rochester site. The graduate programs in Nursing are located at WSURochester. See the Graduate Catalog for information on the Master's program in nursing and the Doctor of Nursing Practice (DNP) program.

## UNDERGRADUATE DEGREES OFFERED BY THE COLLEGE OF NURSING AND HEALTH SCIENCES

| Department/Program | BS Minor Non-Teaching | BS Major <br> Non- <br> Teaching | BS Major Teaching |
| :---: | :---: | :---: | :---: |
| Health, Exercise and Rehabilitative Sciences Department |  |  |  |
| Athletic Training (AT) |  | - |  |
| Exercise and Rehabilitative Science |  |  |  |
| Cardiopulmonary Rehabilitation (ERCR) |  | - |  |
| Exercise Science (ERES) |  | - |  |
| Movement Science (ERMS) |  | - |  |
| Health Promotion |  |  |  |
| Community Health (HPCH) |  | - |  |
| School Health (HPST) |  |  | - |
| Nutrition (NUTR) | - |  |  |
| Wellness Coaching (WELL) | - |  |  |
| Nursing Department |  |  |  |
| Nursing |  |  |  |
| Baccalaureate: Nursing (NUGE) |  | - |  |
| Baccalaureate: RN Completion (NURN) |  | - |  |
| RN-to-MS Professional Pathway |  | - |  |

## 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.

Doctor of Nursing Practice

# COLLEGE OF SCIENCE AND ENGINEERING 

W. Harold Ornes, Dean

Pasteur Hall, Room 101 (507-457-5585)
www.winona.edu/college_science/

## MISSION

The College of Science and Engineering is committed to furthering 21st century advances in science, technology, engineering, and mathematics (STEM) by inspiring the next generation of innovators and teachers and by promoting research and scholarship across STEM disciplines. Through a broad range of major, minor, and pre-professional programs, as well as through basic skills, interdisciplinary, and research-rich learning environments, the College endeavors to ensure the success of all students.

College curricula are designed to provide meaningful, challenging educational experiences and to build deep connections between STEM experiences and disciplinary interests, career goals, and societal issues. To achieve these goals, the College strives to integrate curriculum with vital research in a range of settings, which include research conducted in Upper Mississippi River region environments as well as significant experience at nearby healthcare centers, regional manufacturing and composites industries, state-of-the-art laboratory and computing facilities, and area school districts. These learning experiences help students develop purpose and passion for lifelong learning.

In fulfilling its mission, the College provides high quality undergraduate curricula in STEM leading to the Bachelor of Arts and Bachelor of Science degrees as well as pre-professional programs promoting student progression into a wide range of clinical, professional, and post-graduate studies at other institutions. Pre-professional sequences are not degree programs (e.g., majors or minors) at WSU. These programs are preparatory for an advanced degree at another college or university. WSU offers pre-professional sequences in dentistry, engineering, law, medicine (allopathic and osteopathic), optometry, pharmacy, physical therapy, physician assistant, podiatry, and veterinary medicine. See page 189 for pre-professional program descriptions.

## GOALS, OBJECTIVES, AND ASSESSMENTS

## 1. Goal: Contribute to knowledge in STEM.

Objective: Recruit and retain faculty/staff who design and deliver curricula and conduct research to advance new knowledge or new innovations in STEM.
Assessment: Annually examine faculty plans and reports for evidence of appropriate curricula, facilities, faculty performances in classroom and scholarship, staff performance, student achievement (e.g., number and quality of presentations, publications, and grants in STEM).
2. Goal: Inspire the next generation of innovators and teachers.

Objective: Deliver courses and learning experiences in an environment that inspires students to be creative and innovative scientists, technologists, engineers, mathematicians, or teachers.
Assessment: Annually examine graduation survey data for evidence of numbers of students who are employed, continue in higher education, or become teachers.
3. Goal: Promote research and scholarship among STEM.

Objective: Faculty/staff/students conduct research, write grants, develop programs or centers, publish, and deliver presentations at professional meetings.
Assessment: Annually examine faculty plans and reports for evidence of physical environment and number and quality of student/faculty/staff projects, presentations, publications, and grants.
4. Goal: Ensure the success of all students.

Objective: Faculty will give a full measure of time and energy delivering well-planned and pedagogically sound courses and encourage and facilitate study groups, online collaborations, and other support mechanisms to ensure student success.
Assessment: Annually examine faculty plans and reports for evidence of faculty/staff actions that improve student performance/success. Examine graduation survey data for steady or increasing employment in field and acceptance into graduate or professional schools.
5. Goal: Provide meaningful, challenging educational experiences.

Objective: Faculty/staff will create, deliver, and manage a full measure of well-organized, academically challenging classroom and learning experiences.
Assessment: Annually examine faculty plans and reports for evidence of First Day of Class Syllabi and evidence that all assignments, tests, study
guides, and ancillary course materials enhance educational experiences. Also, examine student/peer evaluations and graduation survey data for evidence of student satisfaction as well as employment and/or acceptance into graduate or professional schools.
6. Goal: Build deep connections among STEM, career, and societal issues.
Objective: Faculty, staff, and students will work on community STEMrelated problems and career opportunities; they will also serve on campus interdisciplinary committees.
Assessment: Annually examine faculty and staff plans and reports for evidence of faculty, staff, and student service to campus, community, and society at large.
7. Goal: Integrate curriculum with vital research.

Objective: Courses will train students in the Scientific Method-to work independently and with faculty/staff on projects that develop skills and knowledge pertinent to conducting i.e. (doing) science.
Assessment: Annually track enrollment records in independent study and capstone courses and communicating results to public or peers.
8. Goal: Develop students' purpose and passion for lifelong learning. Objective: Deliver courses and learning experiences that stimulate students' interest in STEM careers and/or continuing education
Assessment: Annually examine graduating student survey and alumni surveys for evidence of students entering STEM careers, graduate schools, and continuing education courses.
9. Goal: Provide high quality undergraduate curricula in STEM.

Objectives: Courses well-organized, delivered, and managed. Student learning outcomes clearly identified and appropriately challenging. Courses continuously updated and improved based on best practices and course evaluations by students and/or peers. Courses meet contact hours/credit hours requirement; have numerous assessments of student learning; timely feedback; and high standards of student attendance, achievement, and citizenship. Multiple sections of the same course will have consistent and predictable content and requirements.
Assessment: Annually examine faculty plans and reports for evidence of best practices in syllabi, course delivery, learning assessments, and course evaluations. Also, examine data from graduating student surveys for evidence of employment and/or continuing higher education as indicators of student successes.

## DEPARTMENTS

Biology, Chemistry, Composite Materials Engineering, Computer Science, 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): Operated by the Department of Chemistry, 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 SEMAS as laboratory technicians and assistants.
- Composite Materials Technology Center (COMTEC): Managed by the Department of Composite Materials Engineering, COMTEC tests manufactured materials and products for numerous local and regional companies that need quality assurance and specification testing. The center also serves as a working laboratory for instruction and engineering research.
- Large River Studies Center (LRSC): Administered through the Department of Biology, 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.
- Southeastern Minnesota Water Resources Center (WRC): Housed in the Department of Geoscience, WRC is dedicated to scientific inquiry into the natural and hydrological resources of the Southeast Minnesota. The WRC strives to educate and inform students, citizens, and public agencies of the region about our natural resources through the development of partnerships and research.


## 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 undertaken during the senior year under the supervision of a WSU faculty member.

## PROGRAM PREREQUISITES

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

| Department/Program | BA Major | BA Minor | BS Major | BS Minor |
| :---: | :---: | :---: | :---: | :---: |
| Biology Department |  |  |  |  |
| Biology (BIOL) |  | $\cdot$ |  |  |
| Allied Health Option (BIAH) |  |  | - |  |
| Cell and Molecular Option (BICM) |  |  | - |  |
| Ecology Option (BIEC) |  |  | - |  |
| Environmental Science Option (BIES) |  |  | - |  |
| Clinical Laboratory Science (CLS) |  |  | - |  |
| Cytotechnology (CYTO) |  |  | - |  |
| Life Science (teaching) (BLST) |  |  | - |  |
| Medical Technology (MEDT) 1 |  |  | - |  |
| Chemistry Department |  |  |  |  |
| Biochemistry (CHBC; BIOC) |  |  | - | - |
| Chemistry (CHEM) |  |  |  | - |
| Option A (CHA) |  |  | - |  |
| Option B (CHB) |  |  | - |  |
| Environmental Science Option (CHES) |  |  | - |  |
| Polymer Chemistry (CHP) |  |  |  | - |
| Physical Science (teaching) (CPST) |  |  | - |  |
| Chemistry (teaching) (CHET) |  |  | - |  |
| Composite Materials Engineering Department |  |  |  |  |
| Composit Materials Engineering (CME) |  |  | - |  |


| Computer Science Department |  |  |  |
| :---: | :---: | :---: | :---: |
| Computer Science (COMS) |  |  |  |
| Computer Science Option (CSCS) |  |  |  |
| Applied Computer Science Option |  |  |  |
| Bioinformatics Track (CSAB) |  |  |  |
| Computer Information Systems Track (CSAC) |  |  |  |
| Geographic Information Technology Track (CSAG) |  |  |  |
| Human Computer Interaction Track (CSAH) |  |  |  |
| Computer Technology (COMT) |  |  |  |
| Geoscience (GEOS) |  |  |  |
| Environmental Science Option (GEES) |  |  |  |
| Geology Option (GEGE) |  |  |  |
| Geoscience Option (GSCE) | - |  |  |
| Mathematics and Statistics Department |  |  |  |
| Mathematics (MATH) | - | - |  |
| Mathematics Education Option2 (MTED) |  |  |  |
| Mathematics: Statistics Option (MTST) |  |  |  |
| Mathematics: Secondary (teaching) (MTHT) |  |  |  |


| Physics Department |  |  |  |  |  |  |  |  | • |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Airway Science/Aviation (ASAV) |  |  | $\cdot$ |  |  |  |  |  |  |
| Physical Science (teaching) (PPST) |  |  |  | • |  |  |  |  |  |
| Physics (PHYS) |  |  | $\cdot$ |  |  |  |  |  |  |
| Physics (PHYP) |  |  | • | • |  |  |  |  |  |
| Electronics (PHYE; ELTR) |  |  | • |  |  |  |  |  |  |
| Physics (teaching) (PHST) | • |  |  |  |  |  |  |  |  |
| Professional Studies: Aviation Maintenance <br> Management Option3 (PSAM) |  |  |  |  |  |  |  |  |  |

## Notes:

1.Effective fall semester 2007, the Clinical Laboratory Science program (page 80) replaced the Medical Technology program (MEDT). Students currently majoring in MEDT will be able to complete the program and graduate with a BS major in Medical Technology.
2. The state of Minnesota no longer issues teaching licenses for Bachelor of Science minors.
3.The Aviation Maintenance Management program is offered as a Professional Studies major in the College of Liberal Arts; however, courses are taught by the Physics Department. See page 194 for the program description.

## ACCOUNTING

Somsen Hall，Room 323A（507－457－5860）
Frederic Ibrke（Chairperson）

## FACULTY

J．Lawrence Bergin，Professor；BS，MBA，Northeastern University， 1981 －
James F．Hurley，Associate Professor；BS，MA，PhD，University of Nebraska； 1983 －
Frederic Ihrke，Professor；BS，Bemidji State University；MBT，University of Minnesota－Twin Cities；JD，William Mitchell College of Law；Certified Public Accountant（CPA）Minnesota； 1981 －
Gloria McVay，Professor；BS，MBA，Minnesota State University－Mankato；PhD，University of Kentucky； 2000 －
John D．Morgan，Professor；BA，University of Iowa；MS，Arizona State University；PhD，University of Nebraska，Lincoln；Certified Public Accountant（CPA）； Certified Management Accountant（CMA）； 2006 －
William Ortega，Professor；BBA，University of Iowa；MBA，Indiana University；PhD，Florida State University；Certified Fraud Examiner（CFE）；Certified Management Accountant（CMA）； 2003 －
Larry Sallee，Professor；BS，University of Wisconsin－Superior；MBA，University of Wisconsin－La Crosse；DBA，U．S．International University；Certified Public Accountant（CPA）；Certified Management Accountant（CMA）； 1985 －
Joann Segovia，Associate Professor；BS，Wayne State University；MBA，Creighton University；PhD，Texas Tech University；Certified Public Accountant（CPA）； 2009 －

## PURPOSE

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

## COLLEGE OF BUSINESS ADMISSIONS POLICY

Admission to the College of Business（COB）for College of Business BS majors and minors is required before students may enroll in 300－and 400－level classes．$\dagger$ Students must meet the following specific requirements：
1． 30 or more earned credits at the time of application．
2．Cumulative GPA of 2.5 ．
3．Completion of the following courses with a minimum grade of＂ C ＂：

| ACCT 211 | CMST 191 | ECON 201 |
| :--- | :--- | :--- |
| ECON 222 or STAT 210 $\ddagger$ | ENG111 | MATH 110 or above $\ddagger$ |

$\dagger$ Non－College of Business majors and minors must have junior status and instructor＇s permission to take COB 300－and 400－level courses．
$\ddagger$ COB minors with Non－COB major：Completion of math and statistics courses required by their major or，if none are required，these students should take any college－level math and statistics courses．

## 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 23．Specific requirements for accounting majors／minors are as follows：
1．Complete all coursework and satisfy all other WSU requirements for a BS 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 BS major－Accounting．
4．Earn at least 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．

## 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．

## WSU－ROCHESTER

The Accounting major is available through the Path to Purple Program at WSU－Rochester．See page 35 for the articulation of this program．

## BS MAJOR－ACCOUNTING（ACCT） <br> 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）
F－ 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．）
时 ECON 222 Statistics for Business and Economics（3）
㫬 ECON 322 Intermediate Statistics for Business and Economics（3） BUSA 291 Legal Environment（3）

测＝Oral Flag $\quad$ 阿＝Math／Critical Analysis Flag $\quad$ B Writing Flag

BUSA 311 Business Law II (3)
MIS 362 Management Informational Systems (3)
ह MGMT 325 Organizational Dynamics (3)
m MGMT 495 Strategic Management (3)
MGMT 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:
々 ECON 303 Intermediate Macroeconomics (3)
B ECON 304 Money and Banking (3)
QT FIN 335 Forecasting Methods (3)
FIN 421 Institutional Investment and Financial Markets (3)
\& MGMT 317 Management of Human Resources (3)

## BS 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)

## ELECTVES (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.)
An in-depth review and expansion of bookkeeping in a manual accounting system. The course assumes the student has a strong background in basic financial accounting. The course also includes hands-on experience with accounting software, Excel, and Access. Working with a leading integrative computerized accounting software package is a main focus of the course. Prerequisites: ACCT 211 and ACCT 212. (This course is designed to be taken during the same semester that the student is taking ACCT 311.)

## 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 for College of Business majors and minors: Admission to the College of Business, ACCT 212 and ACCT 220 (past or concurrent enrollment in ACCT 220). Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.

## 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. Prerequisites for College of Business majors and minors: Admission to the College of Business and ACCT 311. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.

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. Prerequisites for College of Business majors and minors: Admission to the College of Business and ACCT 311 or ACCT 212 and MIS 362. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.

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. Prerequisites for College of Business majors and minors: Admission to the College of Business and ACCT 311. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.
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. Prerequisites for College of Business majors and minors: Admission to the College of Business and ACCT 212 and ECON 201. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.
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. Prerequisites for College of Business majors and minors: Admission to the College of Business and instructor's permission. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission. Not offered every year.

## 398 - Internship (1-7 S.H.)

Credits are not counted in the accounting major; they are counted as general elective credits. Prerequisites: Admission to the College of Business, department approval, and concurrent enrollment in ACCT 399. P/NC only.

## 399 - Internship Problem (1-3 S.H.)

Prerequisites: Admission to the College of Business, minimum 2.50 GPA, and department approval. The student should have completed most, if not all, 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. Prerequisites for College of Business majors and minors: Admission to the College of Business and ACCT 312. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.

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. Prerequisites for College of Business majors and minors: Admission to the College of Business and ACCT 312. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission. 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. Prerequisites for College of Business majors and minors: Admission to the College of Business and ACCT 312. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission. 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. Prerequisites for College of Business majors and minors: Admission to the College of Business, ACCT 212, and ECON 202. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission. 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. Prerequisites for College of Business majors and minors: Admission to the College of Business and ACCT 421. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission. 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. Prerequisites for College of Business majors and minors: Admission to the College of Business and ACCT 421 or instructor's permission. Prerequisites for non-College of Business majors and minors: Junior standing and 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. Prerequisites for College of Business majors and minors: Admission to the College of Business and ECON 202. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission. 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. Prerequisites for College of Business majors and minors: Admission to the College of Business and ACCT 361. Prerequisites for non-College of Business majors and
minors: Junior standing and instructor's permission. Not offered every year. 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 for College of Business majors and minors: Admission to the College of Business, ACCT 312, ECON 222, and ACCT 330 (past or concurrent enrollment). Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.

## 472 - Advanced Auditing (3 S.H.)

This course is primarily for students planning to take the CPA exam. Additional exposure to fraud detection and audit procedures is provided. Other topics include statistical sampling methods, legal liability, professional and ethical responsibilities, audit reporting topics, and other assurance services offered by CPA firms. Prerequisites for College of Business majors and minors: Admission to the College of Business and ACCT 471. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission. 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: Admission to the College of Business and instructor's permission. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission. Total credits may not exceed 6 S.H.

## ART

Watkins Hall, Room 204 (507-457-5395)
www.winona.edu/art
Anne Scott Plummer (Chairperson)

## FACULTY

Vittorio Colaizzi, Assistant Professor; BA, Mary Washington College, Fredericksburg, VA; MFA, Virginia Commonwealth University, Richmond; PhD, Virginia Commonwealth University; 2007 -
ChunLok Mah, Assistant Professor; BES, St. Cloud State University (Minnesota); BA, Winona State University; MA, MFA, University of WisconsinMilwaukee; 2008-
Seho Park, Professor; BA, Keimyung College (Daegu, Korea); MAT, Whitworth College (Spokane, WA); MFA, PhD, University of Minnesota-Twin Cities; 1988 -
Anne Scott Plummer, Professor; BFA, Rhode Island School of Design (Providence); MFA, Claremont Graduate University (California); 1990 -
Don L. Schmidlapp, Professor; BFA, University of Kansas; MFA, 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 studio and art history courses, art majors build cognitive skills while engaging in the inherently creative activities of the art process. Majors acquire interrelated skills in visual perception, creative problem-solving, and critical thinking, all of which complement the objectives of a liberal arts education. Majors and minors study the history of art, focusing on human achievements of the past and present as well as the various criteria by which they are evaluated. Studio majors develop expertise in specific media areas such as painting, drawing, sculpture, ceramics, or printmaking. Graphic designers use their laptop computers and graphic design software for print and web-based visual 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 year, students complete the required series of foundation courses. In subsequent years, studio classes in specialized media offer more intensive experiences, reflecting students' capabilities and interests. Each successive course in a medium 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 a changing series of exhibitions in the Paul Watkins Gallery and the Weber (student) Gallery, and by presentations from visiting artists and guest lecturers. Majors and minors, as well as interested non-majors, are urged to join field trips to art museums and galleries in nearby cities; field trips are organized by faculty and student clubs.

## CAREER OPPORTUNITIES

Grounded in the liberal arts, the art curriculum prepares graduates for 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 in businesses requiring art skills. Graphic design graduates pursue careers in business and in public and nonprofit sectors, developing visual strategies for designing 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, the Handbook includes suggested course registration programs for each of the three art degree programs/options for each semester leading to graduation, course prerequisites, the Mid-Program Portfolio Review, scholarships, and Senior Exhibitions. Students should get a copy of the handbook from 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 this catalog.

The department's advising program is designed to ensure that majors properly fulfill the requirements of their degree programs in addition to other departmental obligations. Therefore, art majors should meet regularly with the advisors assigned to them. Art Studio minors may seek advice from any art faculty member; Art History minors should consult with Dr. Colaizzi.

## 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 an advisor's approval, students are granted electronic permission to register for art classes when their registration "window" opens. Minors meet with an art faculty advisor as described above.

## FIRST-YEAR COHORT GROUP

Each fall semester, a cohort of first-year art majors, including newly declared majors and transfer students, is established in order to accelerate their progress in art. This opportunity is available on a first-come, first-served basis. In the first semester, cohort students register in designated sections of ART 114 (2-D Design); ART 118 (Drawing I); and ART 221 (Art History I) concurrently. In the spring semester, the same group registers in ART 115 (3-D Design); ART 118 (Drawing II); and ART 222 (Art History II).

## ART SCHOLARSHIIPS

The Art Department awards a number of scholarships to majors in all three of its degree programs each year. All majors, including incoming students, are urged to apply. The scholarships include the Ruth Severud Fish, E. L. King, Thomas E. Mauszycki, Floretta Murray, Dorothy and Mo Weber, Max Weber, Winona National Bank, Talent, and Fine Arts awards. Some of these awards require minimum GPAs; the Fish, King, and Murray scholarships are awarded to teaching majors. First-year students, sophomores, juniors, and seniors are eligible for scholarships. Award amounts range from $\$ 400$ to $\$ 1000$, and most are renewable.

The Art Department faculty awards scholarships on the basis of portfolio reviews and academic achievement. 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 23. Specific requirements for Art majors/minors are as follows:

- Bachelor of Arts 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 Bachelor of Science program must maintain a 2.75 overall GPA and a 2.75 GPA in all art education, studio, and art history courses.


## MID-PROGRAM PORTFOLIO REVIEW

After they complete their foundation work and begin their specialized courses, 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 consult the Art Student Handbook with their advisors.

## SENIOR EXHBBITIONS

Capstone exhibitions, required of all Art majors, feature the accomplishments of graduating seniors in all three programs and are held in the Watkins and Weber galleries each year. Several shows are devoted to works of all graduating seniors; the Select Senior exhibitions highlight the efforts of students chosen by the faculty through a competitive process on the basis of superior achievement. Select Senior exhibitions consist of two- or three-person shows, allowing participants to exhibit a larger number of works than in the all-senior shows.

## PASS/NO CREDIT (P/NC) COURSES

Except for internships, 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 are embedded in the student's Art major program. The Art Department offers the following flag courses in the University Studies Program (see "Overview of University Studies Components" on page 18):

FLAG
Oral (m)
ART 444 Senior Seminar (3)
ART 460 Graphic Design Capstone (3)
Math/Critical Analysis (阿)
ART 360 New Media Graphic Design (3)
ART 417 Advanced Painting (3)
ART 418 Advance Drawing II (3)
ART 340 Ceramics II (3)
ART 428 Advanced Sculpture (3)

| Writing (B) |  |
| :---: | :--- |
| ART | 365 |
| ART | Campaign Design (3) |
| ART | Italian Renaissance Art (3) |
| ART | Nineteenth Century Art (3) |
| ART | Early Twentieth Century Art (3) |
| ART 439 | Art Since 1945 (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.

## PURPOSE

The Studio Art Option offers training in the fine arts-painting, sculpture, ceramics, printmaking, and drawing-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) |
| B 439 | Art Since 1945 (3) |
| m4 | 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.):
B 435 Italian Renaissance (3) OR
B2 437 Nineteenth Century Art (3) OR
ß 438 Early Twentieth Century Art (3)
440 Realism in Modern and Contemporary 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 $200-\mathrm{level}$ and in addition to the required ART 439 and the chosen upper-division art history elective (6 S.H.)

## STUDIO ELECTVES (9-15 S.H.)

Two-course sequences in two areas of concentration as follows (12 S.H.):
Painting: $\quad 317$ (3) and 417 (3) 觙 OR
Drawing: $\quad 318$ (3) and 418 (3) Po OR
Ceramics: $\quad 320$ (3) and 340 (3) Pu OR
Sculpture: $\quad 328$ (3) and 428 (3) Po OR
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. With the permission of their advisor, majors also have the option of choosing a single four-course sequence ( $12 \mathrm{~S} . \mathrm{H}$.) in a single medium.

## BA 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 Wacom tablet and professional design software, gaining experience in print and new media design. The capstone experience includes required participation in the Senior Graphic Design Exhibition and a 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.

Application for formal admission, which takes place every semester, requires that students:

1. Complete ART 114 (2-D Design) and ART 118 (Drawing I) the semester prior to application.
2. Demonstrate software competency.
3. Complete an application form.
4. Submit a portfolio of drawings, 2-D design, and digital work along with the application form. Because seats are limited, admission to the program is competitive based on preparation, portfolio, and academic record. Students who are not admitted may reapply.

REQUIRED COURSES (66 S.H.)
Art (36 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 Print Graphic Design (3)
ART 265 Packaging Graphic Design (3)
po ART 360 New Media Graphic Design (3)
B ART 365 Campaign Design (3)
\& ART 439 Art Since 1945 (3)
m ART 460 Graphic Design Capstone (3)
Art Studio Elective (3 S.H.)
ART 217 Painting I (3) OR
ART 330 Printmaking I (3)
Mass Communication (9 S.H.)
MCOM 210 Visual Communication (3)
MCOM 215 Photocommunication (3)
MCOM 260 Advertising (3)
Marketing (6 S.H.)
MKTG 300 Principles of Marketing (3) (no prerequisites) AND one
of the following:
MKTG 325 Professional Selling (3) OR
MKTG 329 Sports Marketing (3) OR
MKTG 333 Topics in Marketing (3) OR
MKTG 336 Services Marketing (3) OR
MKTG 341 E-Commerce (3)
Communication Studies (3 S.H.)
CMST 266 Professional Communication Skills (3)

## Computer Science (3 S.H.)

CS 116 Web Technology (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)

## ELECTIVE (3 S.H.)

ENG 120 Introduction to Literature (3) OR
ENG 211 Writing in Communities (3) OR
ENG 221 Topics World Literature (3) OR
ENG 222 Introduction to Creative Writing

## RECOMMENDED COURSE

MCOM 175 Computer Applications OR
Atomic Learning preparation for Software Competency Exam

## BS MAJOR - ART (TEACHING) (ART)

128 total S.H. No Minor Required
Note: When this catalog went to print, all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact your program advisor and refer to the Teacher Education Addendum (www. winona.edu/education/advising) for the latest information about program requirements whether you are (1) applying to a teacher education program, (2) currently enrolled in a teacher education program, or (3) expecting to graduate with a teacher education degree in 2010 or 2011.

## 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.

## OVERVIEW OF REQUIREMENTS FOR THE BS MAJOR - ART TEACHING:

- University Studies Requirements: 48 S.H.
- Art and Art Education Requirements: 51 S.H.
- Professional Education Sequence: 25 S.H. (in addition to 13 S.H. included in the University Studies Requirements)
- University Electives: 4 S.H.

$$
\text { M = Oral Flag 阿 = Math/Critical Analysis Flag } \quad \text { B = Writing Flag }
$$

## REQUIRED UNIVERSITY STUDIES COURSES（48 S．H．）

Note：This requirement includes 13 S．H．of Professional Education Sequence courses，which also satisfy University Studies requirements． These courses are identified with an asterisk（＊）below．
Basic Skills（13 S．H．）
ENG 111 （4），CMST 191 （3），and MATH 100 （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 EFRT 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）and Global or Multicultural Perspectives（3）fulfilled by EFRT 308＊（3）；Contemporary Citizenship or Democratic Institutions（3）

## PROFESSIONAL EDUCATION SEQUENCE（25 S．H．）

See Note above regarding 13 S．H．of required courses that satisfy both the Professional Education Sequence and University Studies requirements．

Note：Teaching majors must take all courses in the Professional Education Sequence in addition to courses in the content area．Professional Education Sequence courses require formal admission to the teacher education program． For more information about teacher education admission requirements，see ＂Teacher Education Programs＂on page 214.

Po EFRT 312 Instructional Planning and Assessment：Secondary（3）
EDUC 429 Secondary Reading and Teaching Strategies（4）
B－EFRT 449 Middle Level Philosophy，Organization and Planning（3）
ط EFRT 459 The Professional Educator（3）
垉 EDST 460 Student Teaching－Elementary Education with Early Childhood Emphasis（12）

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REQUIRED ART AND ART EDUCATION COURSES（45 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）
300 Elementary Art Education（3）
320 Ceramics I（3）
402 Psychology of Art and Art Education（3）
410 Secondary Art Education（3）
412 Multimedia Crafts for the Classroom（3）
B 439 Art Since 1945 （3）
m 444 Senior Seminar（3）
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## ART ELECTIVES（6 S．H．）

Choose one of the following two－course sequences（6 S．H．）：
Painting： 317 （3）and 417 （3）解 OR
Drawing： 318 （3）and 418 （3）Pu OR
Ceramics：$\quad 340$（3）狍 and 340 repeated（3）OR
Sculpture：$\quad 328$（3）and 428 （3）牱 OR
Printmaking： 330 （3）and 430 （3）

## UNVERSITY ELECTVES（4 S．H．）

## BA 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 EEECTVES（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．

## BA MINOR－HISTORY OF ART（ARTH）

24 S．H．
The History of Art minor emphasizes the major art trends and movements of the modern and contemporary periods in 19th and 20th century Europe and America in addition to various critical methods of approaching and evaluating art．Courses explore the visual culture that helped shape our contemporary world；they also acquaint students with the research skills of the art historian，both in terms of written material and the critical visual tools required to decipher images and objects．

## REQUIRED ART COURSES（12 S．H．）

221 Art History I（3）
222 Art History II（3）
224 American Art（3）
B 439 Art Since 1945 （3）

## ELECTIVES（12 S．H．）

At least two of the following three courses（6－9 S．H．）
B ART 435 Italian Renaissance Art（3）
B ART 437 Nineteenth Century Art（3）
bo ART 438 Early Twentieth Century Art（3）
ART 440 Realism in Modern and Contemporary Art（3）
The remaining elective（s）are to be chosen from 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 recommended or cognate courses：
ENG 223 Classical Mythology（3）
ENG 224 The Bible as Literature（3）
ENG 225 Topics in Literature（3）
ENG 304 Victorian and post－Civil War Literature（3）
ENG 305 Modernism and Beyond（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 $150 \quad$ United States History to 1865 （3）
＊HIST 151 United States History since 1865 （3）
＊PHIL 110 Critical Thinking（3）
PHIL 120 Introductory Philosophy（3）
PHIL 270 Philosophy of Religion（3）
PHIL 280 Philosophy of Art（3）
PHIL 301 Early Modern Philosophy（3）
PHIL 302 Contemporary Philosophy（3）

## COURSE DESCRIPTIONS－ART

## 109 －Introduction to $\operatorname{Art}$（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 as well as issues of 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．

## 115 －3－D Design（3 S．H．）

Foundation experience in manipulating materials in three－dimensional space and time．Broad range of basic materials，tools，and techniques used to solve problems in creating objects and spaces．

## 117 －Drawing for the Sciences（3 S．H．）

An interdisciplinary course combining the art of drawing with science content．Students will acquire basic skills in drawing aimed at scientific study，preparing them for visual investigation in the classroom，the laboratory，and the field．This class develops visual perception，aesthetic judgment，and sound studio practice．Recommended for non－art majors．

## 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 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 into the modern age. The survey concludes with developments of the mid-20th century. 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 Baroque era to the present. Social and cultural environments for women are considered, as well as individual artists' contributions to the history of art. Core disciplinary course for women's and gender studies minor. Grade only.

260 - Print Graphic Design (3 S.H.)
Utilizing creative thinking and sound design skills in a digital format, students will focus on two- dimensional print-based projects. Prerequisites: ART 114, ART 218, CS 116, and admission to the program. Grade only.

## 265 - Packaging Graphic Design (3 S.H.)

Utilizing creative thinking and sound design skills in a digital format, students will complete design projects in a three-dimensional realm, including packaging and interactive objects. Prerequisites: ART 114, ART 115, ART 218, CS 116, and admission to the program. 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. Prerequisites: Junior or senior standing, ART 109 (strongly recommended). 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.

## 340 - 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. May be repeated up to a maximum of nine credits. Prerequisite: ART 320. Grade only.

360 - New Media Graphic Design (3 S.H.)
Utilizing creative thinking and sound design skills in a digital format, students will complete design projects using new media, including web design. Prerequisites: ART 114, ART 118, CS 116, and admission to the program. Grade only.

365 - Campaign Design (3 S.H.)
Utilizing creative thinking and sound design skills in a digital format, students will complete projects oriented towards a publicity campaign, integrating aspects of 2-D, 3-D, and new media. Prerequisites: ART 260, ART 265, and 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. May be repeated up to a maximum of nine credits. Prerequisite: Junior or senior standing.

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

## 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. May be repeated up to a maximum of nine credits.
Prerequisite: ART 318.
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. May be repeated up to a maximum of nine credits. Prerequisite: ART 328. Grade only.

430 - Printmaking II (3 S.H.)
Advanced printmaking processes, using a variety of techniques. Advanced conceptualization and drawing skills are required. May be repeated up to a maximum of nine credits. Prerequisite: ART 330. Grade only.

433 - Independent Study (1-3 S. H.)
To be arranged with an instructor in studio, art history, or art education. May be repeated up to a maximum of nine credits. Prerequisites: To be determined by the instructor and junior standing. The permission and signature of the instructor and the departmental stamp is required in order to register. Grade only.

435 - Italian Renaissance Art (3 S.H.)
The painting and sculpture of Italy from the late Gothic Era to about 1600.
The course emphasizes the major school and some of the secondary schools, together with the innovations and achievements of individual masters. 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 - Art Since 1945 (3 S.H.)

Readings and discussions concerning the critical developments in contemporary art from 1945 to the present, including the shift from modernism to postmodernism. By focusing on individual artists, movements, critics, and theorists, students will become conversant in the debates and methods that led to the art of the present. A research paper is required. Prerequisite: ART 222. Grade only.

## 440 - Realism in Modern and Contemporary Art (3 S.H.)

An examination of artists who chose to paint or sculpt naturalistic, recognizable images during a time when non-representation had become established and, in some cases, dominant. Topics will include the socially radical realism of Gustave Courbet, the classicizing impulse of Pablo Picasso, the popularizing art of Norman Rockwell, and the social and gender critique of Jenny Saville. Classes will consist of primary source readings, critical discussions, independent research, a paper, a presentation, and when possible, viewing of actual works of art. Prerequisite: ART 222. Grade only.
444 - Senior Art Seminar (3 S.H.)
Students present their concurrent studio projects for critique and also deliver PowerPoint 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. Prerequisites: Senior standing and BA or BS major.
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.

## ARTS ADMINISTRATION

Performing Arts Center, Room 209 (507-457-2842)
http://www.winona.edu/artsadmin
Gregory Neidhart (Director)

## FACULTY

Gregory Neidhart, Assistant Professor, Art; BS, Ball State University, MFA, University of Arizona; MA, University of Wisconsin-Madison; 2006-

## PURPOSE

As arts organizations become increasingly complex, they will demand knowledgeable, skilled individuals who have an aesthetic sensibility, business acumen, and a keen understanding of current issues and trends relevant to an organization's health, prosperity and, in some cases, survival. Designed primarily, but not exclusively, for students in the performing and visual arts, the minor in Arts Administration will complement students' training as artists, teachers and practitioners, and help lay the foundation for their future participation in arts organizations either as leaders or as participants and supporters.

The Arts Administration minor will:

- Provide skilled individuals for the expanding arts/nonprofit sector whose increasingly complex institutions demand higher levels of sophistication and knowledge from their administrators.
- Promote the interdisciplinary nature of the arts and sciences.
- Encourage students to learn as they work and work as they learn. Through experiential learning opportunities, students will combine academic coursework and hands-on, relevant extracurricular opportunities on campus and in the community to become qualified to work in such areas as marketing, fundraising, operations, and general arts management.
- Help students build relevant, transferable management and leadership skills for social service agencies, educational institutions, commercial arts industries, and other for-profit and nonprofit organizations.
- Expose students to issues of arts policy, cultural management, emerging technologies, and leadership and organizational development.


## BA MINOR - ARTS ADMINISTRATION (AAD) <br> 24-27 S.H.

PASS/NO CREDIT (P/NC) COURSES
Students must take all courses in the minor on a grade-only basis.

CORE COURSES - AAD (9 S.H.)
301 The Arts Organization (3)
302 Introduction to Arts Administration (3)
303 Independent Study (3)

REQUIRED COURSES (15-18 S.H.)

## College of Liberal Arts Courses

Students majoring or minoring in one of the visual or performing arts (Art, Music, Theatre and Dance) will successfully complete one introductory performing or visual arts course, in a discipline other than their major or minor, from the list below. Students not majoring or minoring in one of the visual or performing arts will successfully complete two courses in the visual or performing arts, but in separate disciplines. Substitution will be permitted only with permission of the Arts Administration Program Director.

| ART | 109 | Introduction to Art (3) |
| :--- | :--- | :--- |
| ART | 110 | Experiencing Art (3) |
| MUS | 109 | Introduction to Music (3) |
| MUS | 120 | Introduction to Music Theory (3) |
| THAD | 111 | Theatre Appreciation (3) |
| THAD | 115 | Dance Appreciation (3) |

## College of Business Courses

ACCT 211 Financial Accounting Principles (3)
BUSA 291 Legal Environment of Business (3)
MKTG 300 Principles of Marketing (3)
MGMT 315 Principles of Management (3) OR
凤 MGMT 325 Organizational Dynamics (3)

## COURSE DESCRIPTIONS - AAD

## 301 - The Arts Organization (3 S.H.)

This seminar course will present an overview of arts and other nonprofit organizations in the United States. It will also explore current issues and emerging trends in technology, arts and cultural policy, intellectual property rights, career development in the arts sector, and the challenges facing administrative leaders of arts and cultural organizations. A significant component of this course includes field trips and in-class visits by professionals from various arts disciplines. Note: Students pursuing a minor in Arts Administration typically complete AAD 301 prior to enrolling in AAD 302.

302 - Introduction to Arts Administration (3 S.H.)
This course will introduce students to the practical skills required for the successful management of arts organizations. Topics will include budgeting, marketing/publicity, fundraising, audience development, analysis of financial statements, contracts, board governance, and issues associated with the founding of a nonprofit organization. Note: This course is open to all students; however, students pursuing a minor in Arts Administration typically complete AAD 301 prior to enrolling in AAD 302.

## 303 - Independent Study (3 S.H.)

During this experiential learning course, students will be assigned to work with a local arts organization or on a project in support of one of WSU's visual or performing arts departments. Applying knowledge gained from their coursework, students will receive hands-on experience in such areas as marketing/publicity, budgeting, fundraising, audience development and others areas critical to leaders of arts organizations. Prerequisite: Successful completion of AAD 301 and AAD 302.

## BIOLOGY

Pasteur Hall, Room 220, (507) 457-5270
http://www.winona.edu/biology/
Edward Thompson (Chairperson)
Michael Delong Director, Large River Studies Center
Judith A. Loewen Director, Clinical Laboratory Science
Frances Ragsdale Director, Medical Technology
Edward Thompson Director, Cytotechnology

## FACULTY

Kimberly M. Bates, Professor; BS, University of Massachusetts-Amherst; MS, PhD, University of Missouri-Columbia; 1997 -
Steven Berg, Professor; BS, Pacific Lutheran University; PhD, Purdue University; 1986 -
Bruno Borsari, Assistant Professor; DAgSci, University of Bologna (Italy); PhD, University of New Orleans; 2005 -
Emmanuel Brako, Professor; BVM, University of Nairobi; BS, Tuskegee University; MS, PhD, Louisiana State University and A \& M College; 1989 -
Michael D. Delong, Professor; BS, University of Southern Mississippi; MS, Memphis State University (TN); PhD, University of Idaho-Moscow; 1992 -
Kimberly J. Evenson, Professor; BS, MS, North Dakota State University, Fargo; PhD, University of Minnesota-Twin Cities; 1995 -
Mark Garbrecht, Assistant Professor; BS, University of Wisconsin-Eau Claire; PhD, University of Iowa College of Medicine; 2008 -
Judith A. Loewen, Assistant Professor; BS, University of Minnesota; MS, University of Wisconsin-Eau Claire; PhD, Mayo Graduate School of Medicine; 2008 -
Neal Mundahl, Professor; BA, Winona State University; MS, Michigan Technological University; PhD, Miami University (Ohio); 1989 -
Frances Ragsdale, Professor; BS, Eastern Oregon State College; MS, Southeastern Louisiana University; PhD, University of Idaho, 1993 -
Lawrence Reuter, Professor; BA, Saint Mary's College of Minnesota; PhD, Princeton University; 1979 -
Robin K. Richardson, Professor; BS, Michigan State University; MS, Central Michigan University, Mt. Pleasant; PhD, University of Oklahoma, Norman; 1992 -
Scott P. Segal, Assistant Professor; BS, University of Wisconsin; PhD, Northwestern University; 2006 -
Edward Thompson, Professor; BA, Macalester College, St. Paul; PhD, Medical College of Wisconsin, Milwaukee; 1992 -
Edward (Ted) Wilson, Associate Professor; BA, Luther College, Decorah, IA; MS, PhD, 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 BS degree and allows for many career opportunities. Many graduates pursue additional education in disciplines such as biology, biochemistry, medicine, physical therapy, dentistry, and veterinary medicine. Other graduates use the BS degree in biology to gain employment in the rapidly expanding field of health care and research or in 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 clinical laboratory science, medical technology, and cytotechnology. (See separate program listings under "Clinical Laboratory Science" (page 80), and "Cytotechnology" (page 94). Students interested in the clinical laboratory science and cytotechnology majors should contact the appropriate program director as soon as possible after arriving on campus.

## Minor

For students majoring in other fields, the Biology Department offers a minor ( $38 \mathrm{~S} . \mathrm{H}$.), 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-Pharmacy
Pre-Physical Therapy
Pre-Physician Assistant
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://www.winona.edu/biology/).

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

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 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.

To qualify for Honors in Biology, a student must:

1. Be a biology major (any option).
2. Complete 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.
6. Complete the Honors in Biology seminar.
7. Present their research at an extramural research meeting or symposium.
8. 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 (im) |  |  |
| :---: | :--- | :--- |
| 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) |


| Writing (ß) |  |  |
| :---: | :--- | :--- |
| 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) |
| BIOL | 499 | Capstone Project (1-3) |

Math/Critical Analysis ( FJ )
BIOL 310 Genetics (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.

## BS 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)
尼 308 Cell Biology (3)

```
时 310 Genetics (3)
*4.307 Cell Biology Laboratory (1) OR
    311 Genetics 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 (8 S.H.)
BIOL 201 Human Anatomy (4)
B. BIOL 323 General Physiology (4)

## ALLIED HEALTH OPTION ELECTIVES（18 S．H．）

Courses totaling 17 semester hours to be chosen from the biology electives listed on page 60.

## BIOLOGY CAPSTONE REQUIREMENT（3 S．H．）

巴 BIOL 499 Capstone Project（1－3）
OTHER REQUIRED COURSES（ 26 S．H．）
Chemistry（12 S．H．）
CHEM＊212，＊213 Principles of Chemistry I，II（8）
CHEM 340 Organic Chemistry Survey（4）
Note：Principles of Organic Chemistry I，II（CHEM 350 and CHEM
351）may be substituted for CHEM 340．Both CHEM 350 and CHEM 351 must be taken．

## Mathematics（6－8 S．H．）

MATH 150， 155 Modeling Using Precalculus and Statistics（3）， Modeling Using Calculus（3）OR

MATH 120， 140 Precalculus（4），Applied Calculus（3）OR
MATH 120， 160 Precalculus（4），Calculus I（4）
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 $(201,202)$ ．

BS MAJOR BIOLOGY－CELL AND MOLECULAR OPTION（BICM）
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）
B 308 Cell Biology（3）

边 307 Cell Biology Laboratory（1）OR
311 Genetics 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.):
m BIOL 309 Developmental Biology (3)
    BIOL 393 Animal Cell Culture (4)
    BIOL 394 Plant Tissue Culture, Principles and Application (4)
m BIOL 409 General Microbiology (4)
@ BIOL 431 Molecular Biology Lab (4)
B BIOL 445 Immunology (3)
```


## CELI AND MOLECULAR OPTION ELECTVES（9－10 S．H．）

Courses totaling 9－10 semester hours to be chosen from the biology electives listed on page 60.

## BIOLOGY CAPSTONE REQUIREMENT（3 S．H．）

B BIOL 499 Capstone Project（1－3）
OTHER REQUIRED COURSES（26 S．H．）

## Chemistry（12 S．H．）

CHEM＊212，＊213 Principles of Chemistry I，II（8）
CHEM 340 Organic Chemistry Survey（4）
Note：Principles of Organic Chemistry I，II（CHEM 350 and CHEM
351）may be substituted for CHEM 340．Both CHEM 350 and CHEM 351 must be taken．

## Mathematics（4－6 S．H．）

MATH 150 Modeling Using Precalculus and Statistics（3）
MATH 155 Modeling Using Calculus（3）
Note：MATH 160 （Calculus 4 S．H．）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）．

BS 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)
解 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）
m 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 60．The required and elective ecology option courses must total 24 S．H．

BIOLOGY CAPSTONE REQUIREMENT（3 S．H．）
々 BIOL 499 Capstone Project（1－3）
OTHER REQUIRED COURSES（26 S．H．）

## Chemistry（12 S．H．）

CHEM＊212，＊213 Principles of Chemistry I，II（8）
CHEM 340 Organic Chemistry Survey（4）
Note：Principles of Organic Chemistry I，II（CHEM 350 and CHEM
351）may be substituted for CHEM 340．Both CHEM 350 and CHEM 351 must be taken．

## Mathematics（6 S．H．）

MATH 150 Modeling Using Precalculus and Statistics（3）
MATH 155 Modeling Using Calculus（3）
Note：Students are encouraged to take STAT 305 （Biometry）．If both are taken，Math 160 and 165 （Calculus I，II）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 $(201,202)$ ．

## BS MAJOR BIOLOGY－ENVIRONMENTAL SCIENCE OPTION （BIES） <br> 118 S．H．（No Minor Required）

Alliance with environmental science options of other departments is given under＂Environmental Science＂on page 106.

## 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)
    3 1 3 \text { General Ecology Laboratory (1)}
&-308 Cell Biology (3)
昨 }310\mathrm{ Genetics (3)
    Note: BIOL }241\mathrm{ and }242\mathrm{ should be taken prior to BIOL 312, 313, }30
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)
m 315 Environmental Biology (3)
    495 Seminar - Environmental Science (1)
```

ENVIRONMENTAL SCIENCE OPTION ELECTVES - BIOL (7 S.H.)
Courses totaling 7 S.H. 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)
R 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.)
ß BIOL 499 Capstone Project (1-3)
OTHER REQUIRED COURSES (48-49 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: Principles of Organic Chemistry I, II (CHEM 350 and CHEM

351) may be substituted for CHEM 340. Both CHEM 350 and CHEM
351 must be taken.
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 Modeling Using Calculus (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 and II (*221, *222) (both must be taken) may
be substituted for General Physics I and II $(201,202)$.
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 415 Advanced Geomorphology (4)
GEOS 325 Environmental Geoscience (3)
GEOS 420 Applied Hydrogeology (4)
BS MAJOR - LIFE SCIENCE (TEACHING) (BLST)
128 S.H. (No Minor Required)

Note: When this catalog went to print, all Winona State University
teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact your program advisor and refer to the Teacher Education Addendum (www.winona.edu/education/advising) for the latest information about program requirements whether you are (1) applying to a teacher education program, (2) currently enrolled in a teacher education program, or (3) expecting to graduate with a teacher education degree in 2010 or 2011.
Students majoring in Biology Life Science must have both a 2.75 overall GPA and 2.50 GPA or higher in the major. For more information about teacher education admission requirements, see "Teacher Education Programs" on page 214.

## 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)
ß- 308 Cell Biology (3)
时 310 Genetics (3)
m 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.)

M BIOL 315 Environmental Biology (3)
bo BIOL 499 Capstone Project (1-3) (This course also satisfies the biology capstone requirement.)

## LIFE SCIENCE ELECTIVES - BIOL (9 S.H.)

At least 9 S.H. 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 Survey (4)
Note: Principles of Organic Chemistry I, II (CHEM 350 and CHEM 351) may be substituted for CHEM 340. Both CHEM 350 and CHEM 351 must be taken.

## EDUCATION (38 S.H.)

## Notes:

1. Teaching majors must take all courses in the Professional Education Sequence in addition to courses in the content area. Professional Education Sequence courses require formal admission to the teacher education program. For more information about teacher education admission requirements, see "Teacher Education Programs" on page 214.
2. When this catalog went to print, all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact your program advisor and refer to the Teacher Education Addendum (www.winona.edu/education/advising) for the latest information
about program requirements whether you are（1）applying to a teacher education program，（2）currently enrolled in a teacher education program，or（3）expecting to graduate with a teacher education degree in 2010 or 2011.
＊EFRT 305 Human Development and Learning：Secondary（4）
EFRT 308 Human Relations and Student Diversity（3）
㽖 EFRT 312 Instructional Planning Assessment：Secondary（3）
EDUC 429 Secondary Reading and Teaching Strategies（4）
R EFRT 449 Middle Level Philosophy，Organization and Interdisciplinary Planning（3）
巴 EFRT 459 The Professional Educator（3）
M EDST 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 Modeling Using Calculus（3）OR
MATH 160 Calculus

## 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）．

## BA 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 Survey（4）

Note：Principles of Organic Chemistry I，II（CHEM 350 and CHEM 351）may be substituted for CHEM 340．Both CHEM 350 and CHEM 351 must be taken．

## ELECTIVES（15 S．H．）

Any biology course（required or elective）that is part of the BS Biology major（any option）

## BIOLOGY ELECTVES

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）
m 307 Cell Biology Laboratory（1）
M 309 Developmental Biology（3）
311 Genetics Laboratory（1）
313 General Ecology Laboratory（1）
314 Current Issues in Plant Biology（4）
m 315 Environmental Biology（4）
318 Invertebrate Zoology（4）
319 Vertebrate Biology（4）
320 Ornithology（4）
® 323 General Physiology（4）
324 General Physiology Laboratory（2）
327 Developmental Biology Laboratory（1）
330 Biomedical Ethics（3）
335 Plant Ecology（4）
340 Virology（3）
350 Plant Taxonomy（4）

351 Agroecology（3）
360 Entomology（4）
365 Cultures \＆Ecology of East Africa－Tanzania（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）
m 409 General Microbiology（4）
410 Membrane Biology（4）
411 Protein Structure and Function（1）
ß 415 Ecology of Large Rivers（4）
420 Limnology（4）
m 423 Ecosystem Ecology（3）
424 Biogeography（3）
425 Animal Behavior（3）
427 Advanced Topics in Biology（1－4）
430 Molecular Biology（3）
B 431 Molecular Biology Laboratory（4）
441 Comparative Vertebrate Physiology（3）
443 Urinalysis（1）
444 Immunochemistry and Hematology（2）
B． 445 Immunology（3）
446 Immunology Laboratory（1）
360 General Parasitology（3）
m 462 Parasitology（4）
470 Histology（4）
490 Issues in Biology（3）
492 Good Reads in Biology（3）
495 Seminar in Biology（1）
496 Undergraduate Thesis（1）
B． 499 Capstone Project（1－3）
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
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．

## 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，developnent，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．

171，172， 173 －Medical Terminology A，B，and C（1 S．H．each）
Scientific terminology as it applies to human and veterinary medicine， dentistry，and related professions．Topics include prefixes and suffixes， numbers，amounts，colors，and positions as well as all systems of the human body．Independent study using CDs and study guide．Letter grade only．
Each course is 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 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 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, microscopy, 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. Prerequisite: 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 or instructor's permission. 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 - Current Issues in Plant Biology (4 S.H.)
This course reviews a broad range of current topics/issues in plant biology by way of discussion and laboratory. Some of the topics are controversial and will intersect with social, ethical, and political aspects of biology (i.e., biotechnology, ethnobotany). Other topics will introduce students to current methodologies (i.e., forensic botany, genetic engineering, phytoremediation) and unorthodox ways of thinking about plants (i.e., consider whether plants have intelligence, plant sex and sex change, tales from the underground, etc.). Lecture and laboratory. Prerequisites: BIOL 241 and BIOL 242. Offered alternate years.

315 - Environmental Biology (3 S.H.)
A study of human impacts on the natural environment. Modern conservation measures, pollution prevention, and habitat management procedures are treated in depth. Lecture, laboratory, and field trips. Prerequisite: BIOL 308, BIOL 310, and BIOL 312 or instructor's permission. 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 (4 S.H.)
Lectures, demonstrations, and discussions are designed to provide the basis for understanding physiological mechanisms and the functional organization of body systems. This is an examination of how the human body works. Lecture only. Prerequisites: BIOL 201, BIOL 241, BIOL 242, CHEM 212, and CHEM 213. Offered yearly.

## 324 - General Physiology Laboratory (2 S.H.)

An extensive laboratory course intended to introduce students to the classic physiology exercises as well as new techniques used to address questions about how a body functions. Exercise topics may include muscle physiology, neurophysiology, ECG, blood pressure, sensory investigations, respiratory functions, and diving response. Prerequisite: Concurrent or previous enrollment in BIOL 323. Offered yearly.

## 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.

## 330 - Biomedical Ethics (3 S.H.)

Ethical issues in health care such as abortion, termination of treatment, euthanasia, truth-telling and confidentiality, medical experimentation and informed consent, transplant surgery, artificial insemination, surrogate pregnancy, or the allocation of medical resources. Lecture only. Offered yearly.
333 - Clinical Laboratory Techniques (3 S.H.)
Introduction to basic and specialized clinical laboratory techniques. These include formulating chemical solutions and compounds, phlebotomy, collection and processing of clinical specimens, aseptic techniques and culturing of organisms, and the safe handling and disposal of laboratory materials. Includes off-site visits to observe hospital and clinical laboratories. Prerequisites: CHEM 212 and CHEM 213. 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 yearly.

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.
351 - Agroecology (3 S.H.)
An introduction to the theory of agroecology and the current practices of sustainable agriculture. The components of farm management will be studied within the context of a complex ecosystem. Lecture, field studies, and laboratory will integrate concepts of agroecology with actual practices in sustainable agriculture. Prerequisites: BIOL 310, BIOL 312, and CHEM 212. 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.

365 - The Cultures and Ecology of East Africa - Tanzania (4 S.H.) This is a four-week specialized travel study course, which deals with the cultural and natural resources of east Africa, specifically Tanzania. An immersive classroom experience is followed by a three-week study tour in Tanzania. Specific attention is paid to the cultural and natural resources of the area. Students visit traditional villages, schools, hospitals, national parks and game reserves, and cultural sites. Prerequisites: Sophomore standing or higher and instructor's permission. Grade only. Offered summers of 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 eukaryotic cell culture. Techniques include aseptic technique, in vitro cell cultivation, cell enumeration, viability determination, hybridoma technique for monoclonal antibody production, cryopreservation, and cell cloning. Lecture and laboratory. Prerequisite: BIOL 308. 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. Laboratory and discussions. 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. Lecture only. 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. Prerequisites: BIOL 430 or concurrent enrollment; instructor's permission. Offered yearly.

440 - Clinical Physiology (3 S.H.)
This course will review applied theory and practice in clinical chemistry and human physiology. This will be a review of basic and advanced information in clinical laboratory chemistry and how it relates to patient health and care. Laboratory and discussions. Prerequisites: BIOL 323 and admission into the Clinical Laboratory Science program. 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.

## 442 - Clinical Laboratory Management (1 S.H.)

A comprehensive presentation of information relating to management skills within the clinical laboratory, including organizational structure, job descriptions, personnel and financial management, revenue generation, measurement standards, and compliance with governmental regulations. Grade only. Prerequisite: Admission into the Clinical Laboratory Science program. Offered yearly.

## 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. Prerequisites: BIOL 308, BIOL 310, and CHEM 340. Letter grade only. Offered yearly.

$$
\text { M = Oral Flag 阿 = Math/Critical Analysis Flag } \quad \text { B = Writing Flag }
$$

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. Prerequisite: Medical technology or clinical laboratory science majors with senior standing and instructor's permission. Letter grade only. 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. Prerequisite: Medical technology or clinical laboratory science majors with senior standing and instructor's permission. Letter grade only. Offered yearly.

454-Medical Technology V (5 S.H.)
Laboratory medicine. Content to be determined by the Director of Laboratories, Educational Coordinator, and staff of the affiliated hospital. Prerequisites: Medical technology or clinical laboratory science major with senior standing and instructor's permission. Letter grade only. Offered yearly.

460-General Parasitology (3 S.H.)
An introduction to the study of parasites of humans and domestic animals, and the etiology of associated pathologic states. This course is especially intended for students in the medical technology program. Lecture and laboratory. Prerequisites: BIOL 308, BIOL 310, and CHEM 340. Offered yearly.

462 - Parasitology (4 S.H.)
This course will examine medically and veterinary important parasites of the world. Each parasite will be studied thoroughly to include details of taxonomic classification, host spectrum, geographic distribution, morphology, life cycle requirements, pathogenesis, control measures, and public health significance. Lecture and laboratory. Prerequisites: BIOL 308, BIOL 310, and CHEM 340 or 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. Prerequisites: Cytotechnology major with senior standing and instructor's permission. Letter grade only. 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. Prerequisites: Cytotechnology major with senior standing and instructor's permission. Letter grade only. 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 counterarguments 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.

492 - Good Reads in Biology (3 S.H.)
This course is intended for upper-division students of any major who wish to read and formally discuss several books broadly relating to the discipline of the biological sciences but written for a general audience. The book selections will change each time the course is offered depending on popular trends in publishing. Discussions, which will be led by students, are intended to be open, embracing all viewpoints and encouraging all students to express their opinions and feelings. Prerequisites: Junior or 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. Prerequisite: Senior standing or instructor's permission. 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 - Capstone Project (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. May be repeated to a maximum of 3 S.H. Prerequisites: BIOL 308, BIOL 310, BIOL 312, and instructor's permission. Offered each semester.

# BUSINESS ADMINISTRATION 

Somsen Hall, Room 324 (507-457-5170)
http://www.winona.edu/college business/4005.htm
Kathryn J. Ready (Chairperson)
FACULTY
Marzie Astani, Professor, BA, Tehran University, MS, PhD, Iowa State University of Science and Technology, MBA, Central Michigan University; 1987 JoEll W. Bjorke, Professor; BS, St. Cloud State University; JD, William Mitchell College of Law; 1981 -
Shashi Dewan, Professor; BS, Malviya Regional Engineering College; MBA, PhD, Indian Institute of Technology; 1988 -
Edward A. Duplaga, Professor; BS, Bowling Green State University; MBA, PhD, University of Iowa; 2001 -
Baekkyoo (Brian) Joo, Assistant Professor; BA, Sogang University; MA, PhD, University of Minnesota; 2007 -
Kihyun Kim, Assistant Professor; BBA, MBA, Korea University; MA, PhD, University of Nebraska, Lincoln; 2004 -
Diane May, Assistant Professor; BA, Randolph-Macon Women's College; JD, University of San Diego; 2004 -
Patrick Paulson, Professor; BS, MS, Illinois Institute of Technology; JD, Indiana University; 2000 -
Kathryn J. Ready, Professor; BA, MBA, University of Wisconsin-La Crosse; PhD, University of Iowa; 2006 -
Daniel Sauers, Professor; BS, Slippery Rock State University; MBA, PhD, Florida State University; 2002 -
Kimberlee Snyder, Professor; BS, Kansas State University; MBA, PhD, New Mexico State University; 2000 -
Sobail Subhani, Professor; BS, University of Karachi; MBA, PhD, University of Texas, Arlington; 2002 -
Mussie Tessema, Assistant Professor; BA, University of Asmara; MA, Groningen University; MBA, Strayer University; PhD, Tilburg University, Netherlands; 2007 -
Brian P. Winrorw, Assistant Professor; BA, Western New Mexico University; MBA, JD, University of South Dakota; 2008 -
Hamid Yeganeh, Assistant Professor, BA, Isfahan University; MBA, PhD, Laval University; 2007 -

## PURPOSE

The purpose of the Business Administration program is to prepare students through a progressive discipline for careers in management and administrative positions 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. Students who pursue an education in management information systems (MIS) will develop an understanding of the integration of information systems technologies into various business units.

## DEPARTMENT PROGRAMS

- BS Major/Minor - Business Administration (BA)
- BS Major - Human Resources Management (HRMT)
- BS Major - Management Information Systems (MIS)
- BS Minor - Business Administration (BA)
- BS Minor - Business Law (BLAW)
- BS Minor - International Business (INTB)
- BS Minor - Management (MGMT)
- BS Minor - Management Information Systems (MIS)


## COLLEGE OF BUSINESS ADMISSIONS POLICY

All majors and minors in the College of Business must satisfy the College of Business Admissions Policy.
Admission to the College of Business (COB) for College of Business BS majors and minors is required before students may enroll in 300- and 400-level
classes. $\dagger$ Students must meet the following specific requirements:

1. 30 or more earned credits at the time of application.
2. Cumulative GPA of 2.5 .
3. Completion of the following courses with a minimum grade of "C":

| ACCT 211 | CMST 191 | ECON 201 |
| :--- | :--- | :--- |
| ECON 222 or STAT 210 $\ddagger$ | ENG 111 | MATH 110 or above $\ddagger$ |

$\dagger$ Non-College of Business majors and minors must have junior status and instructor's permission to take COB 300-and 400-level courses.
$\ddagger \quad \mathrm{COB}$ minors with Non-COB major: Completion of math and statistics courses required by their major or, if none are required, these students should take any college-level math and statistics courses.

## GRADUATION REQUIREMENTS FOR ALL DEPARTMENT OF BUSINESS ADMINISTRATION MAJORS

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 - and 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. Meet all WSU graduation requirements. For a checklist of the University's graduation requirements, see page 23.

## WSU-Rochester

The Business Administration major is available through the Path to Purple Program at WSU-Rochester. See page 36 for the articulation of this 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)

## Writing (ß)

MGMT 317 Management of Human Resources (3)
MGMT 325 Organizational Dynamics (3)
MIS 482 Management of Information Technology (3)

Flag courses that can be used to satisfy major/minor requirements are identified in the lists of required courses and electives.

BS MAJOR－BUSINESS ADMINISTRATION（BA）
66 S．H．（No Minor Required）

## REQUIRED COURSES－COLLEGE OF BUSINESS CORE（39 S．H．）

$\dagger$ MATH 110 Finite Mathematics OR higher（3）（Students considering graduate school should take MATH 140 Applied Calculus．）

| $\dagger$ | ACCT | 211 | Financial Accounting Principles（3） |
| :--- | :--- | :--- | :--- |
|  | ACCT | 212 | Managerial Accounting Principles（3） |
| $\dagger$ | ECON | 201 | Principles of Microeconomics（3） |
| $\dagger$ | ECON | 202 | Principles of Macroeconomics（3） |
| mo | ECON | 222 | Business Statistics OR STAT 210（3） |
|  | BUSA | 291 | Legal Environment in Business（3） |
| $\dagger$ | FIN | 360 | Corporate Finance（3） |
| MKTG | 300 | Principles of Marketing（3） |  |
| MIS | 362 | Management Information Systems（3） |  |
| B | MGMT 325 | Organizational Dynamics（3） |  |
| MGMT 334 | Operations Management（3） |  |  |
| MGMT | MGM5 | Strategic Management（3） |  |

$\dagger$ Satisfies University Studies requirements．

## ADDITIONAL REQUIRED COURSES（15 S．H．）

## Business Administration（3 S．H．）

BUSA 311 Business Law II（3）

## MIS（3 S．H．）

MIS 202 Microcomputers in Business（3）
Management（9 S．H．）
同 MGMT 317 Management of Human Resources（3）
MGMT 345 International Business（3）
MGMT 464 Project Management（3）

## ELECTIVES（12 S．H．）

Notes：Must be $300+$ level courses：
－Courses from the Department of Business Administration（business administration，management，or MIS）（6）
－Courses from the College of Business（6）
BS MAJOR－HUMAN RESOURCES MANAGEMENT（HRMT）
66 S．H．（No Minor Required）

## REQUIRED COURSES－COLLEGE OF BUSINESS CORE（39 S．H．）

$\dagger$ MATH 110 Finite Mathematics OR higher（3）（Students considering graduate school should take MATH $140 \dagger$ Applied Calculus．）
$\dagger$ ACCT 211 Financial Accounting Principles（3）
ACCT 212 Managerial Accounting Principles（3）
$\dagger$ ECON 201 Principles of Microeconomics（3）
$\dagger$ ECON 202 Principles of Macroeconomics（3）
fo ECON 222 Business Statistics OR STAT 210 （3）
BUSA 291 Legal Environment in Business（3）
$\dagger$ FIN 360 Corporate Finance（3）
MKTG 300 Principles of Marketing（3）
MIS 362 Management Information Systems（3）
B MGMT 325 Organizational Dynamics（3）
MGMT 334 Operations Management（3）
w MGMT 495 Strategic Management（3）
$\dagger$ Satisfies University Studies requirements．

## ADDITIONAL REQUIRED COURSES（21 S．H．）

## Management（21 S．H．）

MGMT 315 Principles of Management（3）
巴 MGMT 317 Management of Human Resources（3）
MGMT 417 Compensation Management（3）
MGMT 427 Human Resources and Organizational Development（3）
MGMT 437 Labor Relations and Collective Bargaining（3）
MGMT 464 Project Management（3）
MGMT 467 Staffing and Evaluation（3）

## ELECTIVES（ 6 S．H．）

Note：All six elective credits must be in $300+$ level courses and must be selected from the following list of courses：

## Business Administration

BUSA 321 Applied Business Ethics（3）
BUSA 351 Employment Law（3）

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    BUSA 399 Internship Project (3)
    BUSA 486 Independent Studies in Business (1-3)
Management
    MGMT 345 International Business (3)
    MGMT }365\mathrm{ Independent Readings in Management (1-3)
    MGMT }377\mathrm{ Independent Readings in Human Resources (1-3)
    MGMT 385 Social Entrepreneurship (3)
    MGMT }387\mathrm{ Independent Readings in Labor Relations (1-3)
    MGMT 415 Theories of Management (3)
    MGMT 425 Small Business Management (3)
    MGMT 457 Seminar in Human Resources (3)
    MGMT 475 International Management (3)
    MGMT 477 International Human Resources Management (3)
Business Education
    BUED 440 Training and Employee Development (3)
Economics
    ECON 420 Labor Economics (3)
BS MAJOR - MANAGEMENT INFORMATION SYSTEMS (MIS)
    7 7 \text { S.H. (No Minor Required)}
REQUIRED COURSES - COLLEGE OF BUSINESS CORE (39 S.H.)
\dagger MATH 110 Finite Mathematics OR higher (3) (MATH 140
    Applied Calculus is required and counts toward the University Studies
    requirement.)
\dagger ACCT 211 Financial Accounting Principles (3)
    ACCT 212 Managerial Accounting Principles (3)
\dagger ECON 201 Principles of Microeconomics (3)
\dagger ECON 202 Principles of Macroeconomics (3)
to ECON 222 Business Statistics OR STAT 210 (3)
    BUSA 291 Legal Environment in Business (3)
\dagger FIN 360 Corporate Finance (3)
    MKTG 300 Principles of Marketing (3)
    MIS 362 Management Information Systems (3)
& MGMT 325 Organizational Dynamics (3)
    MGMT }334\mathrm{ Operations Management (3)
m MGMT 495 Strategic Management (3)
\dagger Satisfies University Studies requirements.
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## ADDITIONAL REQUIRED COURSES（32 S．H．）

Computer Science（8 S．H．）
CS 234 Algorithms \＆Problem Solving I（4）
CS 250 Algorithms \＆Problem Solving II（4）
Management（3 S．H．）
MGMT 464 Project Management（3）
Management Information Systems（21 S．H．）
MIS 202 Microcomputers in Business（3）
MIS 312 Business Computer Programming（3）
MIS 342 Advanced Business Computer Applications（3）
MIS 372 Management of Business Systems Development（3）
MIS 412 Management of E－Commerce（3）
MIS 452 Management of Telecommunication Systems（3）
用 MIS 482 Management of Information Technology（3）
ELECTIVES（6 S．H．）

| ACCT | 330 | Accounting Information Systems（3） |
| :--- | :--- | :--- |
| ACCT | 361 | Intermediate Managerial／Cost Accounting（3） |
| CS | 310 | Social Implications of Computing（3） |
| CS | 344 | Introduction to Web Programming（3） |
| CS | 375 | Computer Systems（4） |
| CS | 385 | Applied Database Management Systems（3） |
| FIN | 335 | Forecasting Methods（3） |
| FIN | 440 | International Finance（3） |
| MGMT 414 | Operations Planning and Control（3） |  |
| MGMT | 435 | Managing for Quality（3） |
| MIS | 332 | Business Programming Tools（3） |
| MIS | 399 | Internship Problems（3） |
| MIS | 462 | Decision Support Systems（3） |
| MIS | 472 | Management of LANs and WANs（3） |
| MIS | 492 | Topics in MIS（3） |

BS MINOR－BUSINESS ADMINISTRATION（BA）
33 S．H．For Non－College of Business majors only．

REQUIRED COURSES（33 S．H．）

## Accounting（6 S．H．）

ACCT 211 Financial Accounting Principles（3）
ACCT 212 Managerial Accounting Principles（3）
Business Administration／MIS（12 S．H．）
BUSA 291 Legal Environment of Business（3）
昍 MGMT 325 Organizational Dynamics（3）
MGMT 334 Operations Management（3）
MIS 362 Management Information Systems（3）
Economics（9 S．H．）
$\dagger$ ECON 201 Principles of Microeconomics（3）
$\dagger$ ECON 202 Principles of Macroeconomics（3）
切 ECON 222 Business Statistics（3）OR STAT 210 （3）

## Finance（3 S．H．）

$\dagger$ FIN 360 Corporate Finance（3）
Marketing（3 S．H．）
MKTG 300 Principles of Marketing（3）
$\dagger$ Satisfies University Studies requirements．

## BS 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 291 Legal Environment of Business（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 321 Applied Business Ethics（3）
BUSA 351 Employment Law（3）
BUSA 376 Topics in Business（1－3）
Note：BUSA 376 requires prior written approval from department chairperson．
BUSA 411 International Business Law（3）
BUSA 421 Consumer Law（3）
BUSA 431 Real Estate Law（3）
BUSA 491 Seminar in Business Law（3）
Philosophy
PHIL 332 Philosophy of Law（3）
Political Science
POLS 320 Constitutional Law（3）
POLS 420 Administrative Law（3）
Psychology
PSY 330 Psychology and the Law（3）
Additional courses may be used with prior written approval from the department chairperson．
BS MINOR－NTEERNATIONAL BUSINESS（INTB）
30 S．H．

## REQUIRED COURSES（18 S．H．）

$\dagger$ GS 200 Introduction to Global Studies（3）
MGMT 345 International Business（3）
MGMT 475 International Management（3）
Select three courses from the following：
MKTG 331 International Marketing（3）
FIN 440 International Finance（3）
BUSA 411 International Law（3）
$\dagger$ ECON 404 International Economics（3）OR
ECON 415 International Economic Development（3）

## Foreign Language（6 S．H．）

Minimum of two semesters of one foreign language．Automatic credit for international students．

ELECTIVES（ 6 S．H．）
GS 205 Cultural Encounters（3）
$\dagger$ GS 250 Introduction to Asia（3）
GS 350 Cross－Cultural field Experience（or an international travel
study；automatic credit for international students）
Asian International Relations（3）
ACCT 424 International Taxation（3）
MGMT 477 International Human Resources Management（3）
$\dagger$ CMST 281 Intercultural Communication（3）
CMST 381 Advanced Intercultural Communications（3）（offered every third semester）
Only one of the following courses：
$\dagger$ HIST 165 Latin American History（3）
HIST 233 History of Mexico（3）
HIST 341 Modern Japan（3）
HIST 343 Modern China（3）
HIST 434 Soviet Russia（1905－present）（3）
HIST 469 History of Brazil（3）or other appropriate 300＋elective approved in advance by the Business Administration Department．
$\dagger$ Satisfies University Studies requirements．
BS 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）
ß MGMT 325 Organizational Dynamics（3）
MGMT 385 Social Entrepreneurship（3）
MGMT 415 Theories of Management（3）
MGMT 425 Small Business Management（3）
M MGMT 495 Strategic Management（3）
Human Resources Component
々 MGMT 317 Management of Human Resources（3）
MGMT 417 Compensation Management（3）
MGMT 427 Human Resources and Organization Development（3）
MGMT 437 Labor Relations and Collective Bargaining（3）
MGMT 457 Seminar in Human Resources（3）
MGMT 467 Staffing and Evaluation（3）
Operational Component
MGMT 334 Operations Management（3）
MGMT 344 Purchasing（3）
MGMT 414 Operations Planning and Control（3）
MGMT 435 Managing for Quality（3）
MGMT 464 Project Management（3）

## International Component

MGMT 345 International Business（3）
MGMT 475 International Management（3）
MGMT 477 International Human Resources Management（3）

## ELECTIVES（18 S．H．）

Select any additional 18 S．H．from the above list．

## BS 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．） |  |  |
| ACCT | 330 | Accounting Information Systems（3） |
| MGMT | 464 | Project Management（3） |
| MIS | 332 | Business Programming Tools（3） |
| MIS | 372 | Management of Business Systems Development（3） |
| MIS | 412 | Management of E－Commerce（3） |
| MIS | 452 | Management of Telecommunication Systems（3） |
| MIS | 462 | Decision Support Systems（3） |
| MIS | 472 | Management of LANs and WANs（3） |

## 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.

## 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.

## 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. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, BUSA 291, and junior standing. Prerequisites for all other majors and minors: Junior standing, BUSA 291, and instructor's permission. Grade only.

## 321 - Applied Business Ethics (3 S.H.)

This course examines ethics within an organization and the pressures derived from societal and governmental expectations. Students will review and critique legislation and judicial opinions addressing the entire continuum of organizational activities through the use of case studies. Prerequisites for College of Business BS majors and minors: Admission to the College of Business and junior standing. Prerequisites for all other majors and minors: Junior standing and 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 discussions 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 the horizons and career potential of graduates. Prerequisites for College of Business BS majors and minors: Admission to the College of Business and junior standing. Prerequisites for all other majors and minors: Junior standing and instructor's permission. Grade only.

## 351 - Employment Law (3 S.H.)

An in-depth analysis of statutes and cases that regulate the employment setting. Topics include wrongful termination, privacy in the workplace, discrimination under Title VII, other statutory protections against discrimination, occupational safety and health requirements, minimum wages and overtime, and employee welfare programs such as social security and worker's compensation. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, junior standing, and BUSA 291. Prerequisites for all other major and minors: Junior standing, BUSA 291, and 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. Prerequisites for College of Business BS majors and minors: Admission to the College of Business and junior standing. Prerequisites for all other majors and minors: Junior standing and instructor's permission. Grade only.

## 398 - Internship (1-9 S.H.)

Credits will not be counted in the Business Administration major, but as general elective credits. Prerequisite: Admission to the College of Business, junior standing, and concurrent enrollment in BUSA 399. P/NC only.

## 399 - Internship Project (3 S.H.)

Courses that must be completed prior to an internship vary by program. Prerequisites for business administration internships: Admission to the College of Business, ACCT 212, ECON 202, MKTG 300, MIS 202, BUSA 291, MGMT 334, and ECON 222. Prerequisites for HRM
internships: Admission to the College of Business, MGMT 317, MGMT 325 , and two additional required and/or elective HRM courses. See department website for additional information. Minimum 2.0 GPA. Grade only.

411 - International Business Law (3 S.H.)
A study of a variety of transnational business transactions and applicable legal regulations. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, junior standing, and BUSA 291. Prerequisites for all other majors and minors: Junior standing, instructor's permission, and BUSA 291. 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. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, junior standing, and BUSA 291. Prerequisites for all other majors and minors: Junior standing, instructor's permission, and BUSA 291. 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. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, junior standing, and BUSA 311. Prerequisites for all other majors and minors: Junior standing, instructor's permission, and 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. Total credits may not exceed 6 S.H. Prerequisites for College of Business BS majors and minors: Admission to the College of Business and junior standing. Prerequisites for all other majors and minors: Junior standing and instructor's permission. 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. Prerequisites for College of Business BS majors and minors: Admission to the College of Business and junior standing. Prerequisites for all other majors and minors: Junior standing and instructor's permission. Grade only.

## MANAGEMENT - MGMT

## 315 - Principles of Management (3 S.H.)

Introduces students to basic management concepts and theories; covers topics such as planning, organizing, controlling, leading, and staffing functions. Prerequisites for College of Business BS majors and minors: Admission to the College of Business and junior standing. Prerequisites for all other majors and minors: Junior standing and instructor's permission. Grade only.

317 - Management of Human Resources (3 S.H.)
Examines problems involved in developing an organization's human resources so that benefits to both the individual and the organization are maximized. Prerequisite for College of Business BS majors and minors: Admission to the College of Business. Prerequisites for all other majors and minors: Junior standing and instructor's permission. Grade only.

325 - Organizational Dynamics (3 S.H.)
Provides students with the knowledge and skills to understand and manage human behavior in organizations. Topics include learning and motivation, values and ethics, perception, communication, leadership, group dynamics, conflict and negotiation, power and politics, and organizational structure. Prerequisites for College of Business BS majors and minors: Admission to the College of Business and junior standing. Prerequisites for all other majors and minors: Junior standing and instructor's permission. Grade only.

334 - Operations Management (3)
An introduction to the management of the operations function in manufacturing and service organizations. Topics include operations strategy, quality management and control, manufacturing and service processes, inventory management and control, forecasting and operations planning, and project management. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, junior standing, and ECON 222 or STAT 210. Prerequisites: For all other majors and minors: Junior standing, instructor's permission, and ECON 222 or STAT 210. Grade only.

## 344 - Purchasing (3)

A study of purchasing management that includes objective procedures, organization, ordering techniques, inventory control, vendor selection, price, equipment procurement, legal aspects, make or buy, and purchasing department reports. Prerequisites for College of Business BS majors and minors: Admission to the College of Business and junior standing.

Prerequisites for all other majors and minors: Junior standing and instructor's permission. Grade only.

345 - International Business (3 S.H.)
A study of how managing abroad differs from managing at home from strategic and operations-oriented perspectives. This introductory course covers social, economic, geopolitical, and cultural dimensions of crossborder business. Prerequisites for College of Business BS majors and minors: Admission to the College of Business and junior standing. Prerequisites for all other majors and minors: Junior standing and instructor's permission.

## 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. Chapter summaries and evaluations are requested for each book as well as an integrative report, comparing and contrasting each of the books. Limit of 6 credits of independent study. Prerequisites for College of Business BS majors and minors: Admission to the College of Business and junior standing. Prerequisites for all other majors and minors: Junior standing and instructor's permission. 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. Chapter summaries and evaluations are requested for each book as well as an integrative report, comparing and contrasting each of the books. Limit of 6 credits of independent study. Prerequisites for College of Business BS majors and minors: Admission to the College of Business and junior standing. Prerequisites for all other majors and minors: Junior standing and instructor's permission. Grade only.

385 - Social Entrepreneurship (3 S.H.)
Opportunities and challenges facing social entrepreneurs and nonprofit organizations will be examined through an engaged learning approach. Volunteering, tours of area nonprofit organizations, and an organizational analysis project are required. Prerequisites for College of Business BS major and minors: Admission to the College of Business, junior standing, and MGMT 325 (or concurrent enrollment). Prerequisites for all other major and minors: Junior standing, instructor's permission, and MGMT 325 (or concurrent enrollment). 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. Chapter summaries and evaluations are requested for each book as well as an integrative report, comparing and contrasting each of the books. Limit of 6 credits of independent study. Prerequisites for College of Business BS majors and minors: Admission to the College of Business and junior standing. Prerequisites for all other majors and minors: Junior standing and instructor's permission. 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; secondary emphasis is on advanced topics in the following areas: material requirements planning, Just-in-Time, theory of constraints, and scheduling. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, MGMT 334, and junior standing. Prerequisites for all other majors and minors: Junior standing, MGMT 334, and instructor's permission. 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. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, junior standing, and MGMT 315 or MGMT 325. Prerequisites for all other majors and minors: Junior standing, instructor's permission, and MGMT 315 or MGMT 325. Grade only.

417 - Compensation Management (3 S.H.)
This course provides students with theories and approaches to the design and management of compensation systems and benefit programs. Topics include the design, implementation, and evaluation of jobs, salary surveys, job- or person-based pay structure, pay-for-performance, and benefit programs. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, ECON 202, MGMT 317 (or concurrent enrollment), and junior standing. Prerequisites for all other majors and minors: Junior standing, ACCT 211, ECON 201, ECON 202, MGMT 317 (or concurrent enrollment), and 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 for College of Business

BS majors and minors: Admission to the College of Business, junior standing, ECON 222, and MGMT 325. Prerequisites for all other majors and minors: Junior standing, ECON 222, MGMT 325, and instructor's permission. Grade only.

427 - Human Resource and Organization Development (3 S.H.) This course provides students with an overview of human resource (HR) development and organization development. Focusing on the HR professional as a strategic business partner and change agent, this course covers employee learning and development, career management, organizational learning, and change management. This course also covers HR strategy, HR measurement, and HR's role in organizations. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, junior standing, MGMT 317, and MGMT 325. Prerequisites for all other majors and minors: Junior standing, MGMT 317, MGMT 325, and instructor's permission. Grade only.

435 - Managing for Quality (3 S.H.)
Study of the philosophy of Quality Management stressing the essential components of becoming a learning organization. Emphasis is placed on new and advanced concepts and analytical tools used for continuous improvement and assessments in a competitive environment. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, junior standing, MGMT 325, and MGMT 334. Prerequisites for all other majors and minors: Junior standing, MGMT 325, MGMT 334, and instructor's permission. Grade only.

437 - Labor Relations and Collective Bargaining (3 S.H.)
This course introduces students to the field of labor relations. It is designed to give students a balanced perspective of the requirements and goals of both the union and management and to prepare them to deal with labor-related issues in the workplace. Topics include: labor movement in the U.S., major labor legislation, forming/organizing labor unions, and the collective bargaining process in both the public and private sector. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, junior standing, and MGMT 317. Prerequisites for all other majors and minors: Junior standing, MGMT 317, and instructor's permission. Grade only.

457 - Seminar in Human Resources Management (3 S.H.)
This course deals with controversial, practical situations involving people at work with the goal of providing greater insight into the complexities of working effectively with others within immediate work groups and beyond. This course can be used as the preparation course for the HRCI (Human Resource Certification Institute) PHR certification. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, junior standing, MGMT 317, and MGMT 325. Prerequisites for all other majors and minors: Junior standing, ACCT 211, ECON 201, MGMT 317, MGMT 325, and instructor's permission. Grade only.

## 464 - Project Management (3 S.H.)

This course addresses the skills needed to initiate, plan, execute, control, and close projects. Various tools for managing projects will be covered including computer software such as Microsoft Project. Prerequisites for College of Business BS majors and minors: Admission to College of Business and MGMT 334. Prerequisites for all other majors and minors: Junior standing, MGMT 334, and instructor's permission. Grade only.

467 - Staffing and Evaluation (3 S.H.)
This course is designed to provide students with theory/practice of staffing decisions. It discusses staffing models and strategy; staffing support systems (legal compliance, planning, job analysis and rewards); core staffing systems (recruitment, selection, employment); and staffing system and retention management. Professional ethics and compliance with legal requirements are considered, as are appropriate methods for describing the job, attracting the right person, assessing applicants, short listing, and selection. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, junior standing, MGMT 315, and MGMT 317. Prerequisites for all other majors and minors: Junior standing, ACCT 211, ECON 201, ECON 222, MGMT 315, MGMT 317, and instructor's permission. Grade only.

475 - 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 the latest literature and case studies to examine these changes in this field. Prerequisites for College of Business BS majors and minors: Admission to College of Business, MGMT 345 or instructor's permission, and junior standing. Prerequisites for all other majors and minors: Junior standing, MGMT 345, and 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 for College of Business BS majors and minors: Admission to the College of Business,

MGMT 317, MGMT 325, and junior standing. Prerequisites for all other majors and minors: Junior standing, MGMT 317, MGMT 325, and instructor's permission. Grade only.

494- Current Topics in Operations Management (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. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, junior standing, and MGMT 334. Prerequisites for all other majors and minors: Junior standing, MGMT 334, and instructor's permission. Grade only.

495 - Strategic Management (3 S.H.)
An advanced, integrative course for College of Business majors and minors. Uses cases to stress interrelationships of all functional areas, organization life stages, strategy development, and policy formation. Prerequisites for College of Business majors and minors: Admission to the College of Business, MKTG 300, MGMT 325, MGMT 334, FIN 360, and senior standing. Grade only.

## MANAGEMENT INFORMATION SYSTEMS - MIS

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. Offered fall and spring semesters.

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. Prerequisites for College of Business BS majors and minors: Admission to the College of Business and junior standing. Prerequisites for all other majors and minors: Junior standing and instructor's permission. 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 for College of Business BS majors and minors: Admission to the College of Business, MIS 312, and junior standing. Prerequisite for all other majors and minors: Junior standing, MIS 312, and instructor's permission. Grade only.

## 342 - Advanced Business Computer Applications (3 S.H.)

The focus of this course is on the development and management of business database systems. It provides the theoretical concepts as well as practical approaches to planning, development, testing, 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. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, MIS 202, and junior standing. Prerequisites for all other majors and minors: Junior standing, MIS 202, and instructor's permission. Grade only. Offered fall and spring semesters.

## 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 for College of Business BS majors and minors: Admission to the College of Business. Prerequisites for all other majors and minors: Junior standing and instructor's permission. Grade only. Offered fall and spring semesters.

372 - Management of Business Systems Development (3 S.H.) An introduction to business systems development concepts and methodologies from the project management approach. The course covers a variety of business systems development topics including how to view a firm as a system, IT infrastructure, project management, systems development stages, process modeling, data modeling, object modeling, and design pattern with the latest design tools. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, MIS 312, MIS 342, MIS 362, and junior standing. Prerequisites for all other majors and minors: Junior standing, MIS 312, MIS 342, MIS 362, and instructor's permission. Grade only. Offered fall semester.

398 - Internship (1-9 S.H.)
Credits will not be counted in the MIS major, but will be counted as general elective credits. Prerequisites for College of Business majors: Admission to the College of Business, concurrent enrollment in MİS 399, and junior standing. P/NC only.

399 - Internship Project (3 S.H.)
Allows the student opportunity for hands-on experience, applying MIS principles and method in an organizational setting. Prerequisites for MIS majors and minors: Admission to the College of Business, MGMT 325, MGMT 334, MIS 312, MIS 362, minimum 2.5 GPA , and junior standing. 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 is discussed. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, MIS 362, and junior standing. Prerequisites for all other majors and minors: Junior standing, MIS 362, and instructor's permission. 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. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, MIS 362, and junior standing. Prerequisites for all other majors and minors: Junior standing, MIS 362, and instructor's permission. Grade only. Offered fall semester.
462 - Decision Support Systems (3 S.H.)
This course focuses on complex management decision activities, which require extensive use of information and modeling. It explores the application of computer-based management decision support systems (DSS) not only to operational and control decisions, but also to strategic and planning managerial decision-making activities. The conceptual framework as well as practical application of DSS is discussed. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, MIS 362, and junior standing. Prerequisites for all other majors and minors: Junior standing, MIS 362, and instructor's permission. 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 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. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, MIS 452, and junior standing. Prerequisites for all other majors and minors: Junior standing, MIS 452, and instructor's permission. Grade only.

482 - Management of Information Technology (3 S.H.)
This course introduces students to the current issues in information technologies mainly through case analysis. Different methods of dealing with the issues involved are discussed. Various systems in information technology are presented. The importance of management control is emphasized and multinational IT is covered also. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, MIS 372, MIS 452, and junior standing. Prerequisites for all other majors and minors: Junior standing, MIS 372, MIS 452, and instructor's permission. Grade only.

## 486 - Independent Studies in MIS (1-3 S.H.)

Offers the advanced student an opportunity to do additional reading and/ or research in areas of special interest regarding management information systems. Prerequisites for College of Business BS majors and minors: Admission to the College of Business, instructor's permission, and senior standing. Prerequisite for all other majors and minors: Senior standing and instructor's permission. 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 perspectives for adapting to information systems technology. Key conceptual frameworks of MIS, as well as cutting-edge business application development technologies, are presented. Prerequisite for College of Business BS majors and minors: Admission to the College of Business, MIS 362, and junior standing. Prerequisite for all other majors and minors: Junior standing, MIS 362, and instructor's permission. Grade only.

## BUSINESS EDUCATION

Somsen Hall, Room 319 (507-457-5350)
www.winona.edu/bued
(Director)

## FACULTY

Dana Brigson, Assistant Professor; BS, University of Wisconsin-Whitewater; MS, University of Wisconsin-La Crosse; PhD, Capella University; 2007 -

## 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 or certification program 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 or certification program 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 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 5 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, RETENTION, AND GRADUATION REQUIREMENTS

For information about admission and retention requirements, see page 215. For a checklist of the University's graduation requirements, see page 23.

## 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 2.50 GPA in the major.
3. Meet the admission requirements of the College of Education listed on page 215.

## BUSINESS EDUCATION TEACHING MAJORS

Students interested in the business education teaching major should contact the Business Education office for an advisor. 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 teacher education program requirements on page 214, or refer to either of these websites: www.winona.edu/bued or www.winona.edu/education. Refer to the business education website for information regarding the articulation agreement with Minnesota State University-Mankato for the Business Education program.

Business Education faculty members recommend 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 215.

## 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:

[^0]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.

## REQUIRED COURSES (52 S.H.)

## Business Education - BUED (34 S.H.)

201 Keyboarding (1)
203 Document Production and Procedures (2)
215 Personal Finance (3)
320 Business Technology (3)
330 Advanced Business Technology (3)
B333 Business Communication (3)
ฉ 335 Information Resource Management (3)
340 Integrated Information Systems Applications (3)
360 Interpersonal Business Relations (3)

* 401 General Methods and Foundations (3)

403 Technology and Business Teaching Methods (3)
435 Information Systems/Personnel Management (3)
490 Capstone Seminar (1)
Accounting - ACCT (6 S.H.)
211 Financial Accounting Principles (3)
212 Managerial Accounting Principles (3)
Business Administration - BUSA (3 S.H.)
291 Legal Environment of Business (3)

## Economics - ECON (6 S.H.)

201 Principles of Microeconomics (3)
202 Principles of Macroeconomics (3)
Finance - FIN (3 S.H.)
360 Corporate Finance (3) OR
201 Introduction to Finance (3)
Marketing-MKTG (3 S.H.)
300 Principles of Marketing (3)

## RECOMMENDED ELECTIVES (3 S.H.) $\dagger$

## Business Administration - BUSA

106 Introduction to Business (3)
Business Education - BUED
218 Job Search Strategies: Resumé (1)
219 Job Search Strategies: Application Letter and Interview (1)
336 Information Services Seminar (1)
350 Quality of Work Life (3)
埗 410 Administrative Communication (3)
412 Team Building (1-3)
440 Training and Employee Development (3)
441 Training Techniques and Media (3)
$470 \quad$ Seminar in Training and Education for Business (1-3)
Educational Foundations and Technology - EFRT
442 The Adult Learner (3)
$\dagger$ Other electives may be taken with approval from the student's advisor.

## BS MINOR TRAINING AND DEVELOPMENT (TRDV)

24 S.H.

## REQUIRED COURSES (15 S.H.)

## Business Education-BUED (12 S.H.)

335 Information Resource Management (3)
[y 410 Administrative Communication (3)
440 Training and Employee Development (3)
441 Training Techniques and Media (3)
Educational Foundations, Research and Technology - EFRT (3 S.H.) 442 The Adult Learner (3)

## 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.

BUED 440 Training and Employee Development (3)
BUED 441 Training Techniques and Media (3) 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
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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 multicultural 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, and case analysis; meeting management; 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 <br> (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.

## CHEMISTRY

Pasteur Hall, Room 320 (507-457-5290)
www.winona.edu/chemistry/
Charla Miertschin (Chairperson)

## FACULTY

John C. Deming, Assistant Professor; BS, University of Montana; 2006-
Mark. A. Engen, Professor; BS, Bemidji State University; PhD, Montana State University; 1997 -
Jeanne L. Franz, Professor; BA, Augustana College; PhD, University of Minnesota-Twin Cities; 1996 -
M. Katie Hailer, Assistant Professor; BS, West Virginia University; PhD, University of Montana; 2008 -

Sara M. Hein, Associate Professor; BS, University of Wisconsin-La Crosse; PhD, University of Iowa; 2000 -
Robert W. Kopitzke, Professor; BS, MS, PhD, Florida Institute of Technology; 1999 -
Charla S. Miertschin, Professor; BS, Abilene Christian University; PhD, Texas A\&M University; 1993 -
Thomas W. Nalli, Professor; BS, Union College (NY); MS, PhD, University of Rochester; 1995 -
C.B. William Ng, Professor; BS, MS, PhD, University of British Columbia; 1986 -

Bruce A. Svingen, Professor; BA, St. Olaf College; PhD, Michigan State University; 1987 -

## PROGRAMS

Majors
The Chemistry Department offers coursework in all the major areas of chemistry, organized into seven different programs: ACS Chemistry, ACS
Biochemistry, ACS Environmental Chemistry, ACS Materials Chemistry, Chemistry (General), ACS Chemistry (Teaching), and Physical Science (Teaching). Each of these programs leads to a Bachelor of Science degree, which equips graduates for employment and prepares them for advanced study in chemistry and related areas. Programs that include "ACS" in the title have met the guidelines established and approved by the American Chemical Society (ACS). Graduates of these programs will be certified by ACS as professional chemists.

$$
\text { m Oral Flag 呵=Math/Critical Analysis Flag } \quad \text { B }=\text { Writing Flag }
$$

Students majoring in chemistry are encouraged to participate in undergraduate research projects with members of the department, through local industry internships, and through summer employment and research opportunities. Current information regarding faculty members' research interests is available on the Chemistry Department's website. The Chemistry Department is home to the Southeast Minnesota Analytical Service (SEMAS), which provides educational opportunities through part-time employment.

## Minors

For those students majoring in other fields, the Chemistry Department also offers minors in biochemistry, polymer chemistry, and chemistry.

## Pre-Professional Sequences

The Chemistry Department advises students in several pre-professional sequences that are not degree programs (e.g., major or minor) at WSU. Two of the pre-professional sequences offered through the Chemistry Department are Pre-Medicine (Allopathic and Osteopathic) and Pre-Pharmacy. For specific program requirements, see "Pre-Professional Sequences" (page 189).

## OUTCOMES

Regardless of the specific major chosen, graduates of a Chemistry Department program will be able to:

1. Apply scientific reasoning to chemical problems.
2. Demonstrate knowledge of the fundamental concepts of organic, inorganic, analytical, physical, and biochemistry.
3. Apply literature search methods to chemical topics.
4. Demonstrate competency with chemistry instrumentation and techniques.
5. Practice safe laboratory operations.
6. Communicate in a scientifically appropriate style.
7. Exemplify ethical behavior.

## 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 475 Seminar in Chemistry (1)
Math/Critical Analysis (PJ)
    CHEM 412 Physical Chemistry I (3)
    CHEM 414 Physical Chemistry II (3)
Writing (b)
    CHEM 400 Biochemistry I (4) (Note: Only 1 S.H. of CHEM }40
    counts as a Writing Flag.)
    CHEM 402 Biochemistry II Lab (1)
```


## BS MAJOR ACS CHEMISTRY (CHEM) <br> 74 S.H. (No Minor Required)

| CHEM | 413 | Physical Chemistry Lab I (1) |
| :--- | :--- | :--- |
| CHEM | 415 | Physical Chemistry Lab II (2) |
| CHEM | 426 | Analytical Chemistry II (4) |
| CHEM | 430 | Individual Projects 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.

## OTHER SUGGESTED ELECTIVES

Computer programming, biology, geology, and German

## BS MAJOR - ACS BIOCHEMISTRY (CHBC)

81 S.H. (No Minor Required)

## REQUIRED COURSES (79 S.H.)

Chemistry-CHEM (49 S.H.)
212, 213 Principles of Chemistry I, II (8)
350, 351 Principles of Organic Chemistry I, II (9)
m 360 Chemical Information (2)
400,401 Biochemistry I, II (7) (Note: Only 1 S.H. of CHEM 400 counts as a Writing Flag.)
402 Biochemistry Lab (1)
PJ 412,414 Physical Chemistry I, II (6)
Fo 413,415 Physical Chemistry Lab I, II (3)
425,426 Analytical Chemistry I, II (8) (CHEM 426 is a Writing Flag course.)
450 Advanced Inorganic Chemistry I (4)
m 475 Seminar in Chemistry (1)
Biology - BIOL (14 S.H.)
*241 Basics of Life (4)
*242 Organismal Diversity (4)
®- 308 Cell Biology (3)
时 310 Genetics (3)
Mathematics - MATH (8 S.H.)
160, 165 Calculus I, II (8)
Physics - PHYS (8 S.H.)
*221, *222 University Physics I, II (8)

| ELECTIVES（2 S．H．） |  |
| :---: | :---: |
| Biology－BIOL |  |
| 201 | Human Anatomy（3） |
| 323 | General Physiology（4） |
| 430 | Molecular Biology（3）OR |
| －2 431 | Molecular Biology Laboratory（4） |
| Chemistry－CHEM |  |
| 427 | Topics in Instrumental Chemistry（2） |
| $438 \dagger$ | Medicinal Chemistry（2） |
| $439 \dagger$ | Biochemistry of Drug Metabolism（2） |
| $430 \text { (回), }$ | 460，OR 461．Students may choose to pursue a research path under the direction of a research advisor．（1－3） |
| 470 | Isotope，Nuclear and Radiochemistry（2） |
| $\dagger$ Strongly recommended． |  |
| OTHER RECOMMENDED ELECTIVES |  |
| STAT | 210 Statistics（3）OR |
| STAT | 305 Biometry（3） |
| MATH | 260 Differential Equations and Linear Algebra（4） |
| ENG | 210 Advanced Expository Writing（3） |
| BS MAJOR CHEMISTRY－ACS ENVIRONMENTAL CHEMISTRY |  |
| （CHEC） |  |
| 78 S．H．（No Minor Required） |  |
| REQUIRED COURSES（67 S．H．） |  |
| Chemistry－CHEM（47 S．H．） |  |
| 212， 213 Principles of Chemistry I，II（8） |  |
| 320 Environmental Chemistry（4） |  |
|  | Organic Chemistry Survey（4） |
| ＊ 360 Chemical Information（2） |  |
| 时 412， 414 Physical Chemistry I，II（6） |  |
| B－413， 415 Physical Chemistry Lab I，II（3） |  |
| 425， $426 \begin{aligned} & \text { Analytical Chemistry I，II（8）（CHEM } 426 \text { is a Writing Flag } \\ & \text { course．）}\end{aligned}$ |  |
| $400 \quad \begin{aligned} & \text { Biochemistry I（4）} \\ & \text { as a Writing Flag．）}\end{aligned}$（Note：Only 1 S．H．of CHEM 400 |  |
|  | Topics in Environmental Chemistry（3） |
| 450 | Advanced Inorganic Chemistry I（4） |
| ＊ 475 | Seminar in Chemistry（1） |
| Biology－BIOL（4 S．H．） |  |
| 312， 313 General Ecology and General Ecology Laboratory（4） |  |
| Mathematics－MATH（8 S．H．） |  |
| 160， 165 | Calculus I，II（8） |
| Physics－PHYS（8 S．H．） |  |
| ＊221，＊222 University Physics I，II（8） |  |
| ELECTIVES（11 S．H．） |  |
| Biology－BIOL |  |
| B． 415 | Ecology of Large Rivers（4） |
| 420 | Limnology（4） |
| Chemistry－CHEM（3 S．H．） |  |
| 427 Topics in Instrumental Chemistry（2） |  |
| 428 Chemical Separations（3） |  |
| 430 （F），460，OR 461．Students may choose to pursue a research path under the direction of a research advisor．（1－3） |  |
| 470 | Isotope，Nuclear and Radiochemistry（2） |
| Geoscience－GEOS（4 S．H．） |  |
| 240 | Watershed Science（4） |
| 325 | Environmental Geoscience（3） |
| ＊ 370 | GIS and Imaging Technology（4） |
| 阿 420 | Applied Hydrogeology（4） |

－
BS MAJOR CHEMISTRY－ACS MATERIALS CHEMISTRY （CHMC）
83 S．H．（No Minor Required）
REQUIRED COURSES（83 S．H．）
Chemistry－CHEM（47 S．H．）
212， 213 Principles of Chemistry I，II（8）
350， 351 Principles of Organic Chemistry I，II（9）
淮360 Chemical Information（2）

Fo 412， 414 Physical Chemistry I，II（6）
B 413， 415 Physical Chemistry Lab I，II（3）
425 Analytical Chemistry（4）
450 Advanced Inorganic Chemistry I（4）
m 475 Seminar in Chemistry（1）
Composite Materials Engineering－CME（7 S．H．）
285 Properties of Materials（4）
394 Polymer Science and Characterization（3）
Mathematics－MATH（12 S．H．）
160， 165 Calculus I，II（8）
270 Differential Equations and Linear Algebra（4）
Physics－PHYS（8 S．H．）
＊221，＊222University Physics I，II（8）
ELECTIVES（9 S．H．）
Chemistry－CHEM
427 Topics in Instrumental Chemistry（2）
447 Advanced Organic Chemistry（2）
451 Advanced Inorganic Chemistry II（2）
430 （ $⿻$（ ），460，OR 461．Students may choose to pursue a research path under the direction of a research advisor．（1－3）

## Mathematics－MATH

260 Multivariable Calculus（4）
BS CHEMISTRY－GENERAL（CHEG）
67－68 S．H．（No Minor Required）
REQUIRED COURSES（51－52 S．H．）
Chemistry－CHEM（35－36 S．H．）
212， 213 Principles of Chemistry I，II（8）
340 Organic Chemistry Survey（4）
＊y 360 Chemical Information（2）
412 （ FJ ）， 413 （ F ）Physical Chemistry I and Physical Chemistry Lab I （4）
425 Analytical Chemistry（4）
m 475 Seminar in Chemistry（I）

## REQUIRED ELECTIVES

Chemistry－CHEM
Choose three of the following：
400 Biochemistry I（4）（Note：Only 1 S．H．of CHEM 400 counts as a Writing Flag．）
414 （ Fz ）， 415 （ F ）Physical Chemistry II and Physical Chemistry Lab II（5）
426 Analytical Chemistry II（4）
B 450 Advanced Inorganic Chemistry I（4）
Mathematics－MATH（8 S．H．）
160， 165 Calculus I，II（8）
Physics－PHYS（8 S．H．）
＊201，＊202 General Physics I，II（8）OR
＊221，＊222 University Physics，I，II（8）
ELECTIVES（16 S．H．）
Biology－BIOL
241，242， 308 （田）， 310
Chemistry－CHEM
320，351， 400 （田），401， 402 （田），410，411， 414 （問）， 415 （田）， 426 （ß），427，428，436，438，439，447，450，451，470， 472

TEACHING OPTIONS：BS MAJOR－CHEMISTRY（TEACHNG）
（CHCT）
BS MAJOR－PHYSICAL SCIENCE（TEACHING）（CPST）
Note：When this catalog went to print，all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching．Please contact your program advisor and refer to the Teacher Education Addendum （www．winona．edu／education／advising）for the latest information about program requirements whether you are（1）applying to a teacher education
program，（2）currently enrolled in a teacher education program，or（3） expecting to graduate with a teacher education degree in 2010 or 2011.

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 on the Minnesota Teacher Licensure Examination（MTLE） basic skills，content，and pedagogy tests．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．

## Academic Requirements

1．Students must have and maintain a cumulative GPA of 2.75 to be admitted to and continue in the Teacher Education program．
2．Students must have a minimum GPA of 2.50 in all courses completed in the declared major．
3．College graduates who need only a certification for grades $9-12$ physics are required to satisfy the standard content competencies gained through successful completion of these courses：
－PHYS 221，222，223， 311 （or CHEM 311），320，330，340，345， 350，370，and 460
－CHEM 212， 213
－MATH 160，165， 270
－EFRT 305，EFRT 308，EFRT312，EDUC 429，EFRT 459，and EDST 465
4．College graduates who need only a certification for grades 9－12 chemistry are required to complete these courses：
－CHEM 212，213， 311 （or PHYS 311），312，320，340，360，400， 412，413，425， 430 （ 1 S．H．），and 475
－PHYS 201 and 202 OR PHYS 221 and 222.
－MATH 160， 165
－EFRT 305，EFRT 308，EFRT312，EDUC 429，EFRT 459，and EDST 465

## PROFESSIONAL EDUCATION SEQUENCE

Teaching majors must apply for admission to the Teacher Education Program before they can enroll in Professional Education Sequence courses． Teaching majors must take all courses in the Professional Education Sequence in addition to the courses in the content area listed below．EFRT 305 and EFRT 312 must be taken together in the semester immediately following admission to the Teacher Education Program．EDUC 429 and EFRT 459 should be taken together in the semester prior to student teaching．For more information about teacher education admission requirements，see＂Teacher Education Programs＂on page 214.

BS MAJOR－ACS CHEMISTRY TEACHING（CHCT）
99－108 S．H．（No Minor Required）
Note：When this catalog went to print，all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching．Please contact your program advisor and refer to the Teacher Education Addendum （www．winona．edu／education／advising）for the latest information about program requirements whether you are（1）applying to a teacher education program，（2）currently enrolled in a teacher education program，or（3） expecting to graduate with a teacher education degree in 2010 or 2011.

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REQUIRED COURSES (44-49 S.H.)
Chemistry - CHEM (44-49 S.H.)
    212, 213 Principles of Chemistry I, II (8)
    311 Science Teaching Methods (4)
    312 Practical Considerations of Teaching Science (2)
    320 Environmental Chemistry (4)
    340 Organic Chemistry Survey (4) OR
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350， 351 Principles of Organic Chemistry I，II（9）
m 360 Chemical Information（2）
400 Biochemistry（4）（Note：Only 1 S．H．of CHEM 400 counts as a Writing Flag．）
412 （ F ）， 413 （（ 2 ）Physical Chemistry I and Physical Chemistry Lab I（4）
425 Analytical Chemistry I（4）
430 （R），460，OR 461．Students may choose to pursue a research path under the direction of a research advisor．（3）
$450 \quad$ Advanced Inorganic Chemistry I（4）
（m） 475 Seminar in Chemistry（1）

## CHEMISTRY ELECTIVES－CHEM（4 S．H．）



## OTHER REQUIREMENTS（51－55 S．H．）

## Education－EDUC（4 S．H．）

429 Secondary Reading and Teaching Strategies（4）
Education Foundations，Research and Technology－EFRT（13 S．H．）
305 Human Development and Learning：Secondary（4）
308 Human Relations and Student Diversity（3）
时 312 Instructional Planning and Assessment：Secondary（3）
巴 459 Professional Educator（3）
Education：Student Teaching－EDST（12－16 S．H．）
m 465 Student Teaching（12－16）
Health，Exercise and Rehabilitative Sciences－HERS（3 S．H．）
204 Personal and Community Health（3）
Mathematics－MATH（8 S．H．）
160， 165 Calculus I，II（8）
Physics－PHYS（8 S．H．）
＊201，＊202 General Physics OR
＊221，＊222 University Physics
Special Education－SPED（3 S．H．）
400 Education of Exceptional Children／Youth（3）

## BS MAJOR－PHYSICAL SCIENCE TEACHING（CPST）

109－113 S．H．（No Minor Required）
Note：When this catalog went to print，all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching．Please contact your program advisor and refer to the Teacher Education Addendum （www．winona．edu／education／advising）for the latest information about program requirements whether you are（1）applying to a teacher education program，（2）currently enrolled in a teacher education program，or（3） expecting to graduate with a teacher education degree in 2010 or 2011.

## REQUIRED COURSES（62 S．H．） <br> Chemistry－CHEM（32 S．H．）

212， 213 Principles of Chemistry I，II（8）
311 Science Teaching Methods（4）
312 Practical Considerations of Teaching Science（2）
320 Environmental Chemistry（4）
$340 \quad$ Organic Chemistry Survey（4）
my 360 Chemical Information（2）
时 412 Physical Chemistry I（3）
Po 413 Physical Chemistry Lab I（1）
425 Analytical Chemistry I（4）
Physics－PHYS（28 S．H．）
＊221，＊222， 223 University Physics I，II，III（12）
330 Electronics（4）
■ 340 Modern Physics（4）
350 Mechanics（4）
ß 370 Optics（4）
Physics or Chemistry（2 S．H．）
－CHEM 430 Individual Projects in Chemistry（1－3）AND
w CHEM 475 Seminar in Chemistry（1）OR
m PHYS 460 Undergraduate Research（2）

## OTHER REQUIREMENTS（47－51 S．I．）

Education－EDUC（4 S．H．）
429 Secondary Reading and Teaching Strategies（4）
Education Foundations，Research and Technology－EFRT（13 S．H．）
305 Human Development and Learning：Secondary（4）
308 Human Relations and Student Diversity（3）

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时 312 Instructional Planning and Assessment: Secondary (3)
R 459 Professional Educator (3)
Education: Student Teaching - EDST (12-16 S.H.)
泃 465 Student Teaching (12-16)
Health, Exercise and Rehabilitative Sciences - HERS (3 S.H.)
    HERS 204 Personal and Community Health (3)
Mathematics - MATH (12 S.H.)
    160 Calculus I (4)
    165 Calculus II (4)
    270 Differential Equations (4)
Special Education - SPED (3 S.H.)
    SPED 400 Education of Exceptional Children/Youth (3)
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BS 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）
Po 412 Physical Chemistry I（3）
425 Analytical Chemistry I（4）
Mathematics－MATH（4－8 S．H．）
120 Precalculus（4）
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．

## EEECTVES（2 S．H．）

Chemistry 300－400 electives．Not from CHEM 340， 341.

## BS MINOR－BIOCHEMISTRY（BIOC）

29－33 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 Biochemistry I（4）（Note：Only 1 S．H．of CHEM 400 counts as a Writing Flag．）
401 Biochemistry II（3）
402 Biochemistry Laboratory II（1）
Note：CHEM 340，Organic Chemistry Survey（4），may be substituted for CHEM 350
Mathematics－MATH（4－8 S．H．）
120 Precalculus（4）
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．

## BS MINOR－POLYMER CHEMISTRY（CHP） <br> 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 Materials（3）
Note：CHEM 340，Organic Chemistry Survey（4），may be substituted

## for CHEM 350.

Mathematics－MATH（4－8 S．H．）
120 Precalculus（4）
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，concurrent enrollment in MATH 120，or a higher－numbered mathematics course． Offered yearly．

## 311 －Science Teaching Methods（4 S．H．）

The pedagogical studies of current research trends and modern technology in science education will be used to prepare science majors to teach secondary school science content and process．This course provides opportunity for the qualified teaching candidate to relate to modern educational approaches to practical knowledge and experience in techniques of planning and safely conducting inquiry－based science activities，including laboratories， discussions，cooperative learning opportunities，etc．This course is a prerequisite to student teaching．Prerequisites：Admission to the teacher education program，GPA of 2.75 or higher，and instructor＇s permission．
312 －Practical Considerations of Teaching Science（2 S．H．） An opportunity for the qualified teaching candidate to obtain practical knowledge about and experience in teaching science content．Objectives include（1）program planning and evaluation；（2）evaluating current curriculum materials to determine their alignment with local，state，and national science standards；（3）modifying existing lessons and curriculum materials to align with those standards；（4）developing assessments that evaluate the learning of science concepts and methods of scientific inquiry； and（5）using research in science education to justify and defend a proposed instructional model or curriculum．Prerequisites：Admission to teacher education program，GPA of 2.75 or higher，and instructor＇s permission． Credits may not be applied toward＂electives＂category of other programs in chemistry．

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 session 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 as well as 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. Prerequisites 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 CME 300 or instructor's permission. Offered yearly.

## 411 - Synthesis and Characterization of Materials (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. 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 CHEM 425: one year of chemistry; prerequisites for CHEM 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. Prerequisites: 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 occasionally.

430 - Individual Projects 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 three credits per semester; may be repeated to a total of 11 credits. Offered each semester.

## 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: CHEM 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. Prerequisite: CHEM 401 or 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.

460 - Chemistry Research Proposal (1 S.H.)
In this course, students learn how to develop an effective research proposal. Elements of a good proposal and clear, concise writing are emphasized.
Students are required to write and present a research proposal. Prerequisites:
CHEM 360 and instructor's permission. Offered each spring.
461 - Chemistry Research (1-3 S.H.)
Students conduct chemistry research on the topics of their research
proposals completed in CHEM 460. A formal research report is required
at the completion of CHEM 461. Time is arranged with research advisor. Prerequisites: CHEM 460 and instructor's permission. May be repeated up to 10 credits. Offered each semester.

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.)
Students are expected to make oral and poster presentations on literature or laboratory research. Exploration of presentations by persons outside the department is included. Additional outreach opportunities will be scheduled as permitted. Prerequisite: 20 semester hours of chemistry. Offered yearly.

# CHILD ADVOCACY STUDIES 

Maxwell Hall, Room 269 (507-457-2892)
Angie Scott, JD (Program Director)
Email: AScott@ ${ }_{\text {winona.edu }}$

## ASSOCIATED FACULTY

Tamara Berg, Associate Professor; BA, University of Wisconsin; MA, PhD, Indiana University, Bloomington; 1995 -
J. Mark Norman, Associate Professor; BA, MS, St. Cloud State University; PhD, South Dakota State University; 1996 -

Todd Paddock, Assistant Professor; BS, University of Michigan; MS, Cornell University; PhD, Indiana University; 2004 -

## PURPOSE

The Child Advocacy Studies curriculum focuses on experiential, interdisciplinary, ethical, and culturally sensitive content that provides professionals working with children a common knowledge base for responding to child maltreatment. This program focuses on developing students' understanding of the numerous factors that lead to child maltreatment and existing responses to child maltreatment. The goal is to prepare students to work effectively within systems and institutions that respond to these incidents. Students will learn about the various disciplinary responses to child maltreatment and develop a multidisciplinary understanding of the most effective responses. Students completing the courses in this program will be better equipped to carry out the work of agencies and systems (health care, criminal justice, and social services) as they advocate on behalf of the needs of children as victims and survivors of child abuse.

## BA MINOR CHILD ADVOCACY STUDIES (CAST)

21 S.H.

## REQUIRED COURSES - CAST (18 S.H.) <br> 301 Perspectives on Child Maltreatment and Child Advocacy (3) <br> 302 Global Child Advocacy Issues (3) <br> 401 Professional and System Responses to Child Maltreatment (4) <br> 402 Responding to the Survivor of Child Abuse and Survivor Responses (4) <br> 407 CAST Capstone Experience (4)

## ELECTIVES - CAST (3 S.H.)

403 Child Exploitation, Pornography and the Internet (3)
404 Sociology of Child Poverty (3)
405 Gender, Violence and Society (4)
406 Child Advocacy Research Studies (3)
Students must apply for the child advocacy studies minor; applications for the minor are accepted in the fall and spring semesters. Please contact the Program Director for information about the application process. Students who wish to pursue the child advocacy studies certification are not required to complete an application.

## CHILD ADVOCACY STUDIES CERTIFICATION

Students who complete all three CAST certification courses receive a certificate of completion from the National Child Protection Training Center (NCPTC).

## REQUIRED CERTIFICATION COURSES - CAST (11 S.H.)

301 Perspectives on Child Maltreatment and Child Advocacy (3)
401 Professional and System Responses to Child Maltreatment (4)
402 Responding to the Survivor of Child Abuse and Survivor Responses (4)

## CERTIFICATION AND MINOR REQUIREMENTS

Students must receive a grade " C " or better in each course to obtain certification. In addition, students are expected to adhere to the ethical standards of the program.

## COURSE DESCRIPTIONS - CAST

301 - Perspectives on Child Maltreatment and Child Advocacy (3 S.H.) This is the introductory course for child advocacy studies. This course covers the history, comparative perspectives, legal framework, responses to child maltreatment, 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 professional perspectives, including that 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 in which knowledge of child maltreatment and advocating for children might be necessary. Much of the work will be hands-on. Prerequisite: None. CAST 301 is in the University Studies Critical Analysis category.

## 302 -Global Child Advocacy Issues (3 S.H.)

This is a core course for the child advocacy studies minor. The purpose is to prepare students to recognize child advocacy issues around the world. The course is designed for students majoring in criminal justice, education, social work, sociology, psychology, nursing, paralegal, or other areas in which knowledge of child maltreatment and advocating for children will be necessary. Multidisciplinary approaches to advocacy in different countries throughout the world will be presented and discussed. Prerequisite: None. CAST 302 is in the University Studies Unity and Diversity-Global Perspectives category.

## 401 - Professional and System Responses to Child Maltreatment (4 S.H.)

This course focuses on the responses of professionals to allegations of child maltreatment. The purpose 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 in which knowledge of child maltreatment investigation and advocacy are necessary. Students will receive competency-based skills training such as forensic interviewing, documentation, and so on. Prerequisite: CAST 301. Recommended prerequisites: Developmental psychology and communication courses.

## 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, or other areas in which 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.

403 - Child Exploitation, Pornography, and the Internet (3 S.H.) The overall goal of this course is the study and analysis of child sexual abuse and the manner in which human and social services respond to this problem. Specifically, this course will examine the predatory actions of offenders who engage in child sexual abuse and exploitation. Included in this assessment is an understanding of how perpetrators use computers, the Internet, and emerging technologies to exploit children. Students will also learn how social services and the criminal justice system respond to this phenomenon. Thus, the student will understand and appreciate the roles
of law enforcement, forensics, courts, social workers, and health service providers in the detection, investigation, and prosecution of this form of child exploitation.

404 - Sociology of Child Poverty (3 S.H.)
Students will analyze poverty and child poverty in the U.S. while placing both in an international and historical context. They will understand the demographics of poverty and the effects of poverty on children. They will critically evaluate sociological research and theories for poverty and child poverty. Students will also evaluate societal responses to poverty and child poverty, particularly as they relate to child maltreatment. This course is useful for students in fields such as nursing, criminal justice, education, social work, sociology, pre-medicine, and pre-law.

405 - Gender, Violence, and Society (4 S.H.)
This course introduces students to the roots of gender-based violence, the political and the cultural structures that perpetuate it; the course also explores how this violence might be brought to an end. Students will investigate the local and global impact of violence; how gendered violence intersects with race, class, sexuality, age, physical ability and the oppressions that are linked to these identities; and strategies for addressing genderbased violence. The overlap between gender-based violence and child abuse and neglect will be addressed under each topic. As part of the class, students will complete a 45 -hour advocacy training requirement and 15 hours of volunteer advocacy work offered in partnership with the Women's Resource Center of Winona. Course time will be divided between 2 credits of lab and 2 credits of theory. Prerequisite: CAST 301 or instructor's permission.

406 - Child Advocacy Research Studies (3 S.H.)
Students will read, interpret, and evaluate the significance of research findings to child advocacy study. The course helps students understand the role of research and information technology in providing evidencebased practice for child advocacy study within their respective disciplines. Students work in small groups to critique research studies and synthesize their knowledge of the research process in the analysis of several studies. These studies focus on concepts relevant to child advocacy such as the effects of maltreatment, prevention and education; cultural elements of practice; as well as other factors that influence practice with families affected by maltreatment. This course also examines research design, ethical issues in research, the professional's role in research, and the application of technology. Students will explore the use of computers and technology for processing and managing data. Prerequisites: CAST 301, 401, and 402, or instructor's permission.

## 407 - CAST Capstone Experience (4 S.H.)

This course is an intense site-based experience of the student's choice designed to encapsulate the essence of baccalaureate professional role development in an internship experience. This synthesis course allows students to expand their understanding of major concepts of child advocacy, experiential learning, and evidence-based practice in a setting of their choice. A multidisciplinary approach will be emphasized as students focus on ethical decision-making and cultural sensitivity with clients in a community location. Students work with preceptors in agencies and develop a project addressing a need within that agency. Prerequisites: CAST 301, 401, and 402 or instructor's permission.

## CLINICAL LABORATORY SCIENCE

Pasteur Hall, Room 220 (507-457-5270)
Dr. Judith A. Loewen (Program Director) 507-457-2993
WSU DIRECTORS
Judith A. Loewen, MT, (ASCP); Program Director, Assistant Professor; BS, University of Minnesota; MS, University of Wisconsin-Eau Claire; PhD, Mayo Graduate School of Medicine; 2008 -
Dr. Frances R. Ragsdale, Educational Coordinator, Professor; BS, Eastern Oregon State College; MS, Southeastern Louisiana University; PhD, University of Idaho; 1993 -

## ADJUNCT FACULTY

Note: ASCP = American Society of Clinical PathologY
Community Memorial Hospital, Winona, Minnesota
$\dagger$ Edward Hines Jr. VA Hospital, Hines, Illinois
Donna M. Wray, MT (ASCP), Program Director
$\dagger$ Hennepin County Medical Center (HCMC), Minneapolis, Minnesota
Robbi Montgomery, MLS, MT (ASCP) SI, CLS (NCA) MSEd, SBB, Program Director
$\dagger$ Mercy College of Health Sciences Clinical Laboratory Science Program, Des Moines, Iowa
Kyla Deibler, MS, MLS (ASCP), Program Chairperson
$\dagger$ University of North Dakota, Grand Forks, North Dakota
Ruth Paur, MS, MT (ASCP), CLS, (NCA), PhD, Program Director
Mary Ann Sens, MD, PhD, Professor and Chairperson
$\dagger$ University of Iowa, Des Moines, Iowa
Judith Kittleson, MT (ASCP), Site Coordinator
$\dagger$ Schools with which WSU has affiliated internship programs.

## PROGRAM OVERVIEW

The Clinical Laboratory Science (CLS) Program is a four-year course of instruction administered by the Biology Department and the College of Science and Engineering. CLS includes both coursework at the WSU campus and clinical training at an approved and affiliated clinical site. Upon satisfactory completion of the program, the student is eligible to apply for examination by two certifying agencies, the National Accrediting Agency for Clinical Laboratory Science (NAACLS) and the Committee on Allied Health Education and Accreditation (CAHEA). Successful completion of these exams leads to certification as a Clinical Laboratory Scientist/Medical Technologist.
First-year students entering this program should consult with the Program Director soon after arriving on campus. Other students wishing to enter this program must consult with the Program Director prior to declaring this major.

## CAREER OPPORTUNITIES

Individuals with a Bachelor of Science in Clinical Laboratory Science and certification are employed in hospital and clinical settings, where they are responsible for a variety of analyses of fluids and other types of specimens. They may also specialize in one area, such as blood banking or clinical microbiology. This degree also provides the appropriate preparation for students interested in continuing their education toward a graduate degree or a certificate field such as physiology, microbiology, or cytogenetics.

## UNVVERSITY 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 (My) |  |  |
| 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 (fI) |  |  |
| BIOL | 310 | Genetics (3) |

Writing (ß)
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)
BIOL 499 Capstone Project (1-3)
Flag courses that can be used to satisfy requirements for the Clinical Laboratory Science major are identified in the lists of required courses and electives in this section.

BS MAJOR - CLINICAL LABORATORY SCIENCE (CLS)
(82 S.H.) No Minor Required
REQUIRED MAJOR COURSES - BIOL (43 S.H.)
201 Human Anatomy (4)
241 Basics of Life (4)
242 Organismal Diversity (4)
*/4.307 Cell Biology Lab (1) OR BIOL 311, Genetic Laboratory (1)
— 308 Cell Biology (3)
时 310 Genetics (3)
B. 323 General Physiology (4)

324 General Physiology Lab (2)
333 Clinical Laboratory Techniques (3)
*4309 General Microbiology (4)
440 Clinical Physiology (3)

442 Clinical Laboratory Management (1)
443 Urinalysis (1)
444 Immunochemistry and Hematology (2)
B 445 Immunology (3)
446 Immunology Laboratory (1)
Notes:

1. BIOL 241 and 242 should be taken prior to BIOL 201, 307, 308 and 310.
2. BIOL 308 and 310 should be taken prior to or concurrently with BIOL 307 or 311.
3. BIOL 323 should be taken after BIOL 201 and should be taken prior to or concurrently with BIOL 324.
4. BIOL 409, 440, 442, $443,444,445$, and 446 should be taken after BIOL 308 and 310 .

ADDITIONAL REQUIREMENTS (23 S.H.)

* CHEM 212 Principles of Chemistry I (4)
* CHEM 213 Principles of Chemistry II (4)

CHEM 340 Organic Chemistry Survey (4)
CHEM 400 Biochemistry I (4) OR CHEM 425 Analytical Chemistry I (4)
MATH 120 Precalculus (4)
伦 STAT 305 Biometry (3)

## Notes:

1. MATH 150 and MATH 155 ( 6 S.H.) may be substituted for MATH 120.
2. CHEM 350 and 351 ( 9 S.H.) may be substituted for CHEM 340.

CLINICAL EDUCATION (16 S.H.)
BIOL 450 Medical Technology I (12)
BIOL 453 Medical Technology IV (4)
Note: The clinical training will be completed at an affiliated 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 "Additional Requirements" above.

## COMMUNICATION STUDIES

Performing Arts Center, Room 215 (507-457-5230)
www.winona.edu/communicationstudies
Rita Raboi-Gilchrest (Chairperson)

## FACULTY

Emilie Falc, Assistant Professor; BA, University of Illinois; MA, PhD, Ohio University; 2001 -
Lisa Glueck, Associate Professor; BA, MA, Washington State University, Pullman; PhD, University of Wisconsin; 1993 -
Susan Hatfield, Professor; BS, MA, Miami University (OH); PhD, University of Minnesota-Twin Cities; 1981 -
Amy Hermodson, Associate Professor; BA, Concordia College; MA, Michigan State University, PhD, University of Denver; 2000 -
Kelly Herold, Associate Professor; BCS, Dickinson State University (ND); MA, University of Northern Colorado, Greeley; PhD, University of Southern Mississippi, Hattiesburg; 1996 -
Daniel Lintin, Associate Professor; BA, Buena Vista College; MA, PhD, University of Minnesota-Twin Cities; 1994 -
Rita Rahoi-Gilchrest, Professor; BA, University of Wisconsin; MA, PhD, Ohio University; 2000 -
Edward Reilly, Associate Professor; BA, Northern Illinois University; MA, University of Maine; PhD, Louisiana State University; 1997 -
Tammy Swenson Lepper, Associate Professor; BA, Concordia College; MA, PhD, University of Minnesota-Twin Cities; 2004 -
Jin Xu, Associate Professor; BA, Changsha Tiedao University, China; MA, Southwest China Normal University, China; MS, PhD, Bowling Green State University; 2004 -

## DEPARTMENT MISSION

The department's mission is to prepare students to meet complex communication challenges across cultural, organizational, relational, and rhetorical contexts in the dynamic 21st century. In support of this mission, the faculty introduces students to relevant theories and concepts and provides skill-building, collaboration, and scholarship experiences that promote conscious communication competence in students' personal and professional development. To this end, the Communication Studies faculty seeks to model positive professional communication practices, a respect for diversity, and a commitment to service and lifelong learning.

## CURRICULUM

The Department of Communication Studies (CMST) provides academic experiences conducive to intellectual, professional, and personal growth. Excellence in communication is widely recognized as being key to personal and professional success. The department offers a major and minor in communication studies, as well as a minor in intercultural communication. CMST also offers a teaching major in collaboration with the English Department (CALT major); those requirements are listed in the English Department's section of the catalog.

## MAJORS AND MINORS

Graduates in communication studies are well prepared for employment in a dynamic 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, health sciences, history, mass communication, nursing, political science, psychology, 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 professional development and social activities.

## SCHOLARSHIPS AND HONORS RECOGNITION

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 honors recognition. 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, the department sponsors a chapter of Lambda Pi Eta, the undergraduate honorary society of the National Communication Association.

## 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 (m)
CMST 451 Topics in Communication Studies (3)
CMST 452 Topics in Public Communication (3)
Math/Critical Analysis (fu)
CMST 380 Communication Research Methods (3)

| Writing (®) |  |
| :---: | :--- |
| CMST | 366 |
| CMST | Organizational Communication (3) |
| CMST | 489 |
| Persuasive Communication (3) | 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.

## BA 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 Theory (3)
CMST 283 Introduction to Rhetorical Studies (3)

## Tools (9 S.H.)

解 CMST 380 Communication Research Methods (3) Choose one of the following:
To ECON 222 Statistics for Business and Economics (3)
旳 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)
B ENG 439 Technical Writing (3)
Theories (9 S.H.)
Choose three of the following:
B CMST 366 Organizational Communication (3) CMST 371 Small Group Communication (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

* 4 CMST 452 Topics in Public Communication (3)

Capstone (3 S.H.)
ह 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 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.

BA MINOR - COMMUNICATION STUDIES (CS)
21 S.H.

## REQUIRED COURSES (12 S.H.)

## Foundations (6 S.H.)

CMST 282 Introduction to Communication Theory (3)
CMST 283 Introduction to Rhetorical Studies (3)
Foundations/Theories (6 S.H.)
Choose two of the following: CMST 281 Intercultural Communication (3)
m CMST 366 Organizational Communication (3) CMST 371 Small Group Communication (3)
CMST 375 Argumentation and Advocacy (3)
CMST 387 Interpersonal Communication (3)
B 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 451 and/ or 452 can be used more than once provided they cover different topics. Foundations/theories courses not used for the foundations and/or theories requirement as listed above may be used to meet the elective requirement.

## BA 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 Theory (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 and 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)
213 Cultural Geography (3)
223 Geography of the Orient (3)
224 Geography of Africa (3)
225 Geography of Latin America (3)
233 Geography of the Middle East (3)

## Global Studies - GS

200 Introduction to Global Studies
History - HIST
123 East Asian Civilization (3)
165 Latin American History (3)
170 African Civilization (3)
235 History of the American Indian (3)
320 North American Indian Civilization (3)
341 Modern Japan (3)
461 Latin American Social Revolution (3)
463 History of Mexico (3)
469 History of Brazil
Political Science - POLS
224 Politics and Society in Latin America (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)
390 Comparative Politics - Third World (3)
Sociology - SOC
340 Social-Cultural Anthropology (3)
423 Race Relations and Minority Groups (3)

## BS MAJOR - COMMUNICATION ARTS AND LITERATURE (TEACHING) (CALT)

Requirements for this major are listed in the English Department program description (page 102).

## COURSE DESCRIPTIONS - CMST

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 Theory (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 builds on the foundation of CMST 191 by emphasizing theories and a primarily social-scientific approach in addition to presentation 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, resolution, and mediation. 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 every third semester.
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, change, climate formation, culture and action. Prerequisites: CMST 191 and 282 or instructor's permission for nonmajors. Offered yearly.

371 - Small Group Communication (3 S.H.)
The study of interaction patterns and networks to gain practical and theoretical perspectives upon small group interaction. Prerequisites: CMST 191 and CMST 282 or instructor's permission for non-majors. Offered yearly.

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 CMST 283 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 and completion of (or concurrent enrollment in) one of the following statistics courses: ECON 222, PSY 231, STAT 110, STAT 210, or instructor's permission. (See list of theory courses in the description of the 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 yearly.
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 yearly.

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 all semesters and summer sessions.

451 - Topics in Communication Studies (3 S.H.)
An in-depth study of contemporary issues or research in public communication. 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 in
communication studies. 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 cocurricular 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.

## COMPOSITE MATERIALS ENGINEERING

Stark Hall, Room 203 (507-457-5685)
www.winona.edu/engineering
Beckry Abdel-Magid (Chairperson)

## FACULTY

Beckry Abdel-Magid, Professor; BS, University of Khartoum; MS, PhD, University of Wisconsin-Madison; 1990-
Keith Dennehy, Professor; BS, Rensselaer Polytechnic Institute; MS, Youngstown State University; MBA, University of Utah; PhD, Rensselaer Polytechnic Institute; 1990 -
Maryam Eslamloo-Grami, Professor; BS, MS, Shiraz University, Iran; PhD, University of California-Davis; 1993 -
Fariborz Parsi, Professor; BS, MS, PhD, University of South Carolina, Columbia; 1991 -
Saced Ziaee, Assistant Professor; BS, PhD, University of Texas at Austin; 2003 -

## PURPOSE

The Department of Composite Materials 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 is the only accredited undergraduate program in the United States that offers a Bachelor of Science degree in composite materials engineering. Majors in the program may choose to focus on the design, analysis, and manufacture of composite structures (mechanical focus); or on the development, processing, and chemistry of the materials used in composites including fibers, matrices and fiber/matrix systems (chemical focus).

## MISSION/OBJECTIVES/OUTCOMES

The mission of the CME Program is "to develop creative minds and innovation in the field of composite materials through education, applied research, and scholarly pursuits in collaboration with the composites industry and community."

- 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 Composite Materials Engineering recommends that high school preparation for the CME major 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 Composite Materials 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, and chemistry 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 courses required for admission into the CME Programand have a minimum GPA of 2.5 in these required courses. Students will not be allowed to enroll in upper-division 300-level engineering courses until either they are admitted into the major or they are granted special permission from their Department of Composite Materials 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 Composite Materials 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 to meet the 128 -credit requirement.

## 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 three composite materials
engineering courses (3):
CME 102 Introduction to Engineering
CME 390 Composites Manufacturing
CME 480 Design Project II
Global or Multicultural Perspectives (3)
IV. Flag Courses (13 S.H.)
$\dagger$ Oral Flag: A sequence of two composite materials engineering
courses (3):
CME 475 Design Project I
CME 491 Engineering Seminar
Math/Critical Analysis Flag: MATH 260 Multivariable Calculus (4)
$\dagger$ Writing Flag: A sequence of four composite materials engineering courses (6):
CME 285 Properties of Materials
CME 394 Polymer Science and Characterization
CME 451 Transport Phenomena Lab
CME 452 Mechanical Characterization Lab
$\dagger$ 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 passing an exam or by successfully completing upper-level foreign language courses.

BS MAJOR - COMPOSITE MATERIALS ENGINEERING (CME) 106 S.H. (No Minor Required)

## CORE REQUIREMENTS (97 S.H.)

## OWER-DIVISION (56 S.H.)

Mathematics - MATH (16 S.H.)
160 Calculus I (4)
165 Calculus II (4)
260 Multivariable Calculus (4)
270 Differential Equations \& Linear Algebra (4)
Chemistry - CHEM (12 S.H.)
212 Principles of Chemistry I (4)
213 Principles of Chemistry II (4)
340 Organic Chemistry Survey (4)
Physics - PHYS (8 S.H.)
221 University Physics I (4)
222 University Physics II (4)
Engineering - CME (20 S.H.)
102 Introduction to Engineering (2)
182 Engineering Graphics and Design (2)
210 Computer Applications in Engineering (3)
250 Statics (3)
260 Mechanics of Materials (3)
270 Dynamics (3)
285 Properties of Materials (4)

## UPPER-DIIIISION (41 S.H.)

## Mathematics (3 S.H.)

STAT 303 Introduction to Engineering Statistics (3)

## Chemistry - CHEM (3 S.H.)

410 Polymer Chemistry (3)
Physics - PHYS (3 S.H.)
302 Electrical Circuits \& Systems (3)
Engineering - CME (32 S.H.)
300 Thermodynamics (3)
350 Fluid Mechanics (3)
360 Introduction to Composites Materials (3)
370 Heat and Mass Transfer (3)
390 Composites Manufacturing (3)
394 Polymer Science and Characterization (3)
401 Engineering Economics (1)
450 Mechanics of Composites (3)
451 Transport Phenomena Laboratory (1)
452 Mechanical Characterization Laboratory (2)
475 Design Project I (3)
480 Design Project II (3)
491 A/B Engineering Seminar (1)

## TECHNICAL ELECTIVES ( 9 S.H.)

Engineering Electives - CME (6 S.H.)
410 Polymer Processing (3)
420 Manufacturing Systems Analysis (3)
430 Rheology (3)
460 Introduction to Finite Element Analysis (3)
485 Advanced Microscopic Techniques (3)
499 Independent Study (1-3)
Non-Engineering Electives (3 S.H.)
CHEM 411 Synthesis and Characterization of Polymers (3)
CHEM 412 Physical Chemistry I (3)
MATH 340 Advanced Linear Algebra (3)
MATH 420 Numerical Analysis (4)
STAT 321 Industrial Design of Experiments I (3)
PHYS 330 Electronics (4)
PHYS 420 Control Theory (3)
GENERALIZED CLASS SCHEDULE
Freshman Year- Fall (17 S.H.)
CME 102 Introduction to Engineering (2)
CHEM 212 Principles of Chemistry I (4)
MATH 160 Calculus I (4)
ENG 111 College Reading and Writing (4)
University Studies (3)
Spring (17 S.H.)
CME 182 Engineering Graphics and Design (2)
CHEM 213 Principles of Chemistry II (4)
MATH 165 Calculus II (4)
PHYS 221 University Physics I (4)
CMST 191 Introduction to Public Speaking (3)
Sophomore Year - Fall (17 S.H.)
CME 210 Computer Applications in Engineering (3)
CME 250 Statics (3)
MATH 260 Multivariable Calculus (4)
PHYS 222 University Physics II (4)
University Studies (3)
Spring (18 S.H.)
CME 260 Mechanics of Materials (3)
CME 270 Dynamics (3)
CME 285 Properties of Materials (4)
CHEM 340 Organic Chemistry Survey (4)
MATH 270 Differential Equations and Linear Algebra (4)
Junior Year - Fall (15 S.H.)
CME 300 Thermodynamics (3)
CME 350 Fluid Mechanics (3)
CME 360 Introduction to Composite Materials (3)

CHEM 410 Polymer Chemistry (3)
STAT 303 Introduction to Engineering Statistics (3)
Spring (15 S.H.)
CME 370 Heat and Mass Transfer (3)
CME 390 Composites Manufacturing (3)
CME 394 Polymer Science and Characterization (3)
PHYS 302 Electrical Circuits and System (3)
Technical Elective (3)
Senior Year - Fall (15 S.H.)
CME 401 Engineering Economics (1)
CME 450 Mechanics of Composites (3)
CME 452 Mechanical Characterization Laboratory (2)
CME 475 Design Project I (3)
CME 491A Engineering Seminar (0)
University Studies (3)
University Studies (3)
Spring (14 S.H.)
CME 451 Transport Phenomena Laboratory (1)
CME 480 Design Project II (3)
CME 491BEngineering Seminar (1)
Technical Elective (3)
Technical Elective (3)
University Studies (3)

## COURSE DESCRIPTIONS - CME

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.)
Overview of engineering and various engineering disciplines with emphasis on composite materials engineering, introductory hands-on experience with composites, elementary concepts of engineering science, ethical aspects of engineering, and safety and environmental issues regarding the use of chemicals. 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 reading of drawings. Grade only.

## 210- Computer Applications in Engineering (3 S.H.)

A lecture-laboratory course. Formulate an overall solution algorithm and solve engineering and scientific problems utilizing spreadsheets and mathematical software. Topics include engineering and scientific problems that employ statistics, algebra, calculus, linear algebra, and optimization in their solutions. Use of computers as a mean for technical communication is stressed. Prerequisite: MATH 160. 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 students' 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: CME 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: CME 250, PHYS 222, and credit or concurrent registration in MATH 270. Grade only.

## 285 - Properties of Materials (4 S.H.)

A lecture-laboratory course. Introduction to structure-property relationships of engineering materials. Classification of materials, atomic structure and bonding, crystal structures, imperfection in solids, stress-strain behavior and hardness of metals, phase diagrams, structure and properties of ceramics, polymer structures, stress-strain behavior of polymers, and corrosion of
materials. Laboratory: crystal structures; X-ray diffraction; determination of tensile, hardness, microhardness, microstructure, and corrosion properties of metallic materials. Technical writing is an integral part of the course.
Prerequisites: ENG 111 and CHEM 213. Grade only.
300 - Thermodynamics (3 S.H.)
Basic concepts, First and Second Law of Thermodynamics, properties and phase changes of pure substances, ideal gases, energy analysis of closed and open systems, enthalpy, entropy, reversibility, and Carnot and gas power
cycles. 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, and application of fluid flow in composite materials manufacturing. 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: CME 285 and credit or concurrent registration in CHEM 340 or CHEM 410. Grade only.

## 370 - Heat and Mass Transfer (3 S.H.)

Conduction, convection and radiation, heat transfer and analysis of heat exchanger, Fick's Law, molecular diffusion and convection. Prerequisite: CME 350. 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 nonpolymeric composite materials. Prerequisite: CME 360 . Grade only.

## 394 - Polymer Science and Characterization (3 S.H.)

A lecture-laboratory course. Investigate and determine thermal and physical properties of thermoplastics, thermosets, and their blends to get insight into their thermodynamic state and morphology. Correlate kinetics of cure to macroscopic behavior of thermosets. Theories discussed in the course include group contribution technique, polymer miscibility, and phase separation. Technical writing is an integral part of this course. Prerequisites: CHEM 340 and CME 285. Grade only.
401 - Engineering Economics (1 S.H.)
Fundamentals of engineering economics. Topics include interest and time value of money; annual, discrete, and continuous compounding; rate of return, payback period, and investment alternatives. 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. Environmental aspects of polymers. Prerequisite: CME 350. Grade only. Offered a minimum of once every two years.

420 - Manufacturing Systems Analysis (3 S.H.)
Evolution of the manufacturing system. Functions and interactions in a manufacturing system. Analytical tools used in evaluating a manufacturing system. Simulation as a tool for analyzing a manufacturing system.
Prerequisite: CME 390. Grade only. Offered a minimum of once every two years.

430 - Rheology (3 S.H.)
A lecture-laboratory course. Stress and strain, Newtonian and nonNewtonian fluids, rheological equations of state, viscometric flows, viscoelasticity, fluid mechanics of rheometry, plastic melt and suspension rheology. Prerequisite: CME 350. Grade only. Offered a minimum of once every two years.

450 - Mechanics of Composites (3 S.H.)
Micromechanics of composite materials. Behavior and mechanical properties of unidirectional composites. Study of failure modes, hygrothermal and transport properties. Stress transfer, stiffness and strength properties of short fiber composites. Generalized Hooke's Law and stress-strain relations of an orthotropic lamina. Stiffness and strength criteria of orthotropic composite materials. Laminated Plate Theory. Composites Design. Prerequisites:
MATH 270, CME 260, and CME 360. Grade only.
451 - Transport Phenomena Laboratory (1 S.H.)
A lecture-laboratory course. Selected concepts and experiments in momentum, heat and mass transfer. Prerequisites: CME 350, CME 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, CME 260, and CME 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. Use of direct stiffness and potential energy methods in formulation of truss, beam, plain stress, axisymmetric and isoparametric elements. Algorithms for construction and solution of the governing equations, modeling, numerical errors and convergence, solution, and interpretation of results. Prerequisites: CME 260, MATH 270, and CME 210. Grade only. Offered a minimum of once every two years.

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: CME 390. Grade only.

485 - Advanced Microscopic Techniques (3 S.H.)
A lecture-laboratory course. Theory and application of scanning electron microscope. Overview of theory applications of selected current surface and microanalysis techniques including the atomic force microscope. Comparisons are made to optical microscopy. Theory and application of X-ray diffraction. Explores the relationships among chemistry, microscopic structure, and properties of engineering materials. Qualitative X-ray microanalysis of metal matrix composites. Emphasis on technical writing of laboratory reports. Prerequisite: CME 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 CME 491A in order to receive credit for CME 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 Composite Materials Engineering. Grade only.

## COMPUTER SCIENCE

Watkins Hall, Room 103 (507-457-5385)
http://cs.winona.edu
Tim Gegg-Harrison (Chairperson)
FACULTY
Nicole Anderson, Assistant Professor; BS, MS, University of Iowa; PhD, University of Utah; 2008 -
Gary Bunce, Professor; BS, North Dakota State University; MA, PhD, University of New Mexico; 1971 -
Gerald W. Cichanorwski, Professor; BA, Winona State University; MS, University of Minnesota; PhD, Michigan State University; 1983 -
Narayan Debnath, Professor; BS, MPhil, Calcutta University; MS, Visva Bharati University; MS, East Carolina University; MS, Ohio State University;
PhD, DSc, Jadavpur University; 1989 -
Joan Francioni, Professor; BS, University of New Orleans; MS, PhD, Florida State University; 1998 -
Tim Gegg-Harrison, Professor; BA, University of Missouri-Columbia; MS, Ohio State University; PhD, Duke University; 1992 -
Sudharsan Iyengar, Professor; BE, Burdwan University; MS, PhD, Louisiana State University and A \& M College; 1989 -
Chi-Cheng Lin, Professor; BS, National Chiao-Tung University; MS, University of Minnesota-Duluth; PhD, University of Pittsburgh; 1997 -
Hugh F. Ouellette, Professor; BS, Western Montana College; MA, University of Illinois; MA, Ball State University; EdD, University of Northern
Colorado; 1972 -
Paul Schumacher, Associate Professor; BA, MEd, St. Mary's College of Minnesota; MAT, Stanford University; 1988 -
Mingrui Zhang, Professor, BSEE, Beijing University; MSCS, PhD, 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 MAJOR

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, Geographic Information Technology, and Human Computer Interaction.

- 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 (CIS) 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.
- 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.
- 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.


## 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 23. 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 of 300 - and 400 -level CS courses, with at least 12 credit hours beyond the computer science core requirements, 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 grade of "C" 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.

## WSU-ROCHESTER

Some of the department's majors and the minor are available through the Path to Purple Program at WSU-Rochester. See the following sections for articulations of these programs (page 36).

Computer Information Systems
Computer Science
Computer Science - Bioinformatics

## 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 (M)
    CS 411 Software Testing (3)
    CS 471 Object Oriented Design and Development (3)
Math/Critical Analysis (fu)
    CS 341 Data Structures (3)
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Oral (")
CS 411 Software Testing (3)
CS 471 Object Oriented Design and Development (3)
CS 341 Data Structures (3)

| Writing (R) |  |  |
| :---: | :--- | :--- |
| CS |  |  |
| CS | Applied Database Management Systems (3) |  |
| CS | 410 | Software Engineering (3) |
| CS | 495 | Computer Science Research Seminar (3) |

By completing the Computer Science Core, computer science majors will satisfy all University Studies flag requirements and the Unity and Diversity areas of Critical Analysis and Science and Social Policy.

## BS 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）［USP：Critical Analysis］
250 Algorithms and Problem－Solving II（4）
275 Mathematical Foundations of Algorithms（4）
310 Social Implications of Computing（3）
［USP：Science and Social Policy］
时 341 Data Structures（4）
375 Computer Systems（4）
ह－ 385 Applied Database Management Systems（3）
B－ 410 Software Engineering（3）
w 471 Object Oriented Design and Development（3）

## COMPUTER SCIENCE ELECTIVES－Available to All Options

## Computer Science－CS

313 Networking and Telecommunications（3）
344 Introduction to Web Programming（3）［USP：Contemporary Citizenship］
366 Topics in Emerging Technologies（1－3）
Choose either of the following：
368 Introduction to Bioinformatics（3）OR
369 Spatial Information Processing（3）
405 Operating Systems（3）
［m） 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）
433 Digital Image Processing（3）
435 Theory of Computation（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）
467 Topics：Information Systems Applications（1－3）
468 Algorithms in Bioinformatics（3）
469 Algorithms in Geographic Information Technology（3）
472 Reusable Software Architectures（3）
476 Distributed System：Concepts and Design（3）
482 Internet／Web Architecture and Development（3）
485 Database Systems Design（3）
491 Practicum in Computer Science（6）$\ddagger$
B－ 495 Computer Science Research Seminar（3）

## Physics－PHYS

333 Microprocessor Electronics（4）
$\neq$ 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－CS（9 S．H．）

405 Operating Systems（3）
415 Principles of Programming Languages（3）
435 Theory of Computation（3）
Mathematics－MATH（8 S．H．）
160 Calculus I（4）
165 Calculus II（4）
Physics－PHYS（2 S．H．）
332 Computer Organization（2）

## ELECTVES（18 S．H．）

－Choose from list of＂Computer Science Electives＂above 2 except for CS 405，CS 415，and CS 435
－At least four of the six 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－MATH（4 S．H．）
160 Calculus I（4）
Statistics－STAT（3 S．H．）
Choose one of the following courses：
210 Statistics（3）
303 Introduction to Engineering Statistics（3）
305 Biometry（3）
Computer Science－CS（15 S．H．）
368 Introduction to Bioinformatics（3）
468 Algorithms in Bioinformatics（3）
485 Database Systems Design（3）
CS electives 6 S．H．other than CS 440 and CS 469；at least 3 S．H．at the
400－level
Biology－BIOL（11 S．H．）
241 Basics of Life（4）
242 Organismal Diversity（4）
解 310 Genetics（3）
Track Electives（3 S．H．）
Choose one of the following CHEM courses：
340 Survey of Organic Chemistry（4）
350 Principles of Organic Chemistry I（4）
Any 400 －level CS electives course，other than CS 440 and CS 469
University Studies Program Required Courses－CHEM（ $1 \dagger$ S．H．）
＊ 212 Principles of Chemistry I（4）［USP：Natural Sciences］
＊ 213 Principles of Chemistry II（4）［USP：Natural Sciences］
$\dagger 7$ 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－MATH（3 S．H．） 140 Applied Calculus（3）
Statistics（3 S．H．）
Choose one of the following courses：
昀ECON 222 Statistics for Business and Economics（3） STAT 210 Statistics（3）
Computer Science－CS（15 S．H．）
Choose two of the following three courses：
344 Introduction to Web Programming（3）［USP：Contemporary Citizenship］
472 Reusable Software Architectures（3）
482 Internet／Web Architecture and Development（3）

Additional Required Course:
485 Database System Design (3)
Electives 6 S.H.; at least 3 S.H. at the $400-1$ level
Accounting-ACCT (3 S.H.)
212 Managerial Accounting Principles (3)
Management Information Systems - MIS (3 S.H.)
362 Management Information Systems (3)
Track Electives (9 S.H.)
Choose three of the following courses (excluding ECON 201/202 taken
below):
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)
MGMT 334 Operations Management (3)
ß MGMT 325 Organizational Dynamics (3)
University Studies Program Required Courses ( $0 \dagger$ 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]
$\dagger 6$ 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 of these may count as the CS electives for this track.)


## TRACK 3: GEOGRAPHIC INFORMATION TECHNOLOGY (CSAG) 37 S.H.

Mathematics - MATH (4 S.H.)
160 Calculus I (4)
Statistics - STAT (3 S.H.)
Choose one of the following courses:
210 Statistics (3)
303 Introduction to Engineering Statistics (3)
Computer Science - CS (15 S.H.)
369 Spatial Information Processing (3)
433 Digital Image Processing (3)
469 Algorithms in Geographic Information Technology (3)
CS electives 6 S.H. other than CS 440 and CS 468; at least 3 S.H. at the
400-level
Geoscience and Geography (14 S.H.)
GEOS 240 Watershed Science (4)
— GEOS 280 Field \& Analytical Methods I (2)
Choose 2-3 of the following courses:
GEOG 450 Cartography (3)
GEOS 315 Surficial Processes \& Soils (4)
GEOS 325 Environmental Science (3)

* GEOS 370 GIS and Imaging Techniques (3)

时 GEOS 405 Current Topics (1-3)
To GEOS 415 Advanced Geomorphology (4)
GEOS 420 Applied Hydrogeology (4)
GEOS 425 Global Climate Change (3)
University Studies Program Required Courses ( $1 \dagger$ S.H.) GEOS 120 Dynamic Earth (4) [USP: Natural Sciences] GEOS 130 Earth and Life through Time (4) [USP: Natural Sciences]
$\dagger 7$ 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 of these may count as the CS electives for this track.)


## TRACK 4: HUMAN COMPUTER INTERACTION (CSAH)

37 S.H.
Mathematics - MATH (4 S.H.)
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)
解 PSY 231 Statistics (3)
Computer Science - CS (15 S.H.)
344 Introduction to Web Programming (3) [USP: Contemporary Citizenship]
444 Human-Computer Interaction (3)
CS electives 9 S.H.; at least 6 S.H. at the $400-\mathrm{level}$
Psychology - PSY (9 S.H.)
335 Human Factors Psychology (3)
369 Cognitive Psychology (3)
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
260 (Graphic Design I) or ART 265 (Graphic Design II)
University Studies Program Required Courses ( $0 \dagger$ S.H.)

* PSY 210 Introduction to Psychological Science (3) [USP: Social Science]
* SOC 150 Introduction to Sociology (3) [USP: Social Science]

STAT350 Design of Samples and Surveys (3) [USP: Contemporary Citizenship]
$\dagger 9$ 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.)


## BS MINOR - COMPUTER SCIENCE (COMS)

26 S.H.
The computer science minor is designed to provide students with a solid understanding of computer science. Students will gain the knowledge and skills to apply computer programming techniques to their major field of study. The courses included in the computer science minor are the introductory programming sequence for CS majors along with mathematics and upper-level computer science major elective courses.

## REQUIREMENTS (11 S.H.)

Choose one of the following two courses $\dagger$ :
CS 130 Introduction to BASIC Programming (3)
CS 150 An Overview of Computer Science (3)
Additional Required Courses:
CS 234 Algorithms and Problem-Solving I (4)
CS 250 Algorithms and Problem-Solving II (4)
$\dagger$ Students who are prepared for calculus and take CS 234 as their first computer science course may choose to take a 300 - or 400 -level CS course in place of the CS 130/150 course requirement.

## ELECTIVES (15 S.H.)

Choose 15 S.H. from any of the following:
CS 275 Mathematical Foundations of Algorithms (4) $\ddagger$
Computer Science courses numbered 300 or above

Any one of the following courses:
MATH 140 Applied Calculus (3)
MATH 155 Modeling Using Calculus (3)
MATH 160 Calculus I (4)
$\ddagger$ Math majors may substitute MATH 210 for the CS 275 course requirement.

BS MINOR - COMPUTER TECHNOLOGY (COMT)
18 S.H.
The Computer Technology minor is designed to provide students with a solid understanding of computer technology. Students will gain both the skills and confidence necessary to use computer technology appropriately and effectively for problems in their disciplines. The courses included in this minor are all non-major computer science courses and, for the most part, are University Studies courses.

## REQUIREMENTS (15 S.H.)

CS 110 Computers in a Global Society (3) [USP: Science and Policy]
CS 115 Computer Systems and Internet Technology (3) [USP: Contemporary Citizenship]
CS 116 Web Technology I (3) [USP: Contemporary Citizenship]
Choose one of the following courses:
CS 130 Introduction to BASIC Programming (3) [USP: Critical Analysis]
CS 150 An Overview of Computer Science (3) [USP: Critical Analysis]
CS 216 Web Technology II (3) [USP: Critical Analysis]
Choose one of the following courses:
CS 295 Computer Technology Project (3)
CS 395 Community-Based Computer Technology Project (3)

## ELECTIVES (3 S.H.)

Approved 300- or 400-level course in the student's major. Course must meet the following requirements:

- Course material must be relevant to the CS 295/395 project.
- Course must be taken at least one semester prior to CS 295/395.
- A faculty member in the student's major department must approve the course as relevant to the proposed CS 295/395 project.


## COURSE DESCRIPTIONS <br> COMPUTER SCIENCE - CS

## 110 - Computers in a Global Society (3 S.H.)

This course exposes students to some of the basic scientific foundations of computer technology to help them understand the societal implications 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.

## 115 - Computer Systems and Internet Technology (3 S.H.)

This course provides students with a broad overview of the principles of, and effective strategies for, navigating computer systems, servers and the Internet. Topics include file maintenance; operating systems; general applications (word processors, spread sheets, electronic presentations, databases); web-based applications; security; and multimedia. Emphasis will be placed on navigating systems in safe and effective ways as well as maintaining personal systems (desktops or laptops). Course does not count for major elective credit.

116-Web Technology I (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 CSS (cascading style sheets) and HTML (hypertext) markup 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 problemsolving, 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.

## 216 - Web Technology II (3 S.H.)

This course is a continuation of the web technology concepts introduced in CS 116. Students will learn how to make their websites more dynamic while at the same time learning basic programming skills using the JavaScript programming language. Students should be familiar with HTML and CSS, but no other programming experience is necessary for this course. Prerequisite: CS 116.

234 - Algorithms and Problem-Solving I (4 S.H.)
An introduction to the major concepts of algorithm design and problemsolving. 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, 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. 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. P/NC 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. Prerequisite: CS 234.

## 251 - Algorithms II Companion (1 S.H.)

Course reinforces students' algorithm design and programming skills in the context of CS 250. 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. P/NC only.

## 275 - Mathematical Foundations of Algorithms (4 S.H.)

The formal study of the mathematical foundations of algorithms. This course provides students with an algorithm-based introduction to discrete mathematical structures and their application to computer science. Topics include sets, relations, graphs, proof techniques, induction, recursive definitions, and recurrence relations. Applications include the correctness and complexity of algorithms. This course is equivalent to MATH 275. Students may receive credit for either CS 275 or MATH 275, not both. Prerequisites: CS 234 and MATH 140 or MATH 155 or MATH 160, or instructor's permission.

295 - Computer Technology Project (3 S.H.)
This course gives students an opportunity to apply their computer
technology knowledge to a project directly related to their major. Students will design and implement their own projects; however, the projects must be relevant to specific course content in the student's major. Students will learn how to develop functional requirements, solution designs, implementation timelines, and maintenance plans for their project. Projects must be preapproved by both the course instructor and a faculty member in the student's major department. Final presentations of all projects will be part of the course. Prerequisites: CS 110, CS 115, CS 116, and either CS 130, CS 150, or CS 216 and an approved 300- or 400-level course in the student's major. 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.

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. Prerequisites: CS 250 and ENG 111.
313 - Networking and Telecommunications (3 S.H.)
A stdy of 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. Prerequisites: CS 250 and one $300-$ level CS course.

## 341 - Data Structures (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. Prerequisites: CS 250 and CS 275.
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), and 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.
366 - Topics in Emerging Computing Technologies (1-3 S.H.)
This course is a topics course that is focused on emerging computing technologies. Topics may include computer gaming, data exchange and integration, social computing, mobile computing, robotics, etc. Students will gain exposure to these technologies to enrich their study in the field of computer science. Case studies will be used to connect computer science concepts to real-world problems. Prerequisite: CS 250 or instructor's permission. May be repeated for credit. Offered according to demand.

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. Prerequisites: 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. Prerequisites: 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. Prerequisites: CS 250 and ENG 111.

395 - Community-Based Computer Technology Project (3 S.H.) In addition to the requirements of CS 295, this course requires a communitybased focus to the project. Students will choose a community organization (with assistance from the course instructor as needed) and complete a computer technology project developed in cooperation with their site supervisor and the course instructor. It is expected that students will spend time volunteering at the project site during the semester. Prerequisites: CS 110, CS 115, CS 116, CS 130, or CS 150, and an approved 300 - or 400 -level course in the student's major.

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. Prerequisites: 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 softwareintensive 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. Prerequisites: CS 341 and ENG 111.

## 411 - Software Testing (3 S.H.)

An introduction to various software testing techniques and analysis that have 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 and CMST 191.

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. Prerequisites: 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.

## Prerequisites: 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. Prerequisites: 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. Prerequisites: CS 250 and CS 275.

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; $\mathrm{P}, \mathrm{NP}$, and NPcomplete 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. Prerequisites: 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.)
A study of 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. Prerequisites: 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 indepth view of a specific problem or technique is given. Topics may include statistical problems, the Simplex model, O/1 knapsack, Divide and Conquer, etc. Prerequisites: Junior or senior standing and instructor's permission. May be repeated for credit. Offered according to demand.

467 - Topics: Information Systems 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. Prerequisites: 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. Prerequisites: 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. Prerequisites: 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. Prerequisites: 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. 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. Prerequisites: 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. Prerequisites: CS 341 and CS 385.
490 - Independent Problems in Computer Science (1-3 S.H.)
An opportunity to continue the study of selected topics. Prerequisite: Instructor's permission. Offered according to demand.
491 - Practicum in Computer Science (6 S.H.) 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. Prerequisites: ENG 111, CS 341, and 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. Prerequisites: 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), computermanaged instruction (CMI), information retrieval, programming languages, software evaluations, and elementary computer literacy curriculums.
Prerequisite: Instructor's permission. 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. May 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)
WSU-Rochester, Room EA 201 (507-285-7488; Fax: 507-285-7170)
www.winona.edu/counseloreducation
Gaylia Borror (Chairperson)

## FACULTY

Gaylia Borror, Professor; BS, Davis \& Elkins College; MS, West Virginia University; PhD, University of Iowa; 1989 -
Cynthia Brigys, Assistant Professor; BS, Guilford College; MA, Wake Forest University; PhD, Oregon State University; 2006 -
Mary Fawcett, Associate Professor; BA, University of North Carolina; MA, Appalachian State University; PhD, University of South Carolina; 1999-
Jo Hittner, Assistant Professor; BA, Mary College; MA, PhD, University of North Dakota; 2009 -
Veronica Johnson, Assistant Professor; BA, MA, EdD, University of Montana; 2009 -

## 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 - CE

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 (.5-4 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://www.winona.edu/biology/
WSU DIRECTOR, CYTOTECHNOLOGY
Edward Thompson, Professor; BA, Macalester College, St. Paul; PhD, Medical College of Wisconsin, Milwaukee; 1992 -

## ADJUNCT FACULTY

Mayo School of Health-Related Science, Rochester, MN
Jill Caudill, MEd, CT, (ASCP), Education Coordinator
John Goellner, MS, Medical Director
Marshfield Medical Center, Marshfield, WI
Virginia R. Narlock, PhD, CLS (ASCP) Program Director, Laboratory
George Rupp, MD, 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 Pathology (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 (M) |  |  |
| 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 (f-s) |  |  |
| BIOL |  | 310 | Genetics (3)

```
Writing (F)
    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)
    BIOL 499 Capstone Project (1-3)
```

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.

BS MAJOR - CYTOTECHNOLOGY (CYTO)
82 S.H. (No Minor Required)

| REQUIRED | MAJOR AREA COURSES (31 S.H.) |  |
| :---: | :---: | :--- |
| BIOL | 241 | Basics of Life (4) |
| BIOL | 242 | Organismal Diversity (4) |
| B BIOL | 308 | Cell Biology (3) |
| Fも BIOL | 30 | Genetics (3) |
| miOL | 307 | Cell Biology Laboratory (1) OR |
| BIOL | 311 | Genetics Laboratory (1) |
| BIOL | 201 | Human Anatomy (4) |
| B BIOL | 323 | General Physiology (4) |
| miOL | 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 ELECTVES ( 7 S.H.)

Choose at least 7 S.H. from the following courses:
$m$ BIOL 309 Developmental Biology (3)
巴 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

Somsen Hall，Room 319 （507－457－5165）
Daniel Kauffman（Chairperson）

## FACULTY

Matthew Hyle，Professor；BA，Indiana University；PhD，University of Maryland； 1988 －
Daniel E．Kauffman，Professor；BA，St．Cloud State University；MA，PhD，University of Nebraska－Lincoln； 1983 －
Gabriel Manrique，Professor；BA，Ateneo De Manila University；MA，Ohio University；PhD，University of Notre Dame； 1989 －
Vartan Safarian，Professor；BS，Pahlavi University；MS，MBA，Indiana University； 1983 －
Donald M．Salyards，Professor；BA，Graceland College；MA，PhD，Kansas State University； 1975 －
Wei－Choun（William）Yu，Assistant Professor；BA，National Taiwan University；MA，PhD，University of Washington； 2006 －
Marvin Wolfmeyer，Professor；BS，University of Missouri－Columbia；MS，PhD，University of Wisconsin－Madison； 1969 －

## PURPOSE

The WSU Department of Economics exists to develop professional business managers and public servants．Graduates are trained to use economic methods of analysis in a global economy．

## 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 23．Specific requirements for economics majors are as follows．
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.

## 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 Department offers the following flag courses in the University Studies Program：

```
Oral (m)
    ECON 499 Seminar in Economics (3)
Math/Critical Analysis (陌)
    ECON 222 Statistics for Business and Economics (3)
    ECON 322 Intermediate Statistics for Business and Economics (3)
```

```
Writing (ß)
    ECON 303 Intermediate Macroeconomics (3)
    ECON 304 Money and Banking (3)
```

Flag courses that can be used to satisfy economics major／minor requirements are identified in the lists of required courses and electives in this section．

## BA MAJOR－ECONOMICS（ECON） <br> 45－46 S．H．（Minor Required）

## REQUIRED COURSES（27－28 S．H．）

## Economics－ECON（18S．H．）

201 Principles of Microeconomics（3）
202 Principles of Macroeconomics（3）
302 Intermediate Microeconomics（3）
b． 303 Intermediate Macroeconomics（3）
B 304 Money and Banking（3）
＊499 Seminar in Economics（3）

## Statistics／Quantitative Tools（9－10 S．H．）

时 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：
解 ECON 222 Statistics for Business and Economics（3）OR
STAT 210 Statistics（3）
ELECTIVES（18 S．H．）
Additional credits at the 300－or 400－level in economics．

## BA MINOR－ECONOMICS（ECON）

24 S．H．

## REQUIRED COURSES－ECON（15 S．H．）

201 Principles of Microeconomics（3）
202 Principles of Macroeconomics（3）
302 Intermediate Microeconomics（3）
® 303 Intermediate Macroeconomics（3）
拖 304 Money and Banking（3）

## ELECTIVES（9 S．H．）

Additional credits at the 300－or 400－level in economics．

## COURSE DESCRIPTIONS－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；and 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.

220 －Applied International Development（3 S．H．）
The course provides an introduction to the economic，business，social，and political issues that confront developing countries，and solutions that have been utilized or proposed to confront these issues．This course is offered only in conjunction with a travel study program to a country or countries． The required travel study component of this course will provide students with the opportunity to learn first－hand about international development issues．Prerequisite：Instructor＇s permission．

## 222 －Statistics for Business and Economics（3 S．H．）

Elementary statistics for business and economics including descriptive measures，elementary probability，sampling of distributions，and statistical inference．Prerequisite：One of the following MATH courses：110，112， $115,120,130,140,150,155,160$ ，or 165.

## 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.

$$
\text { M = Oral Flag 阿 = Math/Critical Analysis Flag } \quad \text { B = Writing Flag }
$$

## 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: ECON 222 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. Recommended prerequisite: ECON 201.

## 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.

322 - Intermediate Statistics for Business and Economics (3 S.H.) A continuation of ECON 222, including Chi-Square Tests, regression and correlation, and analysis of variance. Prerequisite: ECON 222. Grade only.

340 - Quantitative Analysis for Business and Economics (3 S.H.) Quantitative analysis of decision-making problems in business and economics 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, and Markov analysis and simulation. Prerequisite: ECON 322. Grade only.

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 the economics major, but as general elective credit. Prerequisite: Concurrent enrollment in ECON 399. P/NC only.

## 399 - Internship Problem (3 S.H.)

Prerequisites: 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 prerequisite: ECON 222 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, 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 StatesCanada 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; and 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.

## EDUCATION

Gildemeister Hall, Room 152 (507-457-5350; Fax: 507-457-5354)
www.winona.edu/education/advising
Melanie Reap (Chairperson)

## FACULTY

Carrie Brouse, Assistant Professor, BS, MS, PhD, University of North Dakota; 2009 -
Donna Helble, Professor; BA, Simpson College, Iowa; MS, Winona State University; EdD, University of Northern Colorado; 1984 -
Melanie Reap, Associate Professor, BS, MS, Texas A \& M University; PhD, University of Oklahoma; 1999 -
J. Ann Rethlefsen, Associate Professor; BA, Colby College; MS, University of Wisconsin-Milwaukee; EdD, Saint Mary's University of Minnesota; 2004 -

Arne Sippola, Associate Professor; BA, Central Washington University; MA , University of Alaska; MEd, PhD, University of Washington; 2007 -
Penny Warner, Associate Professor; BS, MS, University of Wisconsin; PhD, University of Minnesota; 2000 -
Rod Winters, Associate Professor, BA, Central College; MA, University of Northern Colorado; EdD, University of Northern Iowa; 1998 -

## PROGRAMS

The Education Department offers licensure programs with the following options:

1. Elementary Education with Preprimary and Early Childhood Education ( Birth through grade 6)

Elementary Education (Kindergarten through Grade 6)
3. Elementary Education with the following specialty endorsement options (Kindergarten through Grade 8):

- Communication Arts/Literature, 5-8
- Mathematics, 5-8 or
- Science, 5-8 or
- Social Studies, 5-8

Note: When this catalog went to print, these licensures were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. For current information about licensure course requirements, contact the Education Department.

## 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. P/NC only. Offered each semester.

## 120 - Parenting (3 S.H.)

The social, emotional, physical, and intellectual development of children from birth to adolescence is outlined. Parenting strategies and childrearing practices are discussed. This course meets the requirements for USP: Contemporary Citizenship and Democratic Institutions. Grade only. Offered each semester.

## 299 - Latino and Latin American Perspectives (3 S.H.)

This course investigates Latino demographic growth in Minnesota and creates intercultural exchanges between WSU students and Latino K-12 students with Big Brothers Big Sisters of Greater Winona. The course will address issues pertinent to citizen development, such as communitybased learning and mentoring. Students will also learn about the history of racism, prejudice, and cultural deficit theory in the United States. Students will understand their own personal biases, where these biases came from, and how to think critically about contemporary issues pertinent to Latino populations in Minnesota. This course meets the requirements for USP: Contemporary Citizenship and Democratic Institutions. 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 (Pre-Kindergarten-3rd grade). Instructional emphasis is placed upon assessment, fluency, active construction of meaning, and matching learner capabilities with appropriate instructional strategies. Prerequisites: EFRT 303 or EFRT 304 and EFRT 310 or EFRT 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: EFRT 305 and EFRT 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, microteaching, unit planning, and the use of children's literature in the social studies curriculum are included in this course. Prerequisites: EFRT 303 and EFRT 310, EFRT 304 and EFRT 311, or EFRT 305 and EFRT 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: EFRT 303 and EFRT 310, or EFRT 304 and EFRT 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: EFRT 303 and EFRT 310, or EFRT 304 and EFRT 311, or SCIE 201. Offered each semester.

406 - Teaching and Learning in American Culture (2 S.H.) This course is designed exclusively for incoming international students who participate in the Winona State University Cross Cultural Outreach Scholarship Program. Students will learn about cultural differences in local schools, on the university campus, and in the community. During the course, students will learn how to effectively deliver presentations about their cultures and global themes to various audiences in local schools, on the university campus, and to community groups. Students will acquire knowledge and skills related to effective use of presentation enhancements such as PowerPoint, presentation board, and question/answer sessions. Grade only. Offered each semester.

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. Prerequisite: Admission to the teacher education program. Offered each semester.

$$
m=\text { Oral Flag } \quad \text { 呵 = Math/Critical Analysis Flag } \quad \mathrm{B}=\text { Writing Flag }
$$

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 twoyears with emphasis on care in group settings. Includes 30 -hour practicum experiences with infants and toddlers. Prerequisites: EFRT 303 and EDUC 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: EFRT 303 and EDUC 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: EFRT 303 and EDUC 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: EFRT 303, EDUC 410, and EDUC 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: EFRT 305 and EFRT 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.
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 will 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 will 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.

# EDUCATIONAL FOUNDATIONS, RESEARCH, AND TECHNOLOGY 

Gildemeister Hall, Room 152 (507-457-5350; Fax: 507-457-5354)
www.winona.edu/efrt
James Reineke (Chairperson)

## FACULTY

James Reineke, Associate Professor; BA, BS, University of Minnesota-Twin Cities; PhD, Michigan State University; 1996 -
Lloyd (Tom) Stevens, Assistant Professor; BS, Minnesota State University-Mankato; MA, University of Northern Iowa; 2007 -
Rhea Walker, Associate Professor; BS, MA, University of Northern Iowa; PhD, Iowa State University; 2004 -
Nicholas Wysocki, Assistant Professor; BA, MA, Western Illinois University; PhD, University of Iowa; 2009 -
Shenglan Zhang, Professor; BA, Hebei Normal University; MA, Beijing Normal University; MA, University of Southern California; PhD, Michigan State University, 2007 -
Note: When this catalog went to print, all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact your program advisor and refer to the Teacher Education Addendum (www.winona.edu/education/advising) for the latest information about program requirements whether you are (1) applying to a teacher education program, (2) currently enrolled in a teacher education program, or (3) expecting to graduate with a teacher education degree in 2010 or 2011. You may also join the WSU Pre-Education majors group on Facebook or follow the EFRT Department on Twitter (@WSU_PreEd) regularly for current program/licensure requirement and program updates.

## EDUCATIONAL FOUNDATIONS, RESEARCH, AND TECHNOLOGY OVERVIEW

The Department of Educational Foundations, Research, and Technology (EFRT) offers undergraduate courses in the psychological, social, and philosophical foundations of education. These courses make up the professional education sequence and provide experiences that help education majors from all education licensure programs understand (1) the role and purpose of public education in a democratic society, (2) contemporary theories of human learning and development and their implications for classroom instruction, and (3) the construction and interpretation of teacher-generated and standardized assessments. EFRT courses help students understand the contexts from which students come, in which they learn, and to which they return; these courses also help WSU students become critical consumers of educational research.

In addition, the EFRT Department offers undergraduate courses in the effective use of technology in classroom instruction. These courses explore the impact of technology on human learning and behavior, particularly its ability to expand students' access to information, reduce the cognitive requirements of classroom tasks, and enable students to demonstrate understanding using various media.

Note: The Professional Education Sequence requirements outlined in the "Teacher Education Programs" section (page 214) are subject to change as Minnesota Board of Teaching licensure rules change. Students should check with their program advisor, join the pre-Education major Facebook group, and/ or follow the EFRT Department on Twitter (@WSU_PreEd) regularly for current program/licensure 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 EFRT Department offers the following flag courses in the University Studies Program:
FLAG

Oral (m)
EDST
Childhood
EDST
EDST
(1-16)
EDST
(1-16)
EDST 469 Global Student Teaching (1-18)
Math/Critical Analysis (桪)

EFRT 310 Instructional Planning and Assessment: Elementary Education with Early Childhood Emphasis (3)
EFRT 311 Instructional Planning and Assessment: Middle Level and K-12 (3)
EFRT 312 Instructional Planning and Assessment: Secondary (3) Writing (ฉ)
EFRT 449 Middle Level Philosophy, Organization, and Interdisciplinary Planning (3)
EFRT 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.

## COURSE DESCRIPTIONS

## Educational Foundations, Research, and Technology - EFRT

## 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. Persons enrolling in EFRT 150 must arrange their schedule with the Student Teaching Director in the EFRT Department prior to pre-registration. Prerequisite: Instructor's permission. P/NC only. Offered each semester.

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 EFRT 310. Prerequisite: Admission to the teacher education program. 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 EFRT 311. Prerequisite: Admission to the teacher education program. 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 EFRT 312. Prerequisite: Admission to the teacher education program. 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. Prerequisite: Admission to the teacher education program. Offered each semester.

## 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 EFRT 303. Prerequisite: Admission to the teacher education program. 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 EFRT 304. Prerequisite: Admission to the teacher education program. Grade only. Offered each semester.
312 - Instructional Planning and Assessment: Secondary (3 S.H.) This course focuses on principles of curriculum formation including writing objectives, unit planning, and daily lesson planning for secondary education.

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 EFRT 305. Grade only. 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. Test-out option available. 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: EFRT 304 and 311 or EFRT 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: EFRT 303, 304, or EFRT 305, 310, 311, or 312. Take this course the semester prior to student teaching. Offered each semester.

## 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.

## Student Teaching - EDST

## 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 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 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 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. Prerequisites: All professional courses required for the major. P/NC only. Offered each semester. 469 - Global Student Teaching (1-18 S.H.)
This is a capstone student teaching experience. Student teachers are assigned a domestic/international school placement based on licensure level. This capstone experience is for one full semester on a daily full-time basis. Prerequisites: Completion of all coursework required for major. P/NC only.

## ENGLISH

Minné Hall, Room 302 (507-457-5440)
www.winona.edu/english/
Ruth Forsythe (Chairperson)
FACULTY
James Armstrong, Professor; BA, Northwestern University; MFA, Western Michigan University; PhD, Boston University; 1999 -
Rob Brault, Associate Professor; BA, Macalester College; PhD, University of Minnesota; 2000-
Chris Buttram, Associate Professor; BA, Emory University; MA, MPhil, PhD, Columbia University; 2000 -
Jane Carducci, Professor; BA, Colorado College, Colorado Springs; MA, PhD, University of Nevada-Reno; 1992 -
Debra Cumberland, Associate Professor; BA, Carleton College; MA, PhD, University of Nebraska-Lincoln; 2002 -
Gary Eddy, Professor; BA, State University of New York-Brockport; MA, University of Texas-El Paso; MFA, University of Arizona; PhD, State
University of New York-Binghamton; 1988 -
Ruth Forsythe, Professor; BA, St. Olaf College; MA, PhD, University of Minnesota; 1977 -
April Herndon, Assistant Professor; BA, MA, Radford University; PhD, Michigan State University; 2006 -
Andrew Higl, Assistant Professor; BA, John Carroll University; MA, PhD, Loyola University; 2009 -
J. Paul Johnson, Professor; BS, Valley City State University; MA, University of North Dakota; PhD, University of Minnesota; 1987 -

Liberty Kohn, Assistant Professor; BA, University of Wisconsin-Stevens Point; MA, PhD, University of Louisiana-Lafayette; 2009 -
Ethan Krase, Associate Professor; BA, MA, Illinois State University; PhD, University of Tennessee; 2004 -
Ditlev Larsen, Associate Professor; BA, University of Aalborg; MA, St. Cloud University; PhD, University of Minnesota; 2003 -
Gretchen Micblitsch, Assistant Professor; BA, Gustavus Adolphus; MA, PhD, University of Wisconsin-Madison; 2005 -
Elizabeth Oness, Associate Professor; BA, James Madison University; MFA, University of Maryland; PhD, University of Missouri-Columbia; 2001 -
Wayne Ripley, Assistant Professor; BA, Michigan State University; MA., University of Tennessee; PhD, University of Rochester; 2006 -
Holly Sbi, Professor; BA, Shanghai International Studies University; MA, PhD, Indiana University of Pennsylvania; 1995 -
Myles Weber, Assistant Professor; BA, Augsburg College; MA, George Washington University; MA, Syracuse University; PhD, University of MarylandCollege Park; 2007 -

## 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.

## TEACHING MAJORS

- CALT (Communication Arts and Literature) Majors: Except in unusual circumstances, the English Department recommends for student teaching only those students who have a minimum 2.75 GPA and who have earned at least a "B" in each of the following courses: ENG 290 and ENG 402.
- ESLT (TESOL) Majors: Except in unusual circumstances, the English Department recommends for student teaching only those students who have a minimum 2.75 GPA and who have earned at least a "B" in each of the following courses: ENG 328 and ENG 481. Additionally, this major requires a minimum of two years of second/foreign language instruction in a high school setting or one year in a college setting or equivalent.


## PREREQUISITES

- ENG 111 is a prerequisite for the ESLT, ENGA, ENGE, and EAPW major and minor programs.
- ENG 111 and ENG 290 are prerequisites for all other major and minor programs in English.

Prerequisites for individual courses are designated in the course descriptions.

## PASS/NO CREDIT (P/NC) COURSES

Except for some internships, no courses in the department 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) unless the course is designated as a grade-only 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 English Department offers the following flag courses in the University Studies Program:

## FLAG

| Oral (m) |  |
| :---: | :--- |
| ENG | 402 |
| ENG | Teaching Secondary English (3) |
| ENG | Seminar in American Literature (3) |
| ENG | Seminar in British Literature (3) |
| ENG | 481 |
| Math/Critical Analysis (Thery |  |
| ENG | 290 |
| ENG | Literary Studies (3) |
| ENG | 483 |$\quad$ Pedagogical Grammar (3)


| Writing (ß) |  |  |
| :---: | :--- | :--- |
| ENG | 417 | Shakespeare's Works (3) |
| ENG | 439 | Technical Writing (3) |
| ENG | 390 | Modern Literary Criticism (3) |
| ENG | 480 | Theories of Second Language Acquisition (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.

## BA MAJOR－ENGLISH：LITERATURE AND LANGUAGE（ENGL） <br> 49 S．H．（No Minor Required）

```
REQUIRED COURSES (36 S.H.)
甠 290 Literary Studies (5)
    Choose one of the following two courses:
        223 Classical Mythology (3) OR
        224 Bible as Literature (3)
    3 0 1 ~ B r i t i s h ~ L i t e r a t u r e ~ t o ~ 1 6 6 0 ~ ( 3 ) ~
    3 0 2 ~ E n l i g h t e n m e n t , ~ R e v o l u t i o n , ~ a n d ~ E n s l a v e m e n t ~ ( 3 ) ~
    3 0 3 ~ B r i t i s h ~ a n d ~ A m e r i c a n ~ R o m a n t i c i s m ~ ( 3 ) ~
    3 0 4 \text { Victorian and post-Civil War Literature (3)}
    3 0 5 ~ M o d e r n i s m ~ a n d ~ B e y o n d ~ ( 3 )
    405 Chaucer (3)
    Choose one of the following two courses:
        328 English Syntax (3) OR
        350 Introduction to Language Study (3)
R-390 Modern Literary Criticism (3)
巴417 Shakespeare's Works (3)
    490 Portfolio (1)
```


## ELECTVES（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．

## BA MAJOR－ENGLISH：WRITING OPTION（ENGW）

49 S．H．（No Minor Required）

## REQUIRED COURSES（36 S．H．）

211 Writing in Communities（3）
时 290 Literary Studies（5）
305 Modernism and Beyond（3）
309 Nonfiction Prose Writing（3）
310 Story Writing（3）
312 Poetry Writing（3）
328 English Syntax（3）
R 390 Modern Literary Criticism（3）
® 439 Technical Writing（3）
Choose one of the following three courses： 404 Advanced Creative Writing：Nonfiction（3）OR
410 Advanced Creative Writing：Prose（3）OR
412 Advanced Creative Writing：Poetry（3）
ß 417 Shakespeare＇s Works（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．

## BA MAJOR－ENGLISH：APPLIED LINGUISTICS（ENGA） <br> 40 S．H．（Minor Required）

```
REQUIRED COURSES (21 S.H.)
    250 Grammar and Usage (2)
    328 English Syntax (3)
    350 Introduction to Language Study (3)
๒480 Theories of Second Language Acquisition (3)
m481 TESOL Theories and Methods (3)
pe }483\mathrm{ Pedagogical Grammar (3)
    4 8 4 \text { ESL Materials, Resources, and Assessment (3)}
    4 9 0 ~ P o r t f o l i o ~ ( 1 ) ~
```

ELECTVES (19 S. भ.)
Electives must be chosen from the following English courses:
210 Advanced Expository Writing (3)
211 Writing in Communities (3)
221 Topics in World Literature (3)
227 Topics in Language (1-3)
324 Projects in Writing and Language (1-3)
399 Internship (1-12)
® 439 Technical Writing (3)
461 Independent Studies (1-3)

472 Seminar in Language and Discourse（3）
482 Second Language Composition Studies（3）
Other departmental or extradepartmental electives may be allowed with approval of the department chairperson．

## BA MAJOR－ENGLISH：FIRST COMBINING MAJOR－ LITERATURE AND LANGUAGE（ENGF） <br> 37 S．H．

This major can be taken only in combination with another full major． 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．）

㫬 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 1600 （3）
302 Enlightenment，Revolution，and Enslavement（3）
303 British and American Romanticism（3）
304 Victorian and post－Civil War Literature（3）
305 Modernism and Beyond（3）
Choose one of the following two courses：
328 English Syntax（3）OR
350 Introduction to Language Study（3）
B 390 Modern Literary Criticism（3）
ß 417 Shakespeare＇s Works（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．

## BA MAJOR－ENGLISH：SECOND COMBINING MAJOR－ WRITING OPTION（ENGS）

37 S．H．
This major can be taken only in combination with another full major． 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．）

211 Writing in Communities（3）
时 290 Literary Studies（5）
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 Beyond（3）
328 English Syntax（3）
Choose one of the following four courses：
404 Advanced Creative Writing：Nonfiction（3）OR
410 Advanced Creative Writing：Prose（3）OR
412 Advanced Creative Writing：Poetry（3）OR
B 439 Technical Writing（3）
B－ 417 Shakespeare＇s Works（3）
B 390 Modern Literary Criticism（3）
490 Portfolio（1）

## ELECTIVES（10 S．II．）

Electives must be English courses at the 200－level or above，including at least 6 S．H．in courses numbered 400 or above．

## BS MAJOR－COMMUNICATION ARTS AND LITERATURE （TEACHING）（CALT） <br> 61 S．H．

Note：When this catalog went to print，all Winona State University
teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact your program advisor and refer to the Teacher Education Addendum
(www.winona.edu/education/advising) for the latest information about program requirements whether you are (1) applying to a teacher education program, (2) currently enrolled in a teacher education program, or (3) expecting to graduate with a teacher education degree in 2010 or 2011.

## REQUIRED COURSES (61 S.H.)

## English - ENG (40 S.H.)

旳 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, Revolution, and Enslavement (3)
303 British and American Romanticism (3)
304 Victorian and post-Civil War Literature (3)
305 Modernism and Beyond (3)
301 British Literature to 1660 (3)
328 English Syntax (3)
350 Introduction to Language Study (3)
B- 390 Modern Literary Criticism (3)
402 Teaching Middle School and Secondary English (4)
® 417 Shakespeare's Works (3)
432 Comparative Literature (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 Theory (3)

371 Small Group Communication (3)

493 Teaching and Coaching Oral Communication (3)
Mass Communication - MCOM (3 S.H.)

* 100 Mass Media and Society (3)

Theatre 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 through volunteer experience or through activities courses (for credit) in communication studies, English, mass communication, and theatre/dance.

## OTHER REOUIRED COURSES

HERS 204 Personal and Community Health (3)

* SPED 400 Education of Exceptional Children/Youth (3)


## PROFESSIONAL EDUCATION SEQUENCE FOR 5-12 LICENSURE (32-36 S.H.)

Note: Teacher education majors must take all courses in the Professional Education Sequence in addition to courses in the content area. Refer to the "Teacher Education Programs" section of this catalog (page 216) for more information.

[^2]Py EFRT 312 Instructional Planning and Assessment: Secondary (3)
EDUC 429 Secondary Reading and Teaching Strategies (4)
B EFRT 449 Middle Level Philosophy, Organization, and Planning (3)
F- EFRT 459 The Professional Educator (3)
EDST 465 Student Teaching (12-16)
Note: EFRT 305 and EFRT 312 must be taken the first semester after admission to the Teacher Education program, and both courses must be taken in the same semester.

## BS MAJOR - TEACHING ENGLISH AS A SECOND LANGUAGE K-12 (TEACHING) (ESLT)

## 31 S.H. (Minor Required)

Note: When this catalog went to print, all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact your program advisor and refer to the Teacher Education Addendum (www.winona.edu/education/advising) for the latest information about program requirements whether you are (1) applying to a teacher education program, (2) currently enrolled in a teacher education program, or (3) expecting to graduate with a teacher education degree in 2010 or 2011.

## REQUIRED COURSES (24 S.H.)

## English - ENG

250 Grammar and Usage (2)
328 English Syntax (3)
350 Introduction to Language Study (3)
Q 480 Theories of Second Language Acquisition (3)
4381 TESOL Theories and Methods (3)
Pu 483 Pedagogical Grammar (3)
484 ESL Materials, Resources, and Assessment
490 Portfolio (1)
Education-EDUC
330 Literacy for Second Language Learners
ELECTIVES - ENG (7 S.H.)
210 Advanced Expository Writing (3)
211 Writing in Communities (3)
227 Topics in Language (1-3)
324 Projects in Writing and Language (1-3)
399 Internship (1-12)
ß-439 Technical Writing (3)
461 Independent Studies (1-3)
472 Seminar in Language and Discourse (3)
482 Second Language Composition Studies (3)
Extradepartmental electives may be allowed with the approval of the department chairperson.

## OTHER REQUIRED COURSES FOR LICENSURE

HERS 204 Personal and Community Health (3)

* SPED 400 Education of Exceptional Children/Youth (3)


## PROFESSIONAL EDUCATION SEQUENCE FOR K-12 (32-36 S. H.)

Note: Teacher education majors must take all courses in the Professional Education Sequence in addition to courses in the content area. Refer to the "Teacher Education Programs" section of this catalog (page 216) for more information.

| * | EFRT | 304/305 |
| :--- | :--- | :--- | Human Development and Learning (4)

Note: EFRT 304 or 305 and EFRT 311 or 312 must be taken the first semester after admission to the Teacher Education program, and both courses must be taken in the same semester.

FOREIGN LANGUAGE
This major requires a minimum of two years of second／foreign language instruction in a high school setting or one year in a college setting or equivalent．

## BA MINOR－ENGLISH：LITERATURE AND LANGUAGE（ENGL）

24 S．H．

```
REQUIRED COURSES (17 S.H.)
to }290\mathrm{ Literary Studies (5)
    Choose three of the following five courses:
        301 British Literature to 1660 (3)
        3 0 2 ~ E n l i g h t e n m e n t , ~ R e v o l u t i o n , ~ a n d ~ E n s l a v e m e n t ~ ( 3 ) ~
        303 British and American Romanticism (3)
        3 0 4 ~ V i c t o r i a n ~ a n d ~ p o s t - C i v i l ~ W a r ~ L i t e r a t u r e ~ ( 3 ) ~
        3 0 5 ~ M o d e r n i s m ~ a n d ~ B e y o n d ~ ( 3 ) ~
        B2417 Shakespeare's Works (3)
```

ELECTIVES (7 S.H.)
Electives must be chosen from any English course numbered 200 or above.
BA MINOR - ENGLISH: CREATIVE WRITING (ENGC)
27 S.H.
REQUIRED COURSES - ENG (2O S.H.)
隆 290 Literary Studies (5)
305 Modernism and Beyond (3)
309 Nonfiction Prose Writing (3)
310 Story Writing (3)
312 Poetry 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)
EIECTVES (7 S.H.)
Electives must be chosen from any English course numbered 200 or above.

## BA MINOR－APPLIED AND PROFESSIONAL WRITING（EAPW）

 24 S．H．This minor is designed for students completing a full major in a traditional content area in the sciences，humanities，arts，health，or education． The EAPW minor provides students with the theoretical knowledge and practical skills to write convincingly and successfully in a variety of workplaces and civic situations．

```
REQUIRED COURSES - ENG (17 S.H.)
    211 Writing in Communities (3)
    250 Grammar and Usage (2)
    3 0 9 \text { Nonfiction Prose Writing (3)}
    328 English Syntax (3)
    399 Internship (1-12 S.H); must be completed for at least 3 S.H.
R-439 Technical Writing (3)
```


## EEECTVES（ 7 S．H．）

Electives may be chosen from any English course numbered 200 or above．Extradepartmental electives may be allowed at the discretion of the department chair．

## BA MINOR－ENGLISH：TESOL（ENGE）

24 S．H．

```
REQUIRED COURSES - ENG (17 S.H.)
    2 5 0 ~ G r a m m a r ~ a n d ~ U s a g e ~ ( 2 ) ~
    328 English Syntax (3)
    350 Introduction to Language Study (3)
@480 Theories of Second Language Acquisition (3)
    Choose two of the following four courses:
    my 481 TESOL Theories and Methods (3)
        4 8 2 \text { Second Language Composition Studies (3)}
    晾 }483\mathrm{ Pedagogical Grammar (3)
```

484 ESL Materials，Resources，and Assessment（3）
ELECTVES－ENG（7 S．H．）
Choose electives from the following English courses：
210 Advanced Expository Writing（3）
211 Writing in Communities（3）
227 Topics in Language（1－3）
324 Projects in Writing and Language（1－3）
399 Internship（1－12）
461 Independent Studies（1－3）
472 Seminar in Language and Discourse（3）
Any two of the following not chosen above：
m 481 TESOL Theories and Methods（3） 482 Second Language Composition Studies（3）
时 483 Pedagogical Grammar（3）
484 ESL Materials，Resources，and Assessment（3）
Extradepartmental electives may be allowed with the approval of the department chairperson．

## COURSE DESCRIPTIONS <br> ENGLISH－ENG

099 －Introduction to College Writing（3 S．H．）
Students undertake intensive writing practice with special focus on the fundamentals of sentence and paragraph structure．The course aims to prepare students for ENG 111，College Reading and Writing．Students who do not pass this course will not be permitted to take ENG 111．（Credit does not count toward graduation．）Grade only．

105 －ESL：Listening to Academic Speech（3 S．H．）
Intensive practice in understanding academic lectures．Attention is also paid to pronunciation and other oral language skills．Designed to help ESL learners function successfully in American university classrooms．Grade only．

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．

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 culturally particular academic texts．Specific practice and preparation for ENG 111.
Prerequisite：ENG 106 or placement through testing．Grade only．

## 111 －College Reading and Writing（4 S．H．）

This course aims to strengthen students＇reading and writing abilities in preparation for college－level writing．A means of learning and inquiry，the writing in this course is based on interpreting，analyzing，and critiquing texts as well as on conducting research，synthesizing sources，and using citation／ documentation formats．Prerequisite：Qualifying ACT English sub－score， minimum score on the English placement exam，or successful completion of ENG 099．Grade only．

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 Chairperson＇s permission required．Grade only．

120 －Introduction to Literature（3 S．H．）
Intensive reading in selected major forms and themes of literature．Variable content：Semester schedules announce each section＇s content．Grade only．

210 －Advanced Expository Writing（3 S．H．）
An advanced course in writing expository essays for academic audiences， this course emphasizes the development of a mature prose style and a sophisticated approach to textual interpretation．Students refine their rhetorical and grammatical／mechanical competence and strengthen their skills in academic research，source integration，critical analysis，and evaluative judgment．Prerequisite：ENG 111．Grade only．

## 211 －Writing in Communities（3 S．H．）

This course concerns the study and practice of writing as a means of participation in a diverse，democratic，and literate society．Students may work with community partners to define and complete writing projects． Prerequisite：ENG 111．Grade only．

## 220 －Multicultural American Literatures（3 S．H．）

Recognizing the rich array of cultures that have contributed to American history，life，and art，this course focuses on one such culture or on a cross－ cultural topic and offers students a study of vital literary voices and their

[^3]social contexts. Variable content: Semester schedules announce each section's subject. Grade only.

## 221 - Topics in World Literature (3 S.H.)

Furnishing students with an opportunity to read artful writing of cultures other than those of the United States and England, this course focuses on a selected theme, genre, period, language, nationality, or region. Variable content: Semester schedules announce each section's subject. Grade only.

## 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.

## 223-Classical Mythology (3 S.H.)

This course covers the principal characters, narratives, and genres of Greek and Roman "mythologies." Studying this ancient literature and its contexts, students acquire knowledge of the Classical tradition and its influences in literary history. Prerequisite: ENG 111. Grade only.

## 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.

## 225 - Topics in Literature (1-3 S.H.)

Intensive study of a selected topic in English and foreign literature in translation. Variable content: Semester schedules announce each section's subject and credit.

## 226 - Topics in Writing (1-3 S.H.)

This course enables inquiry into and practice with specialized kinds of writing such as journal writing, web writing, and review writing. Variable content: Semester schedules announce each section's subject and credit.

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: Semester schedules announce each semester's subject and credit.

## 240 - Young Adult Literature (3 S.H.)

A study of young adult literature. Students will create and share teaching materials, such as lesson plans, study guides, writing assignments, and exams. ENG 240 addresses state licensure requirements for some levels of teaching communication arts and literature. Prerequisite: Instructor's permission.

## 250 - English Grammar and Usage (2 S.H.)

This course introduces students to the basic concepts and elements of English grammar and usage. The primary purpose is to develop students' abilities to understand grammar from a formal perspective. This course prepares students for ENG 328.

## 290 - Literary Studies (5 S.H.)

An introductory course in literary analysis, focusing on the major genres and introducing literary history, methods of interpretation, and research and documentation. Prerequisite: ENG 111. Grade only.

## 301 - British Literature to 1660 (3 S.H.)

A literary-history survey course of early English literature from the Old English period to the early 17th century. Prerequisite: ENG 290.

302 - Enlightenment, Revolution, and Enslavement (3 S.H.)
A literary-history survey of the "long eighteenth century" in a transatlantic context. This course covers the diverse body of English-language literature from the English Civil War through the French Revolution. Prerequisite: ENG 290.

## 303 - British and American Romanticism (3 S.H.)

A literary-history survey spanning the 18th century and early-to-middle 19th century in American and British literature. This course covers Romanticism, Transcendentalism, and the "American Renaissance." Prerequisite: ENG 290.

304 - Victorian and post-Civil War Literature (3 S.H.)
A literary-history survey of mid- to late-19th century literature in England and America, this course covers selected major writers, works, and genres. The course also surveys aesthetic concepts and historical contexts associated with British literature of the Victorian period and with American literature from the mid-1800s to the turn of the century. Prerequisites: ENG 290.

## 305 - Modernism and Beyond (3 S.H.)

A literary-history survey of Modernism in England, Ireland, and America. This course concentrates on selected writers and works of the early to middle 1900s and covers aesthetic concepts and historical contexts that frame studies of Modernist literature. The course may also address questions of Postmodernism and dynamics of late 20th century literature. Prerequisite: ENG 290.

308 - Playwriting/Scriptwriting (3 S.H.)
Study and practice in the techniques and forms of playwriting for the stage and scriptwriting for the camera; reading and writing a variety of short plays and screenplays. Prerequisite: ENG 290 or instructor's permission.

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. Prerequisite: ENG 290.

310 - Story Writing (3 S.H.)
Study and practice in the techniques and forms of fiction writing.
Prerequisite: ENG 290.
312 - Poetry Writing (3 S.H.)
Study and practice in the techniques and forms of poetry writing with emphasis on contemporary approaches. Prerequisite: ENG 290.

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. Variable content: Semester schedules announce each section's subject and credit. Prerequisite: ENG 111.

325 - Works of Literature (1-3 S.H.)
Concentrating on a single major work of literature or on a small set of connected literary works, this course provides not only an intensive exploration of the work(s) in question, but also, as relevant, study of the author, composition, historical milieu, and critical reception of the piece, as well as apt theoretical approaches thereto. Variable content: Semester schedules announce section's subject and credit. Prerequisite: ENG 290.

326 - Writers of Literature (1-3 S.H.)
Concentrating on a major or a compelling minor literary figure, this course addresses the biography and selected writings by the writer whose historical period, generic orientations, and cultural contexts are covered. Topics bearing on authorial intention, compositional process, and theoretical approaches may also be treated. Variable content: Semester schedules announce each section's subject and credit. Prerequisite: ENG 290.

## 327 - Genres of Literature (1-3 S.H.)

Narrowing literary studies to the treatment of a specific mode, style, genre, or sub-genre, this course is intended to educate students in both the historical manifestations of that literary category and the historical, abstract definitions thereof. Accordingly, the course concerns issues of genre study and its complexities. Variable content: Semester schedules announce each section's subject and credit. Prerequisite: ENG 290.
328 - English Syntax (3 S.H.)
This course introduces students to the structure of English as described by modern linguists. The course aims to develop students' ability to analyze and describe English and to apply syntactic knowledge of English to stylistic analyses of texts. Prerequisite: ENG 111.

350 - Introduction to Language Study (3 S.H.)
This course provides an introduction to the study of language from a linguistic standpoint. Topics include phonetics, phonology, morphology, semantics, pragmatics, sociolinguistics, psycholinguistics, language acquisition, and language and culture. This introduction to linguistics prepares students for further studies in the field. Prerequisite: ENG 111.

390 - Modern Literary Criticism (3 S.H.)
Following students' introduction to literary-critical methodologies in ENG 290 and coinciding with students' exercise of those approaches in various upper-division classes, this course covers-through readings in and about 20th century literary theory and criticism-major figures, ideas, and movements from New Criticism to the present. In this reading- and writing-intensive course, students produce papers that, from defined critical perspectives, interpret literary works by applying theoretical paradigms. Prerequisite: ENG 290.

## 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 at the instructor's discretion.

402 - Teaching Middle School and Secondary English (4 S.H.)
A study of the goals and methods of the middle school and secondary English teacher and the content and structure of the middle school and secondary English curriculum. ENG 402 addresses state licensure requirements for some levels of teaching communication arts and literature. This course should be taken in the last semester that it is offered prior to student teaching. Prerequisites: ENG 290 with a "B" or higher and instructor's permission.

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. Prerequisite: ENG 309.

## 405 - Chaucer (3 S.H.)

A study of Chaucer's major works (including The Canterbury Tales) read in Middle English. Prerequisite: ENG 290.

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. Prerequisite: ENG 310.
412 - Advanced Creative Writing: Poetry (3 S.H.)
Advanced study of selected poets and poetics; advanced practice in poetry writing. Prerequisite: ENG 312.
417 - Shakespeare's Works (3 S.H.)
The course will be based upon careful consideration and discussion of Shakespeare's works, both the printed texts and filmed versions. Prerequisite: ENG 290.
423 - Shakespeare in Performance (3 S.H.)
This intensive two-week course is based on careful reading and discussion of Shakespeare's plays and their performances; the choice of plays for the course will correspond to the offerings of the Great River Shakespeare Festival. This course entails extra fees. Prerequisite: ENG 290.

432 - Comparative Literature (3 S.H.)
Examination of texts within their cultural contexts and exploration of strategies for comparing texts from various cultural traditions. Prerequisite: ENG 290.

439-Technical Writing (3 S.H.)
The theory and practice of creating technical documents with text and graphics such as proposals, reviews, reports, newsletters, descriptions, instructions, manuals, websites, and/or correspondence. Using available technology (hardware and software), students will develop these documents with attention to their personal, organizational, cultural, legal, and ethical consequences. Prerequisite: ENG 111.

## 461- Independent Studies (1-3 S.H.)

Independent studies determined by the needs of the individual student.
Offered by previous arrangement only. A student may earn no more than 6
S.H. through independent studies. Prerequisite: ENG 290.

## 470 - Seminar in American Literature (3 S.H.)

This reading- and writing-intensive course offers advanced study of a period, genre, figure, or theme in American literature and includes seminar-style presentations by students. Variable content: Semester schedules announce each section's subject. Prerequisites: ENG 290 and instructor's permission.

471 - Seminar in British Literature (3 S.H.)
This reading- and writing-intensive course offers advanced study of a period, genre, figure, or theme in British literature and includes seminar-style presentations by students. Variable content: Semester schedules announce each section's subject. Prerequisites: ENG 290 and instructor's permission.

472 - Seminar in Language Study and Discourse (3 S.H.)
Advanced study of topics in language and linguistics. Topics may include history of the English language, sociolinguistics, psycholinguistics, language and social context, contrastive rhetoric, pragmatics, and language and culture. Variable content: Semester schedules announce each section's subject.
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 ENG 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 ENG 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 the examination of theories and principles guiding successful ESL material development and language test creation. Students typically practice developing their own course materials, evaluate 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, the course addresses elements of narrative, composition, design, cinematography, acting, directing, editing, theory, and criticism. Grade only.

## ENVIRONMENTAL SCIENCE

## ENVIRONMENTAL SCIENCE STEERING COMMITTEE

Biology: Micbael Delong, Neal Mundabl Pasteur Hall, Room 215 (507-457-5165)
Chemistry: Mark Engen, Jeanne Franz
Pasteur Hall, Room 312 (507-457-5290)
Geoscience: Candace Kairies Beatty, Toby Dogwiler
Pasteur Hall, Room 120 (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 introductory courses; an in-depth set of option courses in biology, chemistry, or geoscience; 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:

- BS Biology - Environmental Science Option
- BS Major ACS Environmental Chemistry
- BS 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 coursework provides students with the strong, interdisciplinary science background necessary to understand, critically evaluate, and mitigate environmental problems. Each of the majors in this program-biology, chemistry, and geoscience-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 coursework 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，including nearby field stations and localities，often in cooperation with governmental agencies，private landowners， or environmental advocacy groups．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．

## BS MAJOR BIOLOGY－ENVIRONMENTAL SCIENCE OPTION （BIES） <br> 94－95 S．H．（No Minor required）

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BIOLOGY CORE COURSES - BIOL (18 S.H.)
    241 Basics of Life (4)
    242 Organismal Diversity (4)
— 308 Cell Biology (3)
他 310 Genetics (3)
    312 General Ecology (3)
    313 General Ecology Lab (1)
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REQUIREMENTS - BIOL (12 S.H.)
318 Invertebrate Zoology (4) OR
319 Vertebrate Biology (4)
335 Plant Ecology (4) OR BIOL 350 Plant Taxonomy (4)
am 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)
ค 415 Ecology of Large Rivers (4)
420 Limnology (4)
m 423 Ecosystem Ecology (3)
424 Biogeography (3)
425 Animal Behavior (3)
BIOLOGY CAPSTONE REQUIREMENT (3 S.H.)
ఒ 499 Capstone Project (1-3)
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．）
MATH150 Modeling Using Precalculus and Statistics（3）
MATH155 Modeling Using Calculus（3）
MATH305 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）
M CHEM 436 Topics in Environmental Chemistry（3）
GEOS 325 Environmental Geoscience（3）

GEOS 415 Advanced Geomorphology（4）
解 GEOS 420 Applied Hydrogeology（4）
GEOS 425 Global Climate Change（3）
BS MAJOR ACS ENVIRONMENTAL CHEMISTRY（CHEC）
78 S．H．（No Minor Required）
REQUIRED COURSES（67 S．H．）
Chemistry－CHEM（47 S．H．）
212， 213 Principles of Chemistry I，II（8）
320 Environmental Chemistry（4）
340 Organic Chemistry Survey（4）
瑯 360 Chemical Information（2）
400 Biochemistry I（4）（Note：Only 1 S．H．of CHEM 400 counts as a Writing Flag．）
胜 412， 414 Physical Chemistry I，II（6）
® 413， 415 Physical Chemistry Laboratory I，II（3）
425， 426 Analytical Chemistry I，II（8）（CHEM 426 is a Writing flag course．）
436 Topics in Environmental Chemistry（3）
450 Advanced Inorganic Chemistry（4）
m 475 Seminar in Chemistry（1）
Mathematics－MATH（8 S．H．）
160， 165 Calculus I，II（8）
Physics－PHYS（8 S．H．）
221， 222 University Physics I，II（8）
Biology－BIOL（4 S．H．）
312， 313 General Ecology and General Ecology Laboratory（4）

## ELECTIVES（11 S．H．）

Chemistry－CHEM（3 S．H．）
427 Topics in Instrumental Chemistry（2）
428 Chemical Separations（3）
470 Isotope，Nuclear，and Radiochemistry（2）
430 （ß）460，OR 461．Students may choose to pursue a research path under the direction of a research advisor．（1－3）
Biology－BIOL（4 S．H．）
415 Ecology of Large Rivers（4）
420 Limnology（4）
Geoscience－GEOS（4 S．H．）
240 Watershed Science（4）
325 Environmental Geoscience（3）
m 370 GIS and Imaging Technology（4）
TO 420 Applied Hydrogeology（4）
BS MAJOR－GEOSCIENCE：ENVIRONMENTAL SCIENCE
OPTION（GEES）
92－96 S．H．（No Minor Required）
Note：When this catalog went to print，the Geoscience curriculum was undergoing a significant revision．Please contact a Geoscience faculty member for the most up－to－date requirements for the Environmental Science option．
GEOSCIENCE CORE COURSES－GEOS（23 S．H．）
＊ 120 Dynamic Earth（4）
＊ 130 Earth and Life through Time（4）
220 Minerals and Rocks（4）
P－ 280 Field and Analytical Methods I（2）
330 Structural Geology（4）
B 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 an upper－division elective．

REQUIREMENTS - GEOS (20-21 S.H.)
$240 \quad$ Watershed Science (4)
325 Environmental Geoscience (3)
m 370 GIS and Imaging Techniques (3)
400 Directed Research in Geoscience (2-3)
件 415 Advanced Geomorphology (4)
㑬 420 Applied Hydrogeology (4)
OTHER REQUIRED COURSES (43-44 S.H.)

## Biology - BIOL (12 S.H.)

* $241 \quad$ Basics of Life (4)
* 242 Organismal Diversity (4)

312, 313 General Ecology, Ecology Lab (4)
Chemistry - CHEM (12 S.H.)
*212, *213, Principles of Chemistry I, II (8)
320 Environmental Chemistry (4)
Mathematics - MATH (6 S.H.)
150 Modeling Using Precalculus and Statistics (3)
155 Modeling Using Calculus (3) OR may substitute 120 and
MATH 160 or MATH 160 and MATH 165
Physics - PHYS (4 S.H.)
One of the following three courses:

* 115 Conceptual Physics (4)
* 201 General Physics I (4)
* 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.):
NH/3 BIOL 315 Environmental Biology (3) BIOL 335 Plant Ecology (4)
BIOL 360 Entomology (4)

| $\dagger$ BIOL | 415 | Ecology of Large Rivers (4) (See Note below.) |  |
| :--- | :--- | :--- | :--- |
| $\dagger$ | BIOL | 420 | Limnology (4) (See Note below.) |
| $*$ | CHEM | 425 | Analytical Chemistry I (4) |
| ${ }^{\text {m }}$ | CHEM | 436 | Topics in Environmental Chemistry (3) |

$\dagger$ 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
M 320 Optical Mineralogy and Petrology (4)
385 Geology of North America (3)
405 Current Topics in Geoscience (1-3)
$425 \quad$ Global Climate Change (3)
450 Travel Study in Costa Rica (3)
$470 \quad$ Geologic Research Strategies (2)
Biology - BIOL
P- 415 Ecology of Large Rivers (4) OR
420 Limnology (4)
Chemistry - CHEM
$340 \quad$ Organic Chemistry Survey (4)
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. At least two courses must be used to fulfill the elective requirement.

## FAA AIRWAY SCIENCE CERTIFICATION PROGRAM

146-162 S.H. (FAA Airway Science Certification)
Pasteur Hall, Room 120 (507-452-2220)
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:

- BS in Computer Science with a Physics/Airway Science/Aviation minor
- BS 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.

## COMPUTER SCIENCE OPTION

Degree program: 120 S.H.; Certification: 145 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 (3)
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 Introduction to Psychological Science (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 (51 S. H.)
Computer Science - CS (41 S.H.)
234 Algorithms and Problem Solving (4)
250 Algorithms and Data Structures (4)
275 Mathematical Foundations of Algorithms (4)
310 Social Implications of Computing (3)
341 Data Structures (4)
375 Computer Systems (4)
385 Applied Database Management Systems (3)

| 405 | Operating Systems (3) |
| :---: | :---: |
| ®-410 | Software Engineering (3) |
| 415 | Principles of Program Language (3) |
| 435 | Theory of Computation (3) |
| 471 | Object Oriented Design and Development (3) |
| Mathematics - MATH (8 S.H.) |  |
| 160 | Calculus I (4) |
| 165 | Calculus II (4) |
| Physics - PHYS (2 S.H.) |  |
| 332 | Computer Organization (2) |
| ELECTIVES (18 S. H.) |  |
| ELECTIVES (18 S. H.) |  |
| 313 | Networking and Telecommunications (3) |
| 344 | Introduction to Web Programming (3) |
| 368 | Introduction to Bioinformatics (3) OR |
| 369 | Spatial Information Processing (3) |
| [m) 411 | Software Testing (3) |
| 413 | Advanced Networking and Telecommunications (3) |
| 420 | Computer Architecture (3) |
| 425 | Numerical Analysis (4) |
| 430 | Computer Graphics (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) |
| 467 | Topics: Information Systems Applications (1-3) |
| 468 | Algorithms in Bioinformatics (3) |
| 469 | Algorithms in Geographic Information Technology (3) |
| 472 | Reusable Software Architectures (3) |
| 476 | Distributed Systems: Concepts and Design (3) |
| 482 | Internet/Web Architecture and Development (3) |
| 485 | Database Systems Design (3) |
| 491 | Practicum in Computer Science (6) |
| 495 | Computer Science Research Seminar (3) |
| 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 of Aviation (2) |

## ADDITIONAL REQUIREMENTS FOR FAA AIRWAY SCIENCE CERTIFICATION 30 S.H.

## Business Administration (15 S.H.)

BUSA 291 Legal Environment in Business (3)
时 ECON 222 Statistics for Business and Economics (3)
MGMT 315 Principles of Management (3) OR
MGMT 317 Management of Human Resources (3)
巴 MGMT 325 Organizational Dynamics (3)
MGMT 334 Operations Management (3)

## Chemistry (4 S.H.)

CHEM 212 Principles of Chemistry I (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: 120 S.H. Certification: 157 S.H.

## UNIVERSITY STUDIES (USP) (50 S.I.)

## 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)
PSY 210 Introduction to Psychological Science (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 (57 S.H.)

Business Administration (33 S.H.)
BUSA 291 Legal Environment in Business (3)
BUSA 311 Business Law II (3)
Fo ECON 222 Statistics for Business and Economics (3)
B MGMT 317 Management of Human Resources (3)
MGMT 325 Organizational Dynamics (3)
MGMT 334 Operations Management (3)
MGMT 345 International Business (3)
MGMT 464 Project Management (3)
MGMT 495 Strategic Management (3)
MIS 202 Microcomputers in Business (3)
MIS 362 Management Information Systems (3)
Accounting (6 S.H.)
ACCT 211 Financial Accounting Principles (3)
ACCT 212 Managerial Accounting Principles (3)
Finance (3 S.H.)
FIN 360 Corporate Finance (3)
Marketing (3 S.H.)
MKTG 300 Principles of Marketing (3)

## BUSINESS ADMINISTRATION ELECTIVES (12 S.H.)

Select 300 + level courses:
Courses from Department of Business Administration (6 S.H.)
Courses from College of Business (6 S.H.)

## 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.

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Chemistry (4 S.H.)
    CHEM 212 Principles of Chemistry I (4)
Communication Studies (9 S.H.)
    CMST 366 Organizational Communication (3)
    CMST }387\mathrm{ Interpersonal Communication (3)
    CMST 485 Senior Seminar in Communication Theory (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)
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Somsen Hall, Room 319 (507-457-5165)
Mark Wrolstad (Chairperson)

## FACULTY

David W. Kesler, Professor; BS, Pacific Lutheran University; MA, MBA, University of Kansas; PhD, University of Wisconsin-Milwaukee; 1984 -Chan-Wung Kim, Professor; BA, SungKyunKwan University; MBA, Seoul National University; PhD, University of Iowa; 2002 -
Michael Murray, Professor; BA, University of South Florida; MA, PhD, University of Notre Dame; 1986 -
Mark Wrolstad, Professor; BA, Luther College; MBA, University of Florida; PhD, University of Colorado; 1989 -

## PURPOSE

The purpose of the Finance program 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.

## COLLEGE OF BUSINESS ADMISSIONS POLICY

Admission to the College of Business (COB) for College of Business BS majors and minors is required before students may enroll in 300- and 400-level classes. $\dagger$ Students must meet the following specific requirements:

1. 30 or more earned credits at the time of application.
2. Cumulative GPA of 2.5 .
3. Completion of the following courses with a minimum grade of "C":
```
ACCT 211 CMST 191 ECON 201
ECON 222 or STAT 210\ddagger ENG 111 MATH 110 or above\ddagger
```

$\dagger$ Non-College of Business majors and minors must have junior status and instructor's permission to take COB 300- and 400-level courses.
$\ddagger$ COB minors with Non-COB major: Completion of math and statistics courses required by their major or, if none are required, these students should take any college-level math and statistics courses.

## 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 23. Specific requirements for finance majors are as follows.

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 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 Finance Department offers the following flag courses in the University Studies Program:

## FLAG

Oral (m)
FIN 421 Institutional Investment \& Financial Markets (3) Math/Critical Analysis (F)

FIN 335 Forecasting Methods (3)

## BS MAJOR - FINANCE (FIA; FIB)

69-70 S.H. (No Minor Required)

## BUSINESS CORE (42-43 S.H.)

Mathematics - MATH (3-4 S.H.)
140 Applied Calculus (3) OR
160 Calculus I (4)
Accounting - ACCT (6 S.H.)
211 Financial Accounting Principles (3)
212 Managerial Accounting Principles (3)
Statistics (3 S.H.)
To ECON 222 Statistics for Business and Economics (3) OR
STAT 210 Statistics (3)

## Business Administration (18 S.H.)

㫬 ECON 322 Intermediate Statistics for Business and Economics (3) OR
STAT 310 Intermediate Statistics (3)
BUSA 291 Legal Environment of Business (3)
MIS 362 Management Information Systems (3)
be MGMT 325 Organizational Dynamics (3)
MGMT 334 Operations Management (3)
MGMT 495 Strategic Management (3)
Economics - ECON (6 S.H.)

* 201 Principles of Microeconomics (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.

* 202 Principles of Macroeconomics (3)

Finance - FIN (3 S.H.)
360 Corporate Finance (3)
Marketing - MKTG (3 S.H.)
300 Principles of Marketing (3)
FINANCE MAJOR REQUIREMENTS (27 S.H.)
FINANCE CORE - FIN (12 S.H.)
377 Investments (3)
390 Intermediate Corporate Finance (3)

* 421 Institutional Investments and Financial Markets (3)

440 International Finance (3)

## OPTION A - FIA (15 S.I.).

Option A is applicable for students planning to seek a career immediately after graduation. Choose five courses from the approved list. At least three of the courses must be in finance.

$$
\text { m = Oral Flag 阿 = Math/Critical Analysis Flag } \quad \text { B = Writing Flag }
$$

Tu FIN 335 Forecasting Methods (3)
FIN 404 Commercial Bank Management (3)
FIN 422 Portfolio Management (3)
FIN 423 Derivative Securities (30
FIN 463 Cases in Financial Management (3)
FIN $\quad 471$ Real Estate Finance (3)
FIN 473 Real Estate Investment (3)
MKTG 334 Marketing Research (3)

## OPTION B - FIB (15 S.H.)

Option B is applicable for students planning to do advanced study in finance.

| REQUIRED - FIN (9 S.H.) |  |
| :--- | :--- |
| Ro 335 | Forecasting Methods (3) |
| 422 | Portfolio Theory and Security Valuation (3) |
| 423 | Derivative Securities (3) |

OPTIONAL COURSES (6 S.H.)
Select two courses from the following list:
ECON 340 Quantitative Analysis for Business and Economics (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)

## BS MINOR - FINANCE

30 S.H.

## REQUIRED COURSES:

Accounting - ACCT (3 S.H.)
211 Financial Accounting (3)

## Statistics (3 S.H.)

PJECON 222 Statistics for Business and Economics (3) OR
STAT 210 Statistics (3)
Economics - ECON (6 S.H.)
201 Principles of Microeconomics(3)
202 Principles of Macroeconomics(3)
Mathematics (3 S.H.)
Math requirement for the student's major (3)

## Finance (15 S.H.)

Required Courses - FIN (9 S.H.)
360 Corporate Finance (3)
377 Investments (3)
390 Intermediate Corporate Finance (3)

## ELECTVE COURSES - FIN (6 S.H.)

404 Commercial Bank Management (3)
m 421 Institutional Investment and Financial Markets (3)
422 Portfolio Theory and Security Valuation (3)
423 Derivative Securities (3)
440 International Finance (3)
463 Cases in Financial Management (3)
471 Real Estate Finance (3)
473 Real Estate Investment (3)
480 Independent Studies in Finance (3)

## COURSE DESCRIPTIONS - 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, and Box-Jenkins ARIMA method and regression. Prerequisites: Admission to the College of

Business, MATH 140 or MATH 160, and ECON 222 or STAT 210, 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 PC environment. Alternative course topics include basic data handling, regression analysis, forecasting techniques, and survey tabulation and analysis, etc. Requires completion of several project assignments. May be repeated as topics change. Prerequisite: Admission to the College of Business, ECON 222, or STAT 210. 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 decisionmakers. 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: Admission to the College of Business, ECON 201, ECON 202, ACCT 211, ECON 222 or STAT 210 and one of the following MATH courses- $110,115,120,140$, or 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: Admission to the College of Business and FIN 360. Grade only.

## 390 - Intermediate Corporate Finance (3 S.H.)

A blend of theory and applications to assist financial decision makers. This course covers long-term investment decisions, capital structure issues, long-term financing, and short-term management in the context of a global orientation. Prerequisites: Admission to the College of Business and FIN 360. Grade only.

## 398 - Internship (1-6 S.H.)

Credits are not counted in the finance major, but as general elective credit. Prerequisites: Admission to the College of Business and concurrent enrollment in FIN 399. P/NC only.
399 - Internship Problem (3 S.H.)
Prerequisites: Admission to the College of Business, completion of business core courses, 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. Prerequisites: Admission to the College of Business and FIN 360. Grade only. Offered every other year.
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: Admission to the College of Business and FIN 360. 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: Admission to the College of Business, FIN 377, and MIS 362, or instructor's permission. 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: Admission to the College of Business, MATH 140 or MATH 160, 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. Prerequisites: Admission to the College of Business and 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: Admission to the College of Business, FIN 360, and MIS 362. 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. Prerequisites: Admission to the College of Business and 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. Prerequisites: Admission to the College of Business and 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. Prerequisites: Admission to the College of Business and instructor's permission. Total credits may not exceed six. Grade only.

## FOREIGN LANGUAGES

Somsen Hall, Room 319 (507-457-5165)<br>Juan Fernandez-Iglesias (Chairperson): Spanish<br>Frisk: French and Spanish<br>Gonzalez: Spanish<br>Mazur: German, French, and Spanish<br>Ramos: German and Spanish

## FACULTY

Juan Fernandez-Iglesias, Associate Professor; BA, Universidad de Santiago de Compostela; MA, PhD, University of Kansas; 2004 -
Timothy Frisk, Associate Professor; BS, Winona State University; BA, MA, PhD, University of Minnesota; 1990 -
Armando Gonzalez, Associate Professor; BA, MA, PhD, University of Iowa; 2004 -
Ronald M. Mazur, Professor; BA, University of Detroit; MA, PhD, University of Michigan; 1978 -
Lilian Ramos, Associate Professor; BA, Seattle University; MA, University of Washington; PhD, University of Washington; 1992 -

## 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:

- 101-202 level language courses in French
- 101-202 level language courses in German
- Complete BA/BS major/minor in Spanish
- Complete BS (teaching) major in Spanish

The Foreign Language Department is authorized to recommend graduates for licensure in 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. Most other courses are offered every two years. For this reason, majors and minors in Spanish 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.

## 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 Spanish (SPAN). Students should consult with the department chairperson for details.

Note: Courses beyond the intermediate level are only offered every other year except for SPAN 301 and SPAN 403. This means that students who have not completed intermediate courses during their sophomore year will have difficulty graduating in four years with a major in Spanish 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 23. 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 29). Students who wish to receive University credit for participation in a study abroad program must have prior approval from the Foreign Language Department. Foreign language students are strongly encouraged to study abroad in order to acquire language proficiency.

## 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 SPAN 201 (Intermediate Spanish I) for those majors/minors who received an "A" or "B" in SPAN 202 (Intermediate Spanish II). In this instance, students can qualify for retroactive credit for SPAN 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.

$$
m=\text { Oral Flag } \quad \text { 呵 = Math/Critical Analysis Flag } \quad \mathrm{B}=\text { Writing Flag }
$$

## GPA REQUIREMENTS

1．A cumulative GPA of 2.00 to graduate with a major or minor in Spanish．
2．A cumulative 2.75 GPA to be admitted to teacher education and for courses taken for the BS teaching major．
For a checklist of the University＇s graduation requirements，see page 23.

## 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：

## FLAG

SPANISH
Oral（
SPAN 302 The Culture of Spain（3）
Math／Critical Analysis（㥸）
SPAN 402 Spanish Peninsular Literature II（3）

| Writing（®） |  |  |
| :---: | :---: | :--- |
| SPAN | 301 | Spanish Composition and Conversation（4） <br> SPAN |
| 401 | Spanish Peninsular Literature I（3） |  |

Flag courses that can be used to satisfy Spanish major／minor requirements are identified in the lists of required courses and electives in this section．

B－SPAN 401 Spanish Peninsular Literature I（3）
TG SPAN 402 Spanish Peninsular Literature II（3）
SPAN 403 Latin American Literature（4）
FLAN 405 Methods of Teaching a Modern Foreign Language（4）

## PROFESSIONAL EDUCATION SEQUENCE（32－36 S．H．）

Note：Teaching majors must take all courses in the Professional
Education Sequence in addition to courses in the content area．Refer to the
＂Teacher Education Programs＂section of this catalog（page 214）for more information．
＊EFRT 305 Human Development and Learning（4）
EFRT 308 Human Relations and Student Diversity（3）
件 EFRT 312 Instructional Planning and Assessment：Secondary（3）
EDUC 429 Secondary Reading and Teaching Strategies（4）
－EFRT 449 Middle Level Philosophy，Organization and Planning（3）
D－EFRT 459 The Professional Educator（3）
m EDST 465 Student Teaching（12－16）

## BA MINOR－SPANISH（SPAN）

24 S．H．

## LANGUAGE SKIILLS（8 S．H．）

SPAN 201 Intermediate Spanish I（4）
SPAN 202 Intermediate Spanish II（4）

## SPECIALIZED STUDY－SPAN（16 S．H．）

204 Special Topics in Hispanic Literature and Culture（2）OR
300 Spanish Linguistics and Phonetics（2）
P－ 301 Spanish Composition and Conversation（4）
m 302 The Culture of Spain（3）OR
303 The Culture of Latin America（3）
B－401 Spanish Peninsular Literature I（3）OR
件 402 Spanish Peninsular Literature II（3）
403 Latin American Literature（4）

## COURSE DESCRIPTIONS <br> FOREIGN LANGUAGE－FLAN

## 218 －The New Europeans：Understanding the EU（3 S．H．）

Through the use of stimulating readings，this course serves as an introduction to the issues shaping contemporary Europe．The main topic of the course will be to explore the evolution of the concept of Europe throughout different historical periods，learn about the different institutions that govern Europeans，highlight the important events in the unification of Europe，discuss the symbols that make Europe real for the average citizen， analyze the competing visions of where Europe is headed and what it should be，and explore the concept of the European dream and way of life by comparing it with its American counterpart．Offered yearly．

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： SPAN 202 or equivalent．Offered every two years．

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.

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 of 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.

205 - Special Topics in French Culture (2 S.H.)
Study of contemporary issues in the French media, particularly cinema. Prerequisite: FREN 202 or equivalent.

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.

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.

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 (fourthsemester French) and French literature courses. Prerequisite: FREN 202 or equivalent. Letter grade only.

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.

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 Song of Roland, Romance of the Rose, Villon's poems, Rabelais' Gargantua, Montaigne's Essays, and The Pleiade are studied. Prerequisite: FREN 202 or equivalent.

## 403 - French Literature II (3 S.H )

Seventeenth and 18 th century French literature. The course is taught in French. Writers such as Corneille, Moliere, Racine, Marivaux, Voltaire, Diderot, Rousseau, and Beaumarchais are studied. Prerequisite: FREN 202 or equivalent.

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.

## 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.

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.

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.

302 - German Conversation and Composition (4 S.H.)
The practice of advanced language skills through guided conversation and composition. Prerequisite: GERM 202 or equivalent.

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.

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.

402-18th and 19th Century 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.

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.

## 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 and Culture (2 S.H.) Directed readings in Hispanic literature and culture. 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 yearly.
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, traditions, and 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, and Baroque literature. Prerequisite: SPAN 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, Neoclassism, Romanticism, and the transition of the "gaucho epic" from the 19th to the 20th century. It also includes Modernism; the Criollismo; PostModernism; Magic Realism; and the Boom with writers, such as Gabriel Garcia Marquez, Carlos 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; BA, MA, University of Nebraska; PhD, 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 23. 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.


## BA MINOR - GEOGRAPHY (GEOG)

24 S.H.

```
REQUIRED COURSES - GEOG (12 S.H.)
    211 Economic Geography (3)
    212 Physical Geography (3)
    213 Cultural Geography (3)
    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 1492within 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 120 (507) 457-5260
http://www.winona.edu/geology
Email: geoscience@winona.edu
Toby Dogwiler (Chairperson)

## FACULTY

Stephen T. Allard, Associate Professor; BS, MS, University of New Hampshire; PhD, University of Wyoming; 2002 -
Jennifer L. B. Anderson, Associate Professor; BS, University of Minnesota; ScM, PhD, Brown University; 2005 -
Toby Dogrwiler, Associate Professor; BA, Wittenberg University; MSc, Mississippi State University; PhD, University of Missouri, Columbia; 2002 Nancy O. Jannik, Acting Associate Vice President for Research, Graduate Affairs and Assessment; BS, College of William \& Mary; MS, Rutgers University;

PhD, New Mexico Institute of Mining \& Technology; 1986 -

## WHY STUDY GEOSCIENCE?

One of the hallmarks of Winona State University students is their incredible curiosity about the world around them. The Department of Geoscience 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 ${ }^{\mathrm{TM}}$ survey lists geoscience as one of the top areas of study for successful 21 st 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 Bachelor of Science degree, you might decide to continue your education in a graduate program, where your study for the Master of Science 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 liberal arts education for the 21st century. Our curriculum provides you a broad preparation in the natural sciences; it helps you develop and deepen your 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 AVALLABLE FOR STUDENT USE

The Department of Geoscience boasts an impressive array of analytical and field equipment for student use in coursework and faculty-supervised student research projects. 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 gauge a stream using a Sontek ${ }^{\mathrm{TM}}$ FlowTracker Acoustic Doppler Velocimeter and analyze water samples using a Hach ${ }^{\text {TM }}$ 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 ${ }^{\mathrm{TM}}$ 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 $^{\mathrm{TM}}$ seismic system or our AGI SuperSting Earth Resistivity Imager out into the field. Students use this equipment 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 and student research. Students learn to solve real world problems by combining survey data collected in the field using our suite of Trimble ${ }^{\mathrm{TM}}$ GeoExplorer XT GPS mapping units and Nikon ${ }^{\mathrm{TM}}$ 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 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 or testing the impact of various agricultural best-management processes on stream-bank erosion. Additionally, the STaRS Lab includes advanced equipment for processing and studying sediments and soils, including a

Spectrex ${ }^{\mathrm{TM}}$ Laser Particle Counter and a full range of drying ovens, sieve shakers, analytical balances, and combustion furnaces.
Students whose interests lie beyond the Earth itself can take part in night-sky fieldwork at the WSU Observatory, operated and maintained by the Department of Geoscience. Students can use a new, fully-automated, 12 -inch Meade RCX400 reflecting telescope with photographic capabilities and two portable 8-inch Meade reflectors as part of their coursework in Astronomy and Planetary Geology; this equipment is also available to students interested in astronomy research projects. Students who are interested in planetary science may have opportunities for research at NASA facilities, studying planetary impact cratering.

## CAREER OPPORTUNITIES

Employment opportunities in the geosciences described by the Geological Society of America for the new millennium are bright. The U.S. Bureau of Labor Statistics reports that demand for earth science professionals will increase over the next decade, particularly in the Midwest. The U.S. Bureau of Labor Statistics indicates above average growth potential in geoscience careers during the current decade (see http://www.bls.gov/oco/ocos $288 . \mathrm{htm}$; and http://www.bls.gov/oco/ocos $050 . \mathrm{htm}$ ). 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 PhD 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 complete an undergraduate research project and take a summer field course as part of their 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

Note: When this catalog went to press, the Department of Geoscience was in the process of revising its curriculum to streamline its degree programs and reduce the program requirements for all major options to $120 \mathrm{~S} . \mathrm{H}$. or less. Please consult a Geoscience faculty advisor or the departmental website (www. winona.edu/geology) for the most up-to-date information on Geoscience major and minor degree programs.

## Geoscience Major

- BS 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.
- BS 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.
- BA 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 BS 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 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 BS 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 23 .

## GEOSCIENCE HONORS PROGRAM

The Department of Geoscience offers students the option to engage in independent research culminating in an honors 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 (m) |  |  |
| GEOS | 320 | Optical Mineralogy and Petrology (4) |
| GEOS | 370 | GIS and Imaging Techniques (3) |
| Math/Critical Analysis (fu) |  |  |
| GEOS | 415 | Advanced Geomorphology (4) |
| GEOS | 420 | Applied Hydrogeology (4) |

Writing ( $\mathrm{m}^{2}$ )
GEOS 280
GEOS 340
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.

* "Additional Requirements" course as defined in Item 3, page 18


## BS 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)
B- 280 Field and Analytical Methods I (2)
330 Structural Geology (4)
B 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 an upperdivision elective.

## REQUIRED COURSES (35-36 S.H.)

## Geoscience - GEOS (12 S.H.)

240 Watershed Science (4)
m 320 Optical Mineralogy and Petrology (4)
to 415 Advanced Geomorphology (4) OR
解 420 Applied Hydrogeology (4)
Chemistry - CHEM (4 S.H.)

* 212 Principles of Chemistry I (4)

Physics/Chemistry (8 S.H.)
Choose one of the following two courses (4 S.H.):

* 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 - MATH (6-8 S.H.)
150 Modeling Using Precalculus and Statistics (3) AND MATH 155 Modeling Using Calculus (3) OR
120 Precalculus (4) AND MATH 160 Calculus I (4) OR
160 Calculus I (4) AND MATH 165 Calculus II (4) OR
150 Modeling Using Precalculus (3) AND MATH 160 Calculus I (4) OR
155 Modeling Using Calculus (3) AND MATH 165 Calculus II (4)

## Computer Skills (2-3 S.H.)

Choose one of the following two courses:
CME 182 Engineering Graphics and Design (2) OR
CS 130 Visual Basic (3)

## English - ENG (3 S.H.)

Choose one of the following two courses:
R 439 Technical Writing (3) OR
449 Scientific Writing (3)

## GEOSCIENCE ELECTIVES (9-12 S.H.)

Select from the "Electives Pool" list (page 120), except for geoscience courses listed as requirements for the major.

## BS 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 106.

## UNIVERSITY STUDIES COURSES (3O 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 and 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 ( 3 S.H. may be included if GEOS 450 or GEOS 425 is taken as an elective for the major.)

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)
-2 280 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 - GEOS (20-21 S.H.)
240 Watershed Science (4)
325 Environmental Geoscience (3)

* 370 GIS and Imaging Techniques (3)

400 Directed Research in Geoscience (2-3)
旳 415 Advanced Geomorphology (4)
po 420 Applied Hydrogeology (4)

## OTHER REQUIRED COURSES (43-46 S.H.)

## Biology - BIOL (12 S.H.)

* 241 Basics of Life (4)
* 242 Organismal Diversity (4)

312, 313 General Ecology, Ecology Lab (4)
Chemistry-CHEM (12 S.H.)

* 212, 213, Principles of Chemistry I, II (8)

320 Environmental Chemistry (4)
Mathematics - MATH (6-8 S.H.)
150 Modeling Using Precalculus and Statistics (3) AND MATH 155 Modeling Using Calculus (3) OR
120 Precalculus (4) AND MATH 160 Calculus I (4)
Physics - PHYS (4 S.H.)

* 115 Conceptual Physics (4) OR
* 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)

335 Plant Ecology (4)
360 Entomology (4)
$\dagger$ - 415 Ecology of Large Rivers (4) (See below)
420 Limnology (4) (See below)
Chemistry-CHEM
425 Analytical Chemistry I (4)
436 Topics in Environmental Chemistry (3)
$\dagger$ 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. At least two courses must be used to fulfill the elective requirement.

Courses totaling 6-8 S.H. to be chosen from:
Geoscience-GEOS

* 320 Optical Mineralology and Petrology (4)

385 Geology of North America (3)
405 Current Topics in Geoscience (1-3)

```
    425 Global Climate Change (3)
    450 Travel Study in Costa Rica (3)
    470 Geologic Research Strategies (2)
Biology - BIOL
@ 415 Ecology of Large Rivers (4) OR
    420 Limnology (4)
```

Statistics-STAT
210 Statistics (3)

## BA 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 their academic 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 Department of Geoscience 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 BA degrees in Geoscience.

## BA MAJOR - GEOSCIENCE OPTION (GSCE) <br> 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 120), 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.)

## BS MAJOR - EARTH SCIENCE (TEACHING) (ESCT) <br> 124-126 S.H. (128 S.H. required for graduation)

Note: When this catalog went to print, all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact your program advisor and refer to the Teacher Education Addendum (www.winona.edu/education/advising) for the latest information about program requirements whether you are (1) applying to a teacher education program, (2) currently enrolled in a teacher education program, or (3)
expecting to graduate with a teacher education degree in 2010 or 2011.
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 license to teach grades 5-12 science 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 Department of Geoscience 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.

## UNIVERSITY STUDIES (USP) (19 S.H.)

## Basic Skills (7 S.H.)

ENG 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; 3 S.H. filled by EDUC
305 below)
Natural Science (0) (filled by major requirements)
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)
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)
B 340 Sedimentology and Stratigraphy (4)
OR GEOS 415 Advanced Geomorphology (4) (Re)
400 Directed Research (2-3)

## OTHER REQUIRED COURSES (46-48 S.H.)

Biology - BIOL (8 S.H.)

* 241 Basics of Life (4)
* 242 Organismal Diversity (4)

Chemistry-CHEM (8 S.H.)
*212, *213 Principles of Chemistry I, II (8)
Physics - PHYS (12 S.H.)
*201, *202 General Physics I, II (8)
311 Science Teaching Methods (4)
Mathematics - MATH (6-8 S.H.)
150 Modeling Using Precalculus and Statistics (3), MATH 155
Modeling Using Calculus (3) OR
120 Precalculus (4) AND MATH 160 Calculus I (4)
Philosophy - PHIL (3 S.H.)

* 240 Philosophy of Science (3) (counts as USP Humanities)

Health, Exercise Science and Rehabilitative Sciences - HERS (3 S.H.)
204 Personal and Community Health (3) (counts as USP Physical Development and Wellness)

## Special Education - SPED (3 S.H.)

* 400 Education of Exceptional Children/Youth (3) (counts as USP Social Sciences)
Women's and Gender Studies - WAGS (3 S.H.)
220 Power, Privilege, and Gender (3) (counts as USP Multicultural Perspectives)


## PROFESSIONAL EDUCATION SEQUENCE (32 S.I.)

## Notes:

1. Students must be admitted to the teacher education program before they enroll in Professional Education Sequence courses. See your academic advisor or the Department of Education Admissions Coordinator for more information.
2. 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 Teacher Education Programs section of this catalog (page 216).

* EFRT 305 Human Development and Learning (4)

EFRT 308 Human Relations and Student Diversity (3)
解 EFRT 312 Instructional Planning and Assessment: Secondary (3)
EDUC 429 Secondary Reading and Teaching Strategies (4)
B EFRT 449 Middle Level Philosophy, Organization and Planning (3)
\& EFRT 459 The Professional Educator (3)
E EDST 465 Student Teaching (12)
Note: EFRT 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 $\mathrm{K}-12$ students on their science fair projects
2. Hosted a geoscience visit by a $\mathrm{K}-4$ class
3. Hosted a geoscience visit by a $5-12$ class
4. Worked as a departmental teaching assistant or peer tutor in geoscience.

## BS MINOR - GEOSCIENCE (GEOS)

24-25 S.H.

## REQUIRED COURSES - GEOS (9-10 S.H.) <br> 120 Dynamic Earth with Laboratory (4) <br> OR GEOS 121 Dynamic Earth (3) <br> 130 Earth and Life through Time (4) <br> B-280 Field and Analytical Methods I (2)

## GEOSCIENCE ELECTVES (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):

220
240
Optical Mineralogy and Petrology (4)
325 Environmental Geoscience (3)
B 340 Sedimentology and Stratigraphy (4)
350 Geophysics (4)
w 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)
邹 415 Advanced Geomorphology (4)
to 420 Applied Hydrogeology (4)
425 Global Climate Change (3)
450 Travel Study in Costa Rica (3)
470 Geological Research Strategies (2)

Astronomy with Laboratory (4)
Astronomy (3)
Geology in the National Parks (3)
Geology of the Mississippi River (3)
Oceanography with Laboratory (4)
Oceanography (3)
Meteorology with Laboratory (4)
Meteorology
Dynamic Earth with Laboratory (4)
Dynamic Earth (3)
Earth and Life through Time (4)

## COURSE DESCRIPTIONS - 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 fall semester. Note: Students may enroll in either GEOS 105 or GEOS 106, but they cannot earn credit for both courses.

107 - Geology in the National Parks (3 S.H.)
A study of geology in U.S. National Parks reveals how Earth processes have interacted with one another and with the bedrock to create landscapes and the geological framework of the North American Continent. Lecture only; no laboratory. Prerequisites: None. Offered fall semester 2009 and on demand in subsequent years.

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 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 spring semester. Note: Students may enroll in either GEOS 110 or GEOS 111, but they cannot earn credit for both courses.

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)

## 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 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 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 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. Field trips required. Prerequisite: GEOS 120 or instructor's permission. Corequisite: GEOS 280. Offered 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 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. Usually taken with GEOS 220. Field trips required. Offered 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 combined in studio format. 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. Discussionoriented lecture format. Lecture only. Prerequisite: Any University Studies Natural Science laboratory course or instructor's permission. Offered alternate years, usually 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 combined in studio format. Prerequisite: GEOS 220. Field trips

## required. Offered fall 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 280 and ENG 111. Offered spring semester.

## 350 - Geophysics (4 S.H.)

An overview of how geophysics is used to understand the Earth, covering both solid Earth geophysics and near surface geophysical techniques. Topics include planetary formation, gravity, magnetism, energy flow, seismology, DC resistivity, electromagnetic methods, and ground penetrating radar. An emphasis is placed on developing a quantitative understanding of Earth processes through lecture, laboratory, and outdoor fieldwork with nearsurface geophysical equipment. Field trips required. Prerequisites: GEOS 130 or instructor's permission. Offered alternate years, 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 discussion. 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 spring semester.

## 450 - Travel Study in Costa Rica (3 S.H.)

Focuses on student-based field research to assist the municipalities of Playa Dominical and Playa Uvita in developing their natural resources, tourism products, and associated services. Students will inventory natural resources, gather tourism demand and supply data, and participate in constructing a database to help local officials make better tourism-related decisions. Prior to the research study, students will be exposed to basic tourism and natural resources development concepts that have applications in Playa Dominical and Playa Uvita. Post-study work will focus on report development and the assessment of other tourism products and services in Costa Rica.
Prerequisites: Instructor's permission and concurrent enrollment in MKTG 450 and RTTR 450. Offered most May terms subject to student demand.
470 - Geological Research Strategies (2 S.H.)
Instruction in designing, planning, and conducting geological research. Students will gain experience in background research using scientific
literature, writing a research proposal, planning a research budget, project management, data quality control and assurance procedures, conducting field and laboratory research, and setting realistic goals and deadlines for project completion. Course activities and lectures will be adapted to specific student projects. Includes some lecturing; however, the course delivery style will emphasize the value and importance of peer-to-peer review, discussion, and collaboration in completing scientific research. Usually taken before
or concurrently with GEOS 400. Prerequisite: Instructor's permission. Offered each semester, subject to sufficient student interest.

## 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 fall semester.

## GLOBAL STUDIES

Minné Hall, Room 120 (507-457-5500; fax 507-457-2621)
www.winona.edu/globalstudies
Yogesh Grover (Director)

## FACULTY

Michael Bowler, Associate Professor; BA, University of Notre Dame; MA, MSc, PhD, Syracuse University; 2004 -
Linda D'Amico, Associate Professor; BS, MA, PhD, Indiana University-Bloomington; 2000 -
Yogesh Grover, Professor; BA, MA, University of Delhi (India); PhD, University of Missouri-Columbia; 1988 -
Matthew Strecher, Associate Professor; BA, MA, University of Texas; PhD, University of Washington; 2007 -
Weidong Zhang, Assistant Professor; BA, MA, Nanjing University (China); MA, PhD, University of Iowa; 2007 -

## 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 BA Major and a BA 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 independently or combined with another major or minor. Several University Studies Program (general education) courses also fulfill the requirements of this major; thus students may complement Global Studies with another major or minor. 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 19, or visit http://www.winona.edu/usp/default.htm for the most up-to-date list.

## PROGRAM REQUIREMENTS

Students intending to major in Global Studies must complete all the university graduation requirements (page 23). Courses fulfilling the major requirements must be taken for credit only. At least 21 of the 58 required 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. Students testing out of language courses may use a passing grade to satisfy the language requirements of the major. The P/NC option is available to nonmajors 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 (m)
GS 360 Contemporary Asian Issues (3)
Writing ( $\mathbb{C}$ )
GS 355 Asian International Relations (3)

## BA MAJOR - GLOBAL STUDIES

58 S.H. (No Minor Required)

## REQUIRED COURSES (6 S.H.)

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 one of the following regions of the world: Asia, Europe, Latin America, or North America.
Students can examine the impact of global developments on the region
they choose to study, and conversely, the impact of regions in influencing global forces. The emphasis upon global-regional interaction is the distinguishing feature of this program.

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.

## MAJOR ELECTIVES (15 S.H.)

Electives (for majors and minors) are organized in the following four categories:

- 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 resources can be responsibly managed.
- Global Governance: Courses in this category examine whether current international organizations can adequately cope with contemporary problems caused by globalization. These courses also examine efforts by various groups and countries to develop rules, norms, and institutions
= Oral Flag 阿 = Math/Critical Analysis Flag 阿 = Writing Flag
that can respond consistent with universal standards of human dignity and responsibility.
- 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 the spread of technology. They also examine expression and culture in different parts of the world and the dynamic of conflict and cooperation between local and global cultures.
- Global Economy: Courses in this category deal with the emergence of the global market economy, the way in which it operates, and the reaction of governments and non-governmental groups.
Students may not count more than nine credits from any one of these
categories as credit toward the major.


## GLOBAL ENVIRONMENT

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)
103 Natural Disasters (3)
104 Catastrophes and Extinctions (3)
325 Environmental Geoscience (3) (prerequisite: GEOS 120 or instructor's permission)

* 370 GIS and Imaging Techniques (3)

425 Global Climate Change (3) (prerequisite: GEOS 325 or instructor's permission)
Recreation, Tourism, and Therapeutic Recreation - RTTR
302 Adventure Travel and Tourism Development (3)

## GLOBAL GOVERNANCE

## Philosophy - PHIL

290 Introduction to War, Peace and Terrorism (3)
341 Just-War Tradition (3)
Political Science - POLS

* 130 Introduction to International Relations (3)

135 Comparative Political Systems (3)
205 United Nations in World Affairs (3)
225 Ethnic Conflict and Nationalism (3)
343 Human Rights in Theory and Practice (3)
346 International Law (3) (prerequisite: *POLS 130)
B 347 International Organization (3) (prerequisite: *POLS 130)
F 475 Democratization and Its Challenges (3) (prerequisite: *POLS 135)
m 488 Issues in International Politics (3)

## GLOBAL SOCIETY AND CULTURE

## Communication Studies - CMST

291 Topics in Multicultural Communication (3)
381 Advanced Intercultural and International Communication (3) (prerequisite: CMST 281 offered every third semester; students should check with the Program Director to see when this course will be offered.)

## Computer Science - CS

110 Computers in a Global Society (3)
Educational Foundation, Research and Technology - EFRT
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)
225 Topics in Literature: Meeting of East and West in Literature (1-2)
327 Genres of Literature: Reading Sacred Texts (1-2)
Mass Communication - MCOM
356 Media and Society International (3)
B 450 International Broadcasting (3) (prerequisite: MCOM 100)
Music - MUS
114 World Music (3)
Philosophy - PHIL
330 Biomedical Ethics (3)
Recreation, Tourism, and Therapeutic Recreation - RTTR
265 Leisure in Different Cultures (3)
390 Tourism Planning (3)

Social Work - SOCW
445 Globalization of Social Welfare (3) (prerequisite: SOCW 340)
Sociology - SOC
340 Social-Cultural Anthropology (3) (prerequisite: *SOC 150)
421 Urban Sociology (3) (prerequisite: *SOC 150)

## GLOBAL ECONOMY

## Accounting-ACCT

424 International Taxation (3) (prerequisite: *ECON 202)
Business Administration - BUSA
411 International Business Law (3) (prerequisite: BUSA 291 or junior standing)
Economics (ECON) and Finance (FIN)
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)
Geography-GEOG
211 Economic Geography (3)
Global Studies - GS
335 Global Poverty and Sustainable Development (3)
Management-MGMT
345 International Business (3)
475 International Management (3) (prerequisite: MGMT 345, junior standing, or instructor's permission)
477 International Human Resources Management (3) (prerequisite:
MGMT 315 or 325 and 317, junior standing, or instructor's permission)
Marketing-MKTG
105 Marketing in a Global Society (3)
331 International Marketing (3)
Political Science - POLS
342 International Political Economy (3) (prerequisite: *POLS 130)
GENERAL ELECTIVES - GS
202 Cultural Diversity Laboratory (1-2)
205 Cultural Encounters (3)
350 Cross-Cultural Field Experience (1-9)
450 Global Studies Internship (1-21)
451 Global Studies Internship (3)
460 Independent Study (1-9)

## PART II: REGIONAL PERSPECTIVES

(37 S.H.)
Students must choose one of the following areas of concentration: Asian Studies, European Studies, Latin American Studies, or North American Studies.

## ASIAN OPTION (GSAS)

## REQUIRED COURSE (3 S.H.)

GS 250 Introduction to Asia (3)

## FOREIGN LANGUAGE AND CULTURAL IMMERSION (16 S.H.)

## Chinese-CHIN

101 Beginning Chinese I (4)
102 Beginning Chinese II (4)
201 Intermediate Chinese I (4)
202 Intermediate Chinese II (4)

## Japanese - JPN

101 Beginning Japanese I (4)
102 Beginning Japanese II (4)
201 Intermediate Japanese I (4)
202 Intermediate Japanese II (4)
A minimum of 12 credits in Chinese or Japanese is required. The remaining four credits can be fulfilled by taking additional courses in these languages or by taking an 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 who test out of lower-division language courses must complete the 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 and if they take an equivalent number of credits as listed above with the permission of the program director.

Note: Students who received a high school diploma from a Chinese- or Japanese-speaking country cannot register for CHIN/JPN 101 or 102.

## ELECTIVES - REGIONAL PERSPECTIVES (18 S.H.)

Elective courses in Regional Perspectives are classified in these categories:

- Societies in Transition: Courses in this category relate to the geography of the selected region, the history of its peoples, and various aspects of its evolving societies.
- Power, Wealth, and the Environment: Courses in this category pertain to the general political and economic institutions, policies and processes in selected region. They also explore the impact of economic development on the physical environment and examine the policies proposed/adopted to deal with this phenomenon.
- Cultural Identity and Expressions: Courses in this category pertain to the heterogeneity of societies in the selected region and the richness of its social and cultural group life, including how these groups express themselves in different ways
Students must take at least one course from each category. 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

English - ENG
225 Topics in Literature [Changing Role of Women in Asian Literature] (1-2)
Geography - GEOG
223 Geography of the Orient (3)
Global Studies - GS
215 Introduction to Japanese Culture (3-4)
300 Contemporary China (3-4)
315 Special Topics in Japanese Studies (1-12)
345 Media, Popular Culture, and Changing Chinese Society
m 360 Contemporary Asian Issues (3)
History-HIST
123 East Asian Civilization (3)
341 Modern Japan (3) (prerequisites: HIST 123, ENG 111)
343 Modern China (3)
447 America in the Vietnam War Era (3) (prerequisite: *HIST 151 or instructor's permission)

## POWER, WEALTH, AND THE ENVIRONMENT

## 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 EXPRESSIONS

| Chinese - CHIN |  |
| :--- | :--- |
| 301 | Advanced Chinese (4) |
| English - ENG |  |
| 221 | Topics in World Literature [Women in Chinese Litera |
| 327 | Genres of Literature [Modern Japanese Novel] (1-2) |
| Global Studies - GS |  |
| 255 | Peoples and Cultures of South and Southeast Asia (3) |
| 315 | Special Topics in Japanese Studies (1-12) |
| 325 | Readings in Japanese Literature (3-4) |
| Japanese -JPN |  |
| 301 | Advanced Japanese (4) |
| Music-MUS |  |
| 115 | Music of the East and Southeast Asia (3) |
| Theatre and Dance - THAD |  |
| 312 | Japanese Classical Theatre (3) |

EUROPEAN STUDIES (GSEU)
REQUIRED COURSE (3 S.H.)
FLAN 218 The New Europeans: Understanding the EU (3) OR
HIST 122 Western Civilization 1815-Present (3)

## FOREIGN LANGUAGE AND CULTURAL IMMERSION (16 S.H.)

Intermediate proficiency (FLAN 202 or equivalent) in one of the following Spanish, French or German:

SPAN 101 OR FREN 101 OR GERM 101
$\begin{array}{lll}\text { SPAN 102 } & \text { FREN 102 } & \text { GERM 102 } \\ \text { SPAN 201 } & \text { FREN 201 } & \text { GERM } 201\end{array}$
SPAN 202 FREN 202 GERM 202
With the approval of the program director foreign language requirements can be waived if a European language is the student's native language and if the student takes an equivalent number of credits from the following electives.

## ELECTIVES - REGIONAL PERSPECTIVES (18 S.H.)

Elective courses in Regional Perspectives are classified in these categories: Societies in Transition; Power, Wealth, and the Environment; and Cultural Identity and Expressions. These categories are defined above. Students must take at least one course from each category. Courses listed in more than one category can satisfy the requirements of only one category.

## SOCIETIES IN TRANSITION

## Foreign Languages - FLAN

218 The New Europeans: Understanding the EU (3)
History-HIST
122 Western Civilization 1815-Present (3)
335 The Holocaust (3)
340 History of Christianity (3)
355 European Intellectual and Cultural History (3)
397 Topics in History (3) (World War I and Modern Memory or Environmental History of Europe)
398 Topics in History with Oral Communication Emphasis (3) (Reading Modern History or Classical Greece only)
401 Ancient Rome (3) (Prerequisite: HIST 120 or instructor's permission)
403 Middle Ages (3) (Prerequisite: HIST 120 or instructor's permission)
408 Renaissance (3) (Prerequisites: HIST 120 and HIST 121 or instructor's permission)
409 Reformation (3) (Prerequisite: HIST 120 and HIST 121 or instructor's permission)
412 French Revolution and Napoleon (3) (Prerequisite: HIST 121 or instructor's permission)
417 Hitler and Nazi Germany (3) (Prerequisite: HIST 122 or instructor's permission)
421 Tudor and Stuart England (3) (Prerequisite: HIST 121 or instructor's permission)
423 Modern England (3)
434 Soviet Russia (1905-Present) (3) (Prerequisites: HIST 122 and HIST 151 or instructor's permission)
440 World War II (3) (Prerequisites: HIST 122 and HIST 151 or instructor's permission)

POWER, WEALTH, AND ENVIRONMENT
GEOG 326 Geography of Europe (3)
POLS 332 European Political Systems (3)

## CULTURAL IDENTITY AND EXPRESSIONS

## French-FREN

204 Special Topics in French Literature (2)
205 Special Topics in French Culture (2)
301 French Composition (4)
302 French Civilization and Culture (4)
401 Phonetics and Pronunciation (3)
402 French Literature I (3)
403 French Literature II (3)
404 French Literature III (3)
German - GERM
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 Century Literature (3)
403 20th Century Literature (3)
Spanish-SPAN
300 Spanish Linguistics (2)
301 Spanish Composition and Conversation (4)

* 302 The Culture of Spain (3)

401 Spanish Peninsular Literature I (3)
402 Spanish Peninsular Literature II (3)

## LATIN AMERICAN STUDIES (GSLA) <br> REQUIRED COURSES (3 S.H.) <br> GS 232 Introduction to Latin America (3) OR <br> HIST 165 Latin American History (3)

## FOREIGN LANGUAGE AND CULTURAL IMMERSION (16 S.H.)

Intermediate proficiency (FLAN 202 or equivalent) in the following:

## Spanish - SPAN

101 Elementary Spanish I (4)
102 Elementary Spanish II (4)
201 Intermediate Spanish I (4)
202 Intermediate Spanish II (4)
With the approval of the program director foreign language requirements can be waived for students if Spanish is their second language, provided they take an equivalent number of credits from the following electives.

## ELECTIVES - REGIONAL PERSPECTIVES (18 S.H.)

Elective courses in Regional Perspectives are classified in the following categories: Societies in Transition; Power, Wealth, and the Environment; and Cultural Identity and Expressions. These categories are defined on page 124. Students must take at least one course from each category. Courses listed in more than one category can satisfy the requirements of only one category.

## SOCIETIES IN TRANSITION

## Global Studies - GS

232 Introduction to Latin America (3)
233 Latin American and Caribbean Immigrants in the U.S. (3)
History-HIST
165 Latin American History (3)
461 Latin American Social Revolution (3)
463 History of Mexico (3)
467 Foreign Travelers in "Exotic" Lands (3)
468 History of the Andean Nations (3)
469 History of Brazil (3)
Recreation, Tourism, and Therapeutic Recreation - RTTR
450 Travel Study in Costa Rica (2)

## POWER, WEALTH, AND ENVIRONMENT

GEOG 225 Geography of Latin America (3)
POLS 335 Latin American Political Systems (3)
WAGS 235 Gender and Social Justice Issues in Latin America (3)

## CULTURAL IDENTITY AND EXPRESSIONS

GS
435 Indigenous Social Movements in Latin America (3)
SPAN 204 Special Topics in Hispanic Literature and Culture (2)
SPAN 303 The Culture of Latin America (3)
SPAN 403 Latin American Literature (4)
WAGS 234 Gender and Latin American Society through 20th Century Literature (3)

## NORTH AMERICAN OPTION (GSNA)

GS 210 Introduction to North America (3)

## FOREIGN LANGUAGE AND CULTURAL IMMERSION (16 S.H.)

Students must demonstrate intermediate proficiency (FLAN 202 or equivalent) in either Spanish or French. With the approval of the program director, 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.

## ELECTIVES - REGIONAL PERSPECTIVES (18 S.H.)

Elective courses in Regional Perspectives are classified in the three categories: Societies in Transition; Power, Wealth, and the Environment; and Cultural Identity and Expressions. These categories are defined on page 124. Students must take at least one course from each category. Courses listed in more than one category can satisfy the requirements of only one category.

## SOCIETIES IN TRANSITION

## Communication Studies - CMST

281 Intercultural Communication (3)
Geography - GEOG
270 Introduction to the Geography of Tourism (3)
320 Geography of the United States (3)
332 Geography of Canada (3)
Global Studies - GS
233 Latin American and Caribbean Immigrants in the U.S. (3)
History - HIST

* 150 United States History to 1865 (3)
* 151 United States History since 1865 (3)
em 315 Women in US History (4) (prerequisites: 150 or 151 and ENG 111)

365 American Legal History (3) (prerequisites: HIST 150 and 151 or instructor's permission)
463 History of Mexico (3)
485 Contemporary America 1945-Present (3) (prerequisite: HIST 151)
486 American Intellectual and Cultural History (3)
488 American Constitutional History (3)
Mass Communication-MCOM
100 Mass Media and Society (3)
Music-MUS

* 110 History of American Jazz (3)
* 122 History of Rock Music (3)

Philosophy - PHIL
335 Constitutional Philosophy (3)
Sociology - SOC
440 Sociology of Dying and Death (3) (prerequisite: *SOC 150)
450 Sociology of Aging (3) (prerequisite: *SOC 150)
Women's and Gender Studies - WAGS
235 Gender and Social Justice Issues in Latin America (3) [North American focus]

## POWER, WEALTH, AND THE ENVIRONMENT

## Economics - ECON

厄 304 Money and Banking (3) (prerequisites: ECON *201 and *202)
315 Environmental and National Resources Economics (3) (prerequisite: *ECON 201)
320 Business-Government Relations (3) (prerequisite: *ECON 201)
435 The North American Economies (3) (prerequisites: ECON *201 and *202)
Geoscience-GEOS
107 Geology in the National Parks (3)
108 Geology of the Mississippi River (3)

* 130 Earth and Life through Time (4) (North American Focus)

385 Geology of North America (3) (prerequisite: GEOS 220)

## Political Science - POLS

* 120 Introduction to American Politics (3)

315 American Political Thought (3) (prerequisite: POLS 120 or instructor's permission)
320 Constitutional Law (3) (prerequisite: POLS 120)
321 The American Presidency (3) (prerequisite: POLS 120)
340 Environmental Policy (3)
360 The American Congress (3) (prerequisite: POLS 120)
422 American Foreign Policy (3) (prerequisite: POLS 130)
m 460 North American Relations (3) (prerequisite: POLS 130)
Women's and Gender Studies - WAGS
235 Gender and Social Justice Issues in Latin America (3)

## CULTURAL IDENTITY AND EXPRESSIONS

## Art－ART

＊ 224 American Art（3）
252 Survey of Women Artists（3）
Communication Studies－CMST
289 Gender and Communication（3）
English－ENG
220 Multicultural American Literatures（3）
History－HIST
220 Introduction to African American History（3）
235 History of the American Indian（3）（prerequisite：ENG 111）
造 315 Women in US History（4）（prerequisites：HIST＊150 or＊151 and ENG 111）
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）
423 Race Relations and Minority Groups（3）（prerequisite：＊SOC 150）

## BA 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）
B GS 400 Global Studies Seminar（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．These categories are defined on page 122. Students must take at least three credits from each of the categories， but may not count more than nine credits from any one of the categories as credit toward the minor．With the approval of the program director， students may use up to nine credits from the General Electives below to fulfill minor requirements．

## GLOBAL ENVIRONMENT

## 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）
103 Natural Disasters（3）
104 Catastrophes and Extinctions（3）
325 Environmental Geoscience（3）（prerequisite：GEOS 120 or instructor＇s permission）
m 370 GIS and Imaging Techniques（3）
425 Global Climate Change（3）（prerequisite：GEOS 325 or instructor＇s permission）
Recreation，Tourism，and Therapeutic Recreation－RTTR
302 Adventure Travel and Tourism Development（3）

## GLOBAL GOVERNANCE

Philosophy－PHIL
290 Introduction to War，Peace，and Terrorism（3）
341 Just－War Tradition（3）
Political Science－POLS
＊ 130 Introduction to International Relations（3）
135 Comparative Political Systems（3）
205 United Nations in World Affairs（3）
225 Ethnic Conflict and Nationalism（3）
343 Human Rights in Theory and Practice（3）
346 International Law（3）（prerequisite：＊POLS 130）
b－ 347 International Organization（3）（prerequisite：＊POLS 130）
B－ 475 Democratization and Its Challenges（3）（prerequisite：＊POLS 135）
m 488 Issues in International Politics（3）

GLOBAL SOCIETY \＆CULTURE
Communication Studies－CMST
291 Topics in Multicultural Communication（3）
381 Advanced Intercultural and International Communication（3） （prerequisite：CMST 281 offered every third semester；students should check with the Program Director to see when this course will be offered．）
Computer Science－CS
110 Computers in a Global Society（3）
Educational Foundation，Research and Technology－EFRT
450 Comparative Education（3）
English－ENG
221 Topics in World Literature［only sections with following topics： World Mythology，Families across Cultures，Beyond Europe \＆ America，Post－Colonial Literature］
225 Topics in Literature［Meeting of East and West in Literature］ （1－2）
327 Genres of Literature［Reading Sacred Texts］（1－2）

## Mass Communication－MCOM

356 Media and Society International（3）
B 450 International Broadcasting（3）（prerequisite：MCOM 100）
Music－MUS
114 World Music（3）
Philosophy－PHIL
330 Biomedical Ethics（3）
Recreation，Tourism，and Therapeutic Recreation－RTTR
265 Leisure in Different Cultures（3）
390 Tourism Planning（3）
Social Work－SOCW
445 Globalization of Social Welfare（3）（prerequisite：SOCW 340）
Sociology－SOC
340 Social－Cultural Anthropology（3）（prerequisite：＊SOC 150）
421 Urban Sociology（3）（prerequisite：＊SOC 150）

## GLOBAL ECONOMY

Accounting－ACCT
424 International Taxation（3）（prerequisite：＊ECON 202）
Business Administration－BUSA
411 International Business Law（3）（prerequisite：BUSA 291 or junior standing）
Economics－ECON
404 International Economics（3）（prerequisite：ECON＊201 and＊202）
415 International Economic Development（3）（prerequisites：ECON ＊201 and＊202）
Finance－FIN
440 International Finance（3）（prerequisite：FIN 360）
Geography－GEOG
211 Economic Geography（3）
Global Studies－GS
335 Global Poverty and Sustainable Development（3）
Management－MGMT
345 International Business（3）
475 International Management（3）（prerequisite：MGMT 345，junior standing，or instructor＇s permission）
477 International Human Resources Management（3）（prerequisites： MGMT 315 or MGMT 325 and MGMT 317，junior standing， or instructor＇s permission）

## Marketing－MKTG

105 Marketing in a Global Society（3）
331 International Marketing（3）
Political Science－POLS
342 International Political Economy（3）（prerequisite：＊POLS 130）
GENERAL ELECTIVES－GS
202 Cultural Diversity Laboratory（1－2）
205 Cultural Encounters（3）
350 Cross－Cultural Field Experience（1－9）
450 Global Studies Internship（1－21）
451 Global Studies Internship（3）
460 Independent Study（1－9）

## COURSE DESCRIPTIONS

GLOBAL STUDIES - GS

## 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.
202 - Cultural Diversity Laboratory (1-2 SH)
The Diversity Lab is a 1 - to 2 -credit service learning course predicated on the notion that service learning is a means of integrating classroom theory with active learning in the world and a way to help others while gaining first-hand knowledge about another culture. Through structured service opportunities, students will discern how theoretical aspects of higher education can facilitate successful relations with minority communities in general and with Hmong and Latino preschoolers and their families in particular. Students will generate enriching literacy and school readiness activities for young children within their homes/communities and thereby link minority communities with the University community in a productive and collaborative manner.

## 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.
215 - Introduction to Japanese Culture (3-4 S.H.)
This course explores Japanese culture and civilization from its prehistoric roots to the present. Beginning with physical conditions such as geography and climate, this course will examine how such realities have affected religious, historical, political, and regional social structures. From these, the course will proceed to cultural productions, including both "high" and "popular" culture. The goal of the course is not merely to show students how Japan is, but to encourage them to think about why Japan has emerged as it has during the past 2,500 years and to develop an informed perspective on where Japan and its people may be headed in the future.

232 - Introduction to Latin America (3 S.H.)
The Latin America-Caribbean region is one of the world's most misunderstood regions. Geograpically, 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-American, 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 - Latin American and Caribbean Immigrants in the U.S. (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.

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 every two years.

300- Contemporary China (3-4 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.

## 315 - Special Topics in Japanese Studies (1-12 S.H.)

This course is designed to facilitate Japanese studies that do not fall under the rubric of other established courses. Topics may include Japanese history,
linguistics, economics, business, popular culture, performing or visual arts, or any other field of study related to Japan, depending on the professional training and expertise of the instructor.

## 325 - Readings in Japanese Literature (3-4 S.H.)

This course is designed to introduce students to various topics in Japanese literature. It may be a survey of general literary movements, or it may be organized along specific themes, such as Japanese literary modernism and postmodernism, war literature, the relationship between literature and the media, and so on. Prior knowledge of Japanese language and culture will be an advantage, but is not required as all texts will be read in English translation.

335 - Global Poverty and Sustainable Development (3 S.H.) This course provides an interdisciplinary analysis of global material poverty and sustainable development, and related key socioeconomic issues and objectives. Students have the opportunity to study particular global and local approaches to poverty reduction and sustainable development, including the work of global and local development organizations. Once students have completed the campus-based course, they will have the option of completing an additional three credits by participating in a service learning project based in a developing country. Offered every other year.

## 345 - Media, Popular Culture, and Changing Chinese Society

 (3-4 S.H.)This course is designed to provide students with a critical introduction to media and popular cultural landscape and changing cultural practice in contemporary China. It examines the complex interplay between media, popular culture, and the fast changing Chinese society in the reform era (1978 to present). Students will learn to assess the form, meaning, and significance of media and popular culture; they will also learn to analyze the formation of cultural and social identity of Chinese through concrete case studies. Students will study popular culture as something more than leisurely entertainment; they will learn about it as a cultural process already inscribed in relations of power. No prior knowledge of China or the Chinese language is required.

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 every 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.

435- Indigenous Social Movements in Latin America (3 S.H)
This course allows student to engage in an in-depth analysis and research of indigenous social movements in Latin America. In addition to exploring diverse ethnic traditions, the course will analyze and compare how indigenous groups are transforming cultural, economic, and political life in the region. Prerequisites: GS 200 and GS 232.

450 - Global Studies Internship (1-21 S.H.)
This course enables students to gain practical hands-on experience and develop professional work-related skills in a public or private organization that is either based abroad or that is based in the U.S. but has international operations. Global studies majors will be expected to examine the relevance of what they learn in the classroom in the context of actual field operations and to report on their overall experience. Non-majors may take this course to supplement their academic preparation. Only six credits can be applied toward the global studies major or minor. (This course can be taken for a maximum of 21 credits, but only 1-15 credits can be taken during a semester.) $\mathrm{P} / \mathrm{NC}$ only.

451- Global Studies Internship (3 S.H.)
This course enables students to have practical hands-on experience and develop professional work-related skills in a public or private organization that is either based abroad or that is based in the U.S. but has international operations. Global studies majors will be expected to examine the relevance
of what they learn in the classroom in the context of actual field operations and to report on their overall experience. Non-majors may take this course to supplement their academic preparation. Grade only.

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 nine semester hours. Prerequisite: Permission of the instructor and GSP Director.

## 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 - Intermediate 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 - Intermediate 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.

## 301 - Advanced Chinese (4)

CHIN 301 is designed for students who have completed two years of college-level training in Chinese to continue to develop their skills of aural understanding, speaking, reading and writing. Students will continue to
improve their linguistic skills with a manageable degree of challenge. At the functional level, this course aims at helping students solidify their ability to comprehend and produce paragraph-level Chinese. It enables students to understand face-to-face conversations on most familiar topics, give factual accounts, read materials written in formal shumianyu Chinese, and write simple essays, reports, and all types of correspondence.

## 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 - Intermediate 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 - Intermediate 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.
301 - Advanced Japanese (4 S.H.)
JPN 301 is designed to build upon skills acquired in the JPN 101-202 (Beginning and Intermediate Japanese) course sequence. While continuing its general emphasis on building speaking proficiency, Advanced Japanese also seeks to expand reading and writing skills; the course includes substantial reading assignments. Students will also be required to master approximately 400 new Kanji (Chinese characters). Offered yearly, fall semester.

# HEALTH, EXERCISE AND REHABILITATIVE SCIENCES <br> Maxwell Hall, Room 351 (507-457-2600) 

www.winona.edu/hers/
Shellie Nelson (Chairperson)

## FACULTY

Dawn Anderson, Professor; BA, University of Minnesota-Morris; MS, Iowa State University; PhD, Ball State University, Muncie (IN); 1992 Phillip Appicelli, Professor; BA, College of St. Scholastica; MA, PhD, Kent State University; 1998 -
Gail Grimm, Professor; BS, University of Wisconsin-Platteville; MS, University of Wisconsin-Madison; PhD, University of Arkansas-Fayetteville; 1989 -
Gary Kastello, Professor; BS, University of Wisconsin-La Crosse; MA, Ball State University; PhD, University of Wisconsin-Milwaukee; 1997 -
Sang-Min Kim, Assistant Professor; BA, MA, EdD, University of Northern Iowa; 2005 -
Shellie Nelson, Professor; BS, Winona State University; MS, University of Wisconsin-La Crosse; EdD, Saint Mary's University of Minnesota; 1988 -
Kyle Poock, Assistant Professor; Baseball Coach; BS, MS, Winona State University; 1995 -
Peter Sternberg, Associate Professor; BA, University of Kent at Canterbury (UK); RGN, London Hospital, UK; Post-Graduate Diploma Health Ed., University of London; PhD, Leeds Metropolitan University, UK; 2002 -
Brian Zeller, Associate Professor; BS, University of Wisconsin-La Crosse; MS, Indiana State University; PhD, 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. Our goal is to prepare graduates 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 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 the following degrees:

- BS Major - Athletic Training
- BS Major - Exercise and Rehabilitative Sciences

Cardiopulmonary Rehabilitation
Exercise Science
Movement Science

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- BS Major - Health Promotion

Community Health
School Health

## 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 Athletic Training major or the Exercise and Rehabilitative Sciences: Movement Science option.

Athletic training majors who are interested in completing pre-professional course sequences in preparation for graduate study should contact Dr. Shellie Nelson at 507-457-5214 (snelson@winona.edu) or Dr. Brian Zeller at 507-457-5575 (bzeller@winona.edu). The Movement Science option (ERMS), is designed to offer pre-professional students, especially pre-physical therapy and pre-occupational therapy students, a course of study that meets prerequisites for graduate work in these fields, within the 120 credits required to graduate from Winona State University. Dr. Gary Kastello is responsible for advising students interested in these pre-professional programs or graduate study in a movement science field, such as biomechanics, kinesiology, exercise physiology, or motor control. Students may contact Dr. Kastello at 507-457-5219 (gkastello@winona.edu). For additional information about pre-professional sequences, see page 189.

## 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 of the criteria for each scholarship is available in the HERS Department office.

## EXPENSES

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 have additional annual expenses for professional liability insurance and background studies. The costs for these requirements will be established each academic year.

## BACKGROUND STUDIES

Schools, businesses, nonprofits, and health care facilities emphasize security and safety for all. Therefore, students involved in educational experiences in the community are required to complete a background study. Background screening is often required by federal and/or state law. Students should be aware that having criminal charges on their record may preclude them from educational experiences, professional certifications, or future employment.

## LIABILITY INSURANCE

A blanket professional liability insurance policy for students is secured annually through an insurance provider determined by the Minnesota Office of Risk Management in cooperation with the Minnesota State Colleges and Universities. Coverage is based on an incident/occurrence and aggregate rate basis. Student teachers may also be required to purchase other liability insurance. 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 HERS internship program provides significant experiential learning opportunities valuable to a student's professional development. The field experience provides a means of reinforcing and enhancing academic preparation while applying knowledge and skills in a work environment. Through cooperative planning and implementation in partnership with the internship agency (site), the HERS Department requires the following internships for eligible degree candidates:

| HERS 496 | Community Health | 10 credits |
| :--- | :--- | ---: |
| HERS 497 | Cardiopulmonary Rehabilitation | 8 credits |
| HERS 499 | Exercise Science | 8 credits |

The internship experience serves as a practical vehicle of transition, helping students move from classroom to workplace settings. With the structured environment of a University-approved agency/site and under the direct supervision of a University-approved professional, students receive guidance in transitioning from the academic setting into the role of an employee in a "real life" worksite.

## TRAVEL ABROAD

The HERS Department offers a unique opportunity for HERS majors to spend a semester in England at the University of Salford. This travel abroad opportunity is designed specifically for HERS students to receive all the benefits of spending a semester abroad and receive WSU credit for their courses. Imagine taking credits that count toward your intended major, learning to apply principles related to your field in a different culture, and experiencing life as a student in another country! This travel abroad opportunity is available fall semester only; no more than five students are selected each year. A formal application to the HERS Department is required. Upon approval, students must complete all the requirements as defined by the WSU Study Abroad Office prior to traveling overseas to begin the experience. For more information concerning Travel Abroad, visit the HERS Department website.

## 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 (m)
HERS 328 Behavioral Interventions (3)
HERS 380 Laboratory Methods in Exercise Science (3)
HERS 392 Injury Recognition of the Lower Body (3)

| HERS 430 | Public Health (3) |
| :--- | :--- |
| HERS 445 | Medical Aspects of Exercise (3) |
| HERS 494 | Therapeutic Interventions (4) |

Math/Critical Analysis (町)
HERS 403 Epidemiology (3)
Writing (b)
HERS 340
HERS 350
Physiology of Exercise (4)
Program Planning in Health Promotion (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.

## BS MAJOR－ATHLETIC TRAINNNG（AT）

87 S．H．
The Athletic Training major is nationally accredited by the Commission on Accreditation of Athletic Training Education（CAATE）．In addition to the academic coursework requirements，students must complete clinical education experiences and fieldwork experiences through required clinical coursework．Students who complete the clinical education and academic requirements of the major are eligible for national certification．

Students interested in majoring in Athletic Training must apply to the program，participate in a competitive selection process，and adhere to published retention guidelines．Additional information about the program can be found at www．winona．edu／athletictraining．

## CAREER OPPORTUNITIES

Winona State University has a long－standing tradition of graduates who become certified athletic trainers and make positive contributions to the allied health profession of athletic training．While some WSU graduates have secured positions with professional，semi－professional，and Olympic teams，others have qualified for positions as university head athletic trainers， athletic training clinical directors，and clinic－high school athletic trainers．
Other graduates have pursued post－graduate study in athletic training，human performance，exercise physiology，physical therapy，physician＇s assistant，and chiropractic programs．

## CORE REQUIREMENTS（47 S．H．）

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Health, Exercise and Rehabilitative Sciences - HERS (30 S.H.)
    204 Personal \& Community Health (3)
    205 Nutrition for Lifetime Wellness (3)
    235 Professional Issues in Exercise Science (3)
    280 Techniques of Fitness Programming (2)
    314 Anatomical Kinesiology (3)
\& 340 Physiology of Exercise (4)
    360 Nutrition for the Physically Active (3)
    370 Mechanical Kinesiology (3)
    389 Strength and Conditioning Principles and Programming (3)
to 403 Epidemiology (3)
Physical Education \& Sport Science - PESS (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)
Statistics - STAT (3 S.H.)
* 110 Fundamentals of Statistics (3) OR
    210 Statistics (3)
Psychology - PSY (3 S.H.)
    210 Introduction to Psychological Science (3)
```


## REQUIRED ATHLETIC TRAINING COURSES

（40 S．H．）
Health，Exercise and Rehabilitative Sciences－HERS 40 S．H．
191 Introduction to Athletic Training（1）
292 Principles of Athletic Training（3）
293 Clinical Practice I（2）
345 Emergency Response for the Professional Rescuer（3）
362 Clinical Practice II（3）
365 Clinical Decision Making I（3）
391 Injury Recognition of the Upper Body（3）
＊ 392 Injury Recognition of the Lower Body（3）
393 Therapeutic Modalities（3）
489 Clinical Decision Making II（3）
491 Therapeutic Treatment and Rehabilitation（3）
492 Administration of Athletic Training（3）
『 494 Therapeutic Interventions（4）
495 Athletic Training Capstone（3）

## SUGGESTED ELECTVES

## Biology－BIOL

171 Medical Terminology（1）
172 Medical Terminology（1）
Health，Exercise and Rehabilitative Sciences－HERS
m 380 Lab Methods（3）
B 445 Medical Aspects（3）

## Nursing－NURS

361 Pharmacology for Non－nursing Majors（1）
366 Pathophysiology（3）

## ATHLETIC TRAINING EDUCATION PROGRAM

Students accepted into the Athletic Training Program must acquire clinical experiences over a minimum of two and a half academic years as assigned by the Director of Athletic Training Education．These experiences will be on a rotation as described in the WSU Athletic Training Education Handbook．Clinical experiences may 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 or Clinical Instructors（CIs）．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 by working with football，hockey，gymnastics，soccer，basketball，volleyball，baseball， softball，track，and wrestling．Students have many opportunities to attend team practices and events，travel with teams，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 courses in athletic training．These courses expose the student to CAATE 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，and other area high schools． Students also gain valuable community－based medical experience at Sports and Orthopaedic Specialists，Sport \＆Spine Physical Therapy Clinic，Winona Area Ambulance Service，Ping Chiropractic and Wellness Center，and Winona Health．

## APPLICATION AND SELECTION INFORMATION

Students who are interested in majoring in Athletic Training should meet with the Director of Athletic Training Education and enroll in HERS 191 （Introduction to Athletic Training），BIOL 211，and BIOL 212 during their first year at WSU．Students enroll in HERS 292 and HERS 314 and begin clinical education experiences during the fall semester of the second year． Applications are due in November each year．

## Special Admission

If space is available，a special admission may be held during the summer． Students who have met all academic and clinical learning outcomes should notify the Director of Athletic Training Education that they wish to apply for special admission．Applications and interviews will be due during the last week of July．（Dates and requirements are posted and emailed to all majors．） Students admitted during the summer are expected to participate in all in－ service and clinical education opportunities available in August．When the academic year begins，students will join the previous year＇s sophomore class to progress through the Athletic Training Education Program．In addition， special admission students are required to take summer clinical education experiences．

## Application Process

Applications will be rated using the＂ATEP Application Rubric＂ （the Rubric can be found at http：／／www．winona．edu／athletictraining）． Applications will be ranked，and the top students will be invited for an interview．Interview scores（ 40 points）will be added to the Rubric scores（ 70 points）．The selection committee determines the number of students selected from each academic class．This number directly correlates with the number of clinical educators and clinical sites available each year．Each applicant must provide the following：
1．Official Documentation（20 points）should be sent from the following institutions or agencies to the Program Director．（See ATEP Application Rubric for point values for each．）
－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 292 and HERS 314 and be progressing appropriately．Other exercise and rehabilitative science and biology courses will also be evaluated
independent of the overall GPA. If space is available, students may be admitted on probation. If admitted, students will have one semester to raise their overall GPA to 2.75 or above to avoid being dismissed from the program.

- 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 the following courses at WSU: HERS 292, 293, 362, 365, 389, 391, 392, 393, $489,491,492,494$, and 495.
- Proof of First Aid and CPR Certification or First Responder Certification.
- Completed Medical Physical (form available from the Director of Athletic Training Education).
- Completed Technical Standards (form available from the Director of Athletic Training Education).
- Hepatitis B vaccinations (or declination).

2. 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 continue their Reflective Journal in HERS 292.
3. Letters of Recommendation (20 points). Each student is required to provide a total of five letters of recommendation. Two of these letters (8 points) will be from a Senior Athletic Training Student reflecting the student's daily interaction in the athletic training room. Three of these letters ( 12 points) 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.
4. Cover letter and résumé ( 10 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 résumé should also be included.
5. ACI Rating ( 10 points). The ACI with whom a student has worked during clinical experiences will have the opportunity to rate the student's performance. The ACI will evaluate the quality of the student's clinical experiences, desire to learn, depth of understanding, and potential for success in the profession.
6. Interview ( 40 points). Top ranking students will be invited for an interview. The interview score will be added to the Application Rubric score. The number of students selected for the ATEP will depend upon the number of ACIs and clinical sites available each year. Students who are selected will begin coursework and clinical education experiences in the spring semester and continue through graduation.

## WSU Athletic Training Student Retention Competencies

The following academic, clinical, and program compliance requirements apply for the Athletic Training Education Program. Detailed retention information can be found at http://www.winona.edu/athletictraining.

## Academic Requirements

The Director of Athletic Training Education reviews transcripts at the beginning of each semester. Students must:

- Meet WSU graduation standards (page 23).
- Maintain a cumulative WSU GPA not less than 2.75.
- Maintain a 2.75 overall GPA in the Athletic Training major.
- Attain a "B" or better in all athletic training courses: HERS 191, 292, $293,345,362,365,389,391,392,393,489,491,492,494$, and 495.


## Clinical Education Requirements

- Compliance with all objectives, policies and procedures established in the WSU Athletic Training Education Handbook.
- Compliance with the NATA's Code of Ethics (Athletic Training Education Handbook).
- Compliance with the WSU Student Conduct policy found at http://www.winona.edu/sld/studentpolicy.asp.
- Compliance with assignments/directions given by the athletic training Approved Clinical Instructors (ACIs) or Clinical Instructors (CIs).
- Demonstration of 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 at: www.winona.edu/athletictraining.

## Program Compliance

Athletic training students are expected to comply with all academic and clinical guidelines. Athletic training students must act in a mature, responsible manner that will reflect positively on themselves, the Athletic Training Education Program, and the University while performing academic and clinical education. These expectations, due process rights, sanctions, dismissal, appeals, and assistance procedures are clearly outlined in the Athletic Training Education Handbook (see program website www.winona.edu/athletictraining) and covered extensively in HERS 191, Introduction to Athletic Training.

## BS MAJOR - EXERCISE AND REHABILITATIVE SCIENCES 72-81 S.H. (No Minor Required)

A student choosing to major in Exercise and Rehabilitative Sciences may choose Cardiopulmonary Rehabilitation, Exercise Science, or Movement Science. Each of these programs leads to a Bachelor of Science degree. The programs in Exercise and Rehabilitative Sciences have been designed in accordance with the requirements of the leading national organizations: American College of Sports Medicine (ACSM) and the National Strength and Conditioning Association (NSCA).

- Students interested in working with cardiac or pulmonary patients in a clinical setting should choose Cardiopulmonary Rehabilitation.
- Students interested in exercise and health programming in a variety of settings such as fitness centers, worksite settings, or athletic programs should choose Exercise Science.
- 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 Movement Science.
Additional information on exercise science career opportunities can be found at www.acsm.org, www.nsca-lift.org, and www.asep.org.


## ACADEMIC REQUIREMENTS

For a checklist of the University's graduation requirements, see page 23. Specific academic requirements for Exercise and Rehabilitative Sciences majors are described within each major.

## CORE REQUIREMENTS (50 S.H.)

Health, Exercise and Rehabilitative Sciences - HERS (32 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 (3)
₹ 340 Physiology of Exercise (4)
360 Nutrition for the Physically Active (3)
(Prerequisite: HERS 205)
370 Mechanical Kinesiology (3)
(m) 380 Laboratory Methods in Exercise Science (3)

389 Strength and Conditioning Principles and Programming (3)
F4 403 Epidemiology (3)
ß- 445 Medical Aspects of Exercise (3)
Physical Education and Sport Science - PESS (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.)
361 Pharmacology for Non-Nursing Majors (1)
366 Pathophysiology (3)
Statistics - STAT (3 S.H.)

* 110 Fundamentals of Statistics (3) OR

210 Statistics (3)

## EXERCISE AND REHABILITATIVE SCIENCES: CARDIOPULMONARY REHABILITATION (ERCR)

76 S.H.
This clinically focused exercise physiology major has several career-related tracks. Its primary purpose 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. Hospitals and/or clinics 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. Practical clinical experiences in our on-campus cardiopulmonary rehabilitation program and at Community Memorial Hospital (Winona, MN ) are required. A 600 -hour "capstone" clinical internship is also required when all coursework is complete. The internship site locations are national in scope of placement.

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.asep.org/.

Academic graduation requirements include:

- Attain a grade of "C" or better in all major courses.
- Attain a 2.50 or better overall GPA.


## CORE REQUIREMENTS (50 S.H.)

See the list of Core Requirements on page 131.

## REQUIRED COURSES (26 S.H.)

```
Health, Exercise and Rehabilitative Sciences - HERS (20 S.H.)
    344 Electrocardiography (3)
    3 6 1 ~ P r a c t i c u m ~ i n ~ C a r d i o p u l m o n a r y ~ R e h a b i l i t a t i o n ~ ( 2 ) ~
    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)
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EXERCIIE AND rehabliltative ScIENCES: EXERCIISE
SCIENCE (ERES)
75 S.H.

This major prepares students to administer comprehensive health, fitness and performance programs to a variety of clients. Through coursework and other experiences, students learn how to design and administer appropriate strength, power, flexibility, agility, and cardio respiratory 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, and performance enhancement facilities.

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. The Exercise Science major is designed to meet the requirements of the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Upon completion of the degree, students are prepared to sit for American College of Sports Medicine (ACSM) certification as a Health Fitness Specialist and/or National Strength \& Conditioning Association (NSCA) certification as a Certified Strength and Conditioning Specialist or Certified Personal Trainer.

A student may declare ERES as a major at any time; however, to gain official acceptance into the program, the student must:

- Complete ENG 111, STAT 110, BIOL 211, BIOL 212, and HERS 280
with a grade of "C" or better.
- Submit a DARS report and meet with the Program Director to review the program of study and remaining major requirements.
The student must be accepted into the major prior to enrolling in HERS

363. Academic graduation requirements include:

- Attain a grade of "C" or better in all major courses.
- Attain a 2.5 or better overall GPA.


## CORE REQUIREMENTS (50 S.H.)

See page 131 for a list of Core Requirements.

## REQUIRED COURSES (25 S.H.)

Health, Exercise and Rehabilitative Sciences - HERS (22 S.H.)
204 Personal and Community Health (3)
288 Health Perspectives (3)
328 Behavioral Interventions (3)
B 350 Program Planning in Health Promotion (3)
363 Practicum in Exercise Science (2)
499 Internship in Exercise Science (8)
Psychology - PSY (3 S.H.)

* 210 Introduction to Psychological Science (3)


## EXERCISE AND REHABILITATIVE SCIENCES: MOVEMENT <br> SCIENCE (ERMS) <br> 93-94 S.H.

This major is designed to meet graduate school entrance requirements in a Movement Science field including physical therapy, occupational therapy, biomechanics, exercise physiology, kinesiology, motor learning, physician's assistant, or chiropractic medicine. Early in their tenure at WSU, students should meet with the advisor to plan their program of study. The course of study provides students with a thorough understanding of areas related to both natural and movement science. Students may not declare the Movement Science Option with less than a 3.0 GPA. Student must choose either the Research Focus or Academic Focus. The Academic Focus provides students supplemental computer and biology courses helpful for graduate school admission. The Research Focus requires students to develop an appropriate research project; perform data collection; and present the results as a poster presentation, journal article, or research paper.

Students must apply to the Research Focus. They may apply to the Movement Science Option: Research Focus after completing STAT 110, ENG 111, HERS 205, BIOL 211 and 212, and PSY 210. Application to the Research Focus includes a one- to two-page statement of professional goals and experiences, personal contact information, and a current copy of collegiate transcripts. Application materials are due to the Director of Movement Science, Gary Kastello by May 15th (Maxwell Hall Room 368). Notification of acceptance will be via email no later than May 30th. Acceptance is competitive with 10 to 15 students accepted each year. Students who do not apply or are not accepted in the Research Focus may be eligible for the Movement Science Option: Academic Focus.

Exercise and Rehabilitative Sciences: Movement Science Option students must meet all requirements for graduation specified in the Academic Policies section of this catalog (page 23). In order to successfully complete the Movement Science option, students must maintain a minimum 3.0 GPA in all University coursework, including Exercise and Rehabilitative Sciences core coursework and 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.

## CORE REQUIREMENTS (50 S.H.)

See page 131 for a list of Core Requirements.

## REQUIRED COURSES (43-44 S.H.)

## Health, Exercise and Rehabilitative Sciences - HERS (1 S.H.)

364 Practicum in Movement Science (1) (Sophomore standing)
Mathematics and Statistics - MATH (4 S.H.)

* 120 Precalculus (4)

Psychology - PSY (9 S.H.)

* 210 Introduction to Psychological Science (3)
* 250 Developmental Psychology (3)

420 Abnormal Psychology (3)

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## Physics－PHYS（8 S．H．）

＊ 201 General Physics I（4）
＊ 202 General Physics II（4）
Chemistry－CHEM（8 S．H．）
＊212 Principles of Chemistry I（4）
＊213 Principles of Chemistry II（4）
Sociology－SOC（3 S．H．）
＊ 150 Human Society（3）
Biology－BIOL（4 S．H．）
＊ 241 Basics of Life（4）

## RESEARCH FOCUS（6 S．H．）

Health，Exercise and Rehabilitative Sciences－HERS（6 S．H．）
390 Movement Science Research Design（3）
412 Movement Science Research Data Collection（3）

## ACADEMIC FOCUS（7 S．H．）

## Computer Science－CS（3 S．H．）

116 Web Technology（3）OR
130 Introduction to Basic Programming（3）
Biology－BIOL（4 S．H．）
＊ 307 Cell Biology Laboratory（1）
B 308 Cell Biology（3）

## SUGGESTED ELECTIVES

Biology－BIOL
209 Microbiology（3）
wh Cell Biology Laboratory（1）
厄 308 Cell Biology（3）
＊309 Developmental Biology（3）
件 310 Genetics（3）
340 Virology（3）
430 Molecular Biology（3）
431 Molecular Biology／Lab（4）
470 Histology（4）
Chemistry－CHEM
340 Organic Chemistry Survey（4）
438 Medicinal Chemistry（2）
Health，Exercise and Rehabilitative Sciences－HERS
344 Electrocardiography（3）
420 Clinical Exercise Testing and Prescription（4）

## Mathematics－MATH

160 Calculus I（4）
161 Calculus Companion（1）

## BS MAJOR－HEALTH PROMOTION

A student majoring in Health Promotion may choose either School Health or Community Health．Each program 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 Health Promotion：School Health，students have the skills and experience necessary to obtain a Minnesota teaching licensure．Students are required to meet the prescribed scores on the Minnesota Teacher Licensure Examination（MTLE）basic skills， content，and pedagogy tests．Students who complete this degree and pass the MTLE tests are qualified to apply for licensure and teach in the Minnesota public school systems grades 5－12．

Note：When this catalog went to print，all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching．Please contact your program advisor and refer to the Teacher Education Addendum（www．winona．edu／education／advising）for the latest information about program requirements whether you are（1）applying to a teacher education program，（2）currently enrolled in a teacher education program，or（3）expecting to graduate with a teacher education degree in 2010 or 2011.
－Health Promotion：Community Health gives students a thorough grounding in the theory and skills involved in the promotion of public and community 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 Master＇s degree programs in public health，health promotion，or health education．

The HERS Department encourages its health promotion majors to become members of its academic club，Health Organization for Promotion and Education（HOPE）．

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BS MAJOR - HEALTH PROMOTION - COMMUNITY HEALTH
(HPCH)
5 7 \text { S.H. (Minor Recommended)}
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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 23）．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 communication， management，management information systems，marketing，mass communication，operational management，philosophy，physics，political science，psychology，sociology，Spanish，training and development，wellness coaching，or women＇s and gender studies．Students must have a 2.50 major GPA to intern and graduate with this degree．

## REQUIRED COURSES 57 S．H．

Health，Exercise and Rehabilitative Sciences－HERS（46 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）
m 328 Behavioral Interventions（3）
§ 350 Programming Planning in Health Promotion（3）
395 Practicum in Health Promotion（3）
时 403 Epidemiology（3）
415 Grant Writing（3）
F－ 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）

## BS MAJOR－HEALTH PROMOTION：SCHOOL HEALTH （HPST） <br> 85－89 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 23）．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 Teacher Education Programs on page 216.

## REQUIRED COURSES（47 S．H．）

## Health，Exercise and Rehabilitative Sciences－HERS（39 S．H．）

＊ 204 Personal \＆Community Health（3）
＊ 205 Nutrition for Lifetime Wellness（3）
288 Health Perspectives（3）
311 Comprehensive School Health Program（3）

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    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)
*m328 Behavioral Interventions (3)
&250 Program Planning in Health Promotion (3)
昛403 Epidemiology (3)
    415 Grant Writing (3)
    4 2 5 ~ O r g a n i z a t i o n ~ a n d ~ A d m i n i s t r a t i o n ~ o f ~ S c h o o l ~ H e a l t h ~ ( 3 )
    4 3 3 \text { Senior Health Seminar (1)}
Biology - BIOL (8 S.H.)
* 211 Anatomy and Physiology I (4)
* 212 Anatomy and Physiology II (4)
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## ELECTVES（6 S．H．）

## Biology－BIOL

104 Environment，Society，and Conservation（3）
206 Normal Nutrition（3）
269 Human Reproduction（3）
Communication Studies－CMST
281 Intercultural Communication（3）
Counselor Education－CE
220 Emotions and Behavior（3）
432 Stress Management（3）
Health，Exercise and Rehabilitative Sciences－HERS
431 Health Issues Workshop（1－3）
490 Independent Study（1－4）
496 Internship in Community Health（10－12）
Nursing－NURS
260 Women＇s Health Issues（3）
Physical Education \＆Sport Science－PESS
214 Standard First Aid and CPR（2）
422 Standard First Aid／Personal Safety Instructor and Basic First Aid／ Cardiopulmonary Resuscitation Instructor Course（2）
Psychology－PSY
298 Health Psychology（3）
Sociology－SOC
212 The Family（3）
216 Social Problems（3）
Special Education－SPED
405 Student Management Systems（3）

## PROFESSIONAL EDUCATION SEQUENCE

## （32－36 S．H．）

Note：When this catalog went to print，all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching．Please contact your program advisor and refer to the Teacher Education Addendum
（www．winona．edu／education／advising）for the latest information about program requirements whether you are（1）applying to a teacher education program，（2）currently enrolled in a teacher education program，or（3） expecting to graduate with a teacher education degree in 2010 or 2011.

These courses require formal admission to the teacher education program． （See page 214，＂Admission to the WSU Teacher Education Program．＂）
$\dagger$ EFRT 305 Human Development and Learning：Secondary（4）
EFRT 308 Human Relations and Student Diversity（3）
$\dagger$ 解 EFRT 312 Instructional Planning and Assessment：Secondary（3）
$\ddagger$ EDUC 429 Secondary Reading and Teaching Strategies（4）
巴 EFRT 449 Middle Level Philosophy，Organization and Interdisciplinary Planning（3）
四 EFRT 459 The Professional Educator（3）
EDST 465 Student Teaching［Health（5－12） 12 credits］［Health／ PE（K－12） 16 credits］
$\dagger$ Courses must be taken together．
$\ddagger$ Courses must be taken together and the last semester prior to student teaching．

BS MINOR－NUTRITION（NUTR）
25－28 S．H．
The Nutrition minor is for individuals who are interested in nutrition in a community，school，or worksite setting．The focus of this minor is to prepare students to promote sound，science－based nutrition principles to physically and culturally diverse clients in individual or group settings．The minor does not prepare students to become Registered Dietitians；students who wish to
further their education for licensure should have many of the prerequisites covered through this minor

The minor is open to Athletic Training majors，Exercise and Rehabilitative Sciences majors（Cardiopulmonary Rehabilitation，Exercise Science and Movement Science Options），and School Health Teaching and Physical Education Teaching double majors．Typically，students will apply for admission to the Nutrition minor during their sophomore year．To be eligible，students must have taken BIOL 211 and 212 or BIOL 201 and 323， and HERS 205．Students must have and retain a 2.50 major GPA．All required courses must be completed with a grade of＂C＂or better（grade－ only）．Enrollment will be limited to 25 students per year．

Each applicant must submit a one－to two－page letter of application，a one－page résumé，and a transcript．More information on the application process and deadlines is available from the HERS Department office （Maxwell Hall，Room 351）．

## REQUIRED COURSES（25－28 S．H．）

## Biology－BIOL（8 S．H．）

＊ 211 Anatomy and Physiology I（4）AND
＊ 212 Anatomy and Physiology II（4）OR
201 Human Anatomy（4）AND
323 General Physiology（4）
Chemistry－CHEM（5－8 S．H．）
210 Chemistry for Health Sciences（5）OR
212 Principles of Chemistry I（4）AND
213 Principles of Chemistry II（4）
Health，Exercise，and Rehabilitative Sciences－HERS（12 S．H．）
＊ 205 Nutrition for Lifetime Wellness（3）
327 Multicultural Foods（3）
360 Nutrition for the Physically Active（3）
384 Advanced Nutrition（3）

## BS MINOR－WELLNESS COACHING（WELL） <br> 29 S．H．

The Wellness Coaching minor is for individuals who are interested in wellness coaching in a community，school，or worksite setting．This minor is designed to help students learn the skills and gain the experience they will need to practice as health and wellness coaches．Students will learn how to apply their health promoting skills to provide support for clients via face－ to－face contact，telephone，and email to help facilitate health promoting behavior and lifestyle change．

Acceptance into this minor is competitive；the program is open only to Community Health，Exercise Science and Therapeutic Recreation majors who have earned more than 28 university credits．Typically，students will apply to the Wellness Coaching minor during their sophomore year． Students must have and retain a 2.50 major GPA and must have completed HERS 280，HERS 288，or PESS 199 with a grade of＂C＂or better． Enrollment will be limited to 15 Community Health and／or Exercise Science majors and five Therapeutic Recreation majors per year．

Each applicant must submit a one－to two－page letter of application and a transcript．More information on the application process and deadlines is available from the HERS Department office（Maxwell Hall，Room 351）．

## REQUIRED COURSES（29 S．H．）

Health Exercise and Rehabilitative Sciences－HERS（17 S．H．）
204 Personal and Community Health（3）
205 Nutrition for Lifetime wellness（3）
280 Techniques of Fitness Programming（2）
288 Health Perspectives（3）
＊ 328 Behavioral Interventions（3）
446 Practicum in Wellness Coaching（3）
Recreation Tourism and Therapeutic Recreation－RTTR（9 S．H．）
246 Leisure Education（3）
342 Intervention Techniques in Therapeutic Recreation（3）
468 Programming in Therapeutic Recreation（3）
Communication Studies－CMST（3 S．H．）
296 Fundamentals of Interviewing（3）

## COURSE DESCRIPTIONS－HERS <br> exxerice nd perabulrativ Sclelces

## 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 and journal. Prerequisite: Department approval. 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 PESS majors) or PESS 251 (for coaching minors). Grade only. Offered each semester: Fall semester for athletic training major only; spring semester for all other majors or minors.

292 - Principles of Athletic Training (3 S.H.)
This course deals with the prevention, assessment, and treatment of musculoskeletal injuries. Emergency care, taping/wrapping techniques, and proper selection and fitting of bracing and splinting devices will also be covered. This course is designed for athletic training majors only and includes a clinical education requirement. Lectures, demonstrations, and laboratory experience. Prerequisites: HERS 191 and BIOL 211. Grade only. Offered fall semester only.
293 - Clinical Practice I (2 S.H.)
This course is the first in a series, which provides athletic training majors with integrated clinical education experiences with Approved Clinical Instructors in traditional athletic training settings and general medical settings. Students will also complete level-specific skill and professional behavior modules in addition to reviewing and completing assessments of clinical skills learned in HERS 292. Prerequisites: BIOL 211 and 212, HERS 191, 292, and 314. Grade only. Offered yearly.

305 - Health, Exercise and Medicine: An International Perspective (3 S.H.) This course is an interdisciplinary travel program designed to expose students to medicine, health, and exercise in a society outside of the United States. Students will engage in different learning opportunities including peer group presentations, lectures/discussions from specialists in their field, placement in clinical sites to interact with peers and mentors from the United Kingdom, and hands-on learning experiences in various settings.

## 314 - Anatomical Kinesiology (3 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.
327 - Multicultural Foods (3 S.H.)
This course is an introductory class with laboratory experience designed to address food preparation techniques, food safety and sanitation, socio-cultural-economic factors of food selection, and food management (purchasing and planning) systems as well as the food customs of societies, individuals, and families. Prerequisites: HERS 205 or BIOL 206 and admission to the nutrition minor. Grade only. Offered yearly.

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. Prerequisite: BIOL 212 with grade of "C" or better. 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. Prerequisites: HERS 340 for HERS majors; BIOL 212 for non-HERS majors. Grade only. Offered fall semester only.

345 - Emergency Response for the Professional Rescuer (3 S.H.) This course is designed to teach emergency care skills and the accompanying knowledge needed by emergency caregivers such as police officers, fire department members, park rangers, and other first-line caregivers. 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. Prerequisites: PER 214 or First Aid and CPR certification.

## Offered yearly.

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. Prerequisites: HERS 205 and 340. Grade only. Offered each semester.

## 361 - Practicum in Cardiopulmonary Rehabilitation (2 S.H.)

Students will be required to complete two semesters of practicum for one credit hour each semester for a total of two credit hours. Typically, the first practicum will be in the junior year and will be at WSU's Phase III Cardiopulmonary Laboratory. The second practicum will be completed with Phase II and III patients at Winona Health's Cardiopulmonary Laboratory. Students must have current American Heart CPR, AED, and First Aid certification. Prerequisites: (1) Level I: BIOL 211 and 212; HERS 205, 280, 340, and 380 (or concurrently). (2) Level II: Satisfactory completion of Level I practicum; HERS 344, 360, and 445 (or concurrently); NURS 361,366 , and 392 (or concurrently). Grade only. Offered each semester.
362 - Clinical Practice II (3 S.H.)
This course is the second in a series, which provides athletic training majors with integrated clinical education experiences with Approved Clinical Instructors in traditional athletic training settings. Students will also complete level-specific skill and professional behavior modules in addition to reviewing and completing assessments of clinical skills learned in HERS 392 and 345. Prerequisites: HERS 293, 392, and 345. Grade only. Offered fall semester.

363- Practicum in Exercise Science (2 S.H.)
Student will register for one credit hour in two separate semesters. The focus will be practical experience as a pre-professional in exercise science, with a variety of in-class and self-directed programming experiences. Prerequisites: HERS 280 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 a researchoriented university, hospital or clinic, or 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.

365 - Clinical Decision Making I (3 S.H.)
This course is the first in a series, which provides students an integrated clinical learning experience with an emphasis on evidence-based practice and best practices. Each clinical experience will be with Approved Clinical Instructors in traditional athletic training settings and in general medical settings. Students will also complete level-specific skill and professional behavior modules in addition to reviewing and completing assessments of clinical skills learned in HERS 391 and 393. Prerequisites: HERS 362, 391, 392, and 393. Grade only. Offered yearly.
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. Prerequisites:

## 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.

## 384 - Advanced Nutrition (3 S.H.)

This course introduces the student to nutritional genomics and functional foods. The course also explores issues of efficacy and health claims, identification of popular nutraceuticals, and application to epigenomics and special populations. A service learning component is included. Prerequisites: HERS 205 or BIOL 206, BIOL 211 and BIOL 212; CHEM 210 or CHEM 212, and admission to the nutrition minor. Grade only. Offered yearly.

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 fall semester only.

389 - Strength and Conditioning Principles and Programming (3 S.H.) This course is designed for students preparing for the 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, and 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 as 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: Acceptance into the Athletic Training Program; HERS 191 and HERS 292. 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 lumbar spine down. Lecture and lab. Prerequisites: Acceptance into the Athletic Training Program; HERS 191, 292, 314, and 380. 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: Acceptance into the Athletic Training Program; BIOL 211 and BIOL 212. Offered yearly.

## 412 - Movement Science Research Data Collection (3 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.)
Emphasizes methods, procedures and techniques of functional and diagnostic exercise stress testing. For normal, cardiopulmonary, and other special populations, consideration is given for contraindications, pharmacological intervention, protocol selection, equipment selection, data interpretation, follow-up procedures, and exercise prescription. Lecture and lab.
Prerequisites: 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. Prerequisites: HERS 340 and NURS 366. Grade only. Offered each semester.

489 - Clinical Decision Making II (3 S.H.)
This course is the second in a series, which provides students an integrated clinical learning experience with an emphasis on evidence-based practice and best practices. Each clinical experience will be with Approved Clinical Instructors in traditional athletic training settings and in general medical settings. Students will also complete level-specific skill and professional behavior modules in addition to completing second assessments of clinical skills learned in HERS 392, 393, 494, and 389. Prerequisites: HERS 365, 389, 391, 392, 393, and 494. Grade only. Offered yearly.

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: Acceptance into the Athletic Training Program; 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, recordkeeping, and other administrative areas. Prerequisites: Acceptance into the Athletic Training Program; HERS 392. Grade only. Offered yearly.

## 494 - Therapeutic Interventions (4 S.H.)

Anatomical review and discussion of mechanisms, specific injuries, their acute treatment and referral process for conditions related to the head, face, ear, eye, nose, throat thorax, abdomen, and skin. Will include in-depth instruction and review into the physiology and pathology of each condition for each body system. Intervention techniques for athletes suffering physical, emotional, or psychological illnesses will be discussed. Basic pharmacological principles will be discussed along with the actions and side-effects of commonly used drugs; action for abuse and testing will also be included. Prerequisites: Acceptance into the Athletic Training Program; HERS 392 and PSY 210. Grade only. Offered spring semester only.

## 495 - Athletic Training Capstone (3 S.H.)

This course is a capstone course for athletic training majors. Students will be provided integrated clinical learning experiences with an emphasis on evidence-based practice and best practices. Each clinical experience will be with Approved Clinical Instructors in traditional athletic training settings and in general medical settings. Students will also complete level-specific skill and professional behavior modules in addition to reviewing and completing second assessments of clinical skills learned in HERS 389, 391, 392, 393, 491, 492, and 494. Prerequisites: Final semester of athletic training major with successful completion of all academic, clinical, and program requirements. Grade only. Offered spring semester only.

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 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 indepth 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 BOC-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.

## 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 fall semester only.

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 HERS 288. Grade only. Offered spring semester only.

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, HERS 288, and HERS 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) be able to apply methodology of Middle/Secondary Health Education, and (3) know and understand the process of writing and implementing lesson plans. Prerequisites: HERS 204, HERS 288, and HERS 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 and access online 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 HERS 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.

## 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, HERS 312. Grade only. Offered each semester.

## 395 - Practicum in Health Promotion (1-3 S.H.)

This course gives students practical experience in 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 for 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 (3 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. Includes the creation and development of scope and sequence as applied 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 regarding curriculum development; and (3) become both an advocate and a resource person for health education, upholding 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 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. 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. Prerequisite: Junior or senior standing. May be repeated for credit. 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 for their file; and (3) develop their working professional portfolio. Prerequisites: HERS 204, 288, 311, 410; BIOL 211 and 212. Senior standing. Recommended prerequisites: HERS 403 and STAT 110. Grade only. Offered yearly.

446 - Practicum in Wellness Coaching (3 S.H.)
Supervised practical experience of wellness coaching. Under faculty supervision and support, students will work with two clients to develop an individualized wellness plan to meet their health needs, facilitate the behavior changes necessary, and support the maintenance of any changes that are made. Prerequisites: Completion of all other wellness coaching minor classes or instructor's permission and admission to the minor. Grade only. Offered each semester.

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 the Department chairperson. Grade only. Offered upon demand.

496- Internship in Community Health (10-12 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 completed and approved by the Health Promotion faculty, and instructor's permission. P/NC.

## HISTORY

Minné Hall, Room 212 (507-457-5400)
Chairperson's email: PHenderson@winona.edu
Department's email: banascak@winona.edu
Peter Henderson (Chairperson)

## FACULTY

Marianna Westbrook Byman, Professor; BA, Baylor University; MS, Winona State University; DA, University of North Dakota; 1988 -
Seymour Byman, Professor; BA, University of Illinois; MA, Roosevelt University; PhD, Northwestern University, 1970 -
John Campbell, Professor; BA, Wesleyan University; MA, PhD, University of Minnesota-Twin Cities; 1996 -
Peter V. N. Henderson, Professor, BA, JD, Vanderbilt University; MA, PhD, University of Nebraska-Lincoln; 1989 -
Kurt Hohenstein, Associate Professor, BA, JD, MA, University of Nebraska; PhD, University of Virginia, 2005 -
Colette A. Hyman, Professor; BA, Brown University; MA, PhD, University of Minnesota-Twin Cities; 1990 -
Matthew Lindaman, Associate Professor; BA, MA, University of Northern Iowa; PhD, University of Kansas, 2002 -
Matthew Lungerhausen, Assistant Professor; BA, University of California, Santa Cruz; MA, Binghamton University SUNY; PhD, University of Minnesota, 2004 -
Gregory G. Schmidt, Professor; BA, MA, PhD, University of Illinois-Urbana; 1984 -
Tomas Tolvaisas, Assistant Professor; BA, Wake Forest University; MA, Purdue University; PhD, Rutgers University, 2007 -

## DEGREES AND PROGRAMS

The History Department offers a BA major and a BA minor in history. In addition, the department administers the BS Paralegal Program, advises pre-law students, and directs the Law and Society Program. The department also coordinates the Social Science/History Program for secondary-level social studies teachers.

## 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 two-course Senior Seminar sequence, which requires them to produce an original research project (a Senior Thesis) 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 175.

## 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 history only. 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 BS Social Science/History (Teaching) on page 204. The education component of the program, called the Professional Education Sequence, is described in the Teacher Education Programs section of this catalog (page 214).

$$
m=\text { Oral Flag } \quad \text { 呵 = Math/Critical Analysis Flag } \quad \text { B }=\text { Writing Flag }
$$

## 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 144.

## 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 1964 to 1985.
- Paralegal students may apply for the Association of Paralegal Students Alumni Scholarship established by graduates of the Paralegal Program.


## 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.

## 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 BA 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 BA 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
Oral (m)
HIST 315 Women in U. S. History (3)
HIST 385 Trial Advocacy (1) (may be repeated up to a maximum of 3 credits)
HIST 398 Topics in History with Oral Communication Emphasis (3)
Math/Critical Analysis ( FJ )
HIST 372 Legal Research and Writing II (3)
HIST 495 Senior Research Seminar I (3)
Writing (\%)
HIST 365 American Legal History (3)

HIST 370 Legal Research and Writing I (3)
HIST 428 The History of Biography (3)
HIST 463 History of Mexico (3)
HIST 467 Foreign Travelers in "Exotic" Lands (3)
HIST 484 Depression, New Deal, and War (3)
HIST 485 Contemporary America (3)
HIST 488 American Constitutional History (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.

## BA MAJOR－HISTORY（HIST）

48 S．H（No Minor Required）

## REQUIRED COURSES（27 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）
件 495 Senior Research Seminar I（3）
巴 496 Senior Research Seminar II（3）

## ELECTVES（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．
－HIST 397 （Topics in History）and HIST 499
（Independent Readings in History）are counted in the sequence area the department deems appropriate．
－History majors cannot count Paralegal Sequence courses
（HIST 370，HIST 381，HIST 372，HIST 373，HIST 374，HIST
375，HIST 376，HIST 377，HIST 380 and HIST 383）and the Historical Museum Internship（HIST 390）as electives in the history major program．

## BA 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）
EIECTVES（9 S．H．）
Students must select 9 S．H．in coursework at the 300－and 400－levels with the approval of a History Department advisor．
－The department suggests students consider taking all the elective courses in one sequence area．
－History minors may not count Paralegal Sequence courses（HIST 370， HIST 371，HIST 372，HIST 373，HIST 374，HIST 375，HIST 376， HIST 377，HIST 380，and HIST 383）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 each 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，Korea，and Japan from the pre－modern era to the present．The course analyzes traditional institutions and values and responses to Western imperialism．Topics include Japan＇s Meiji Restoration and expansionism，Japanese colonial rule in Korea，traditional China＇s collapse and revolutionary movements，World War II，the Korean War，China＇s Communist reconstruction and post－communist economy，the continued partition of the Korean Peninsula，North Korean nuclear ambitions，and Japan＇s re－emergence as a world power．Grade only．

125 －Classical History（3 S．H．）
The history of Greece from the 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 as well as the origins and consequences of slavery and ethnic，cultural， and regional diversity and conflict．Also emphasized is the transformation of 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 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 Native American life and early European exploration of the Midwest，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，damning，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 and concluding with the Civil Rights movement and more recent developments in the United States. History majors and minors may count this class among their history electives. Grade only.

235 - History of the American Indian (3 S.H.)
This course traces the history of Native Americans from pre-Columbian times forward to the present day. It emphasizes both the broad, shared experience of natives, regardless of tribal identity, and the more particular experience of individual tribal groups, especially those of the Upper Midwest and Plains regions. Prerequisite: ENG 111 or instructor's permission. 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, ENG 111, and instructor's permission. Limited to 20 students. Grade only.

360 - Introduction to Historical Museums (3 S.H.)
This course provides students with an overview of the field of historical museums and public history. It will examine the history of museums, museum management, collections care, management of historical libraries and archives, fundraising and budgeting, and the development of exhibits and public programming. It will also survey opportunities available in public history. Required student projects will make use of the resources of the Winona County Historical Society. Prerequisites: 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. Prerequisites: HIST 360 and department's permission. 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. Can be repeated with different topics. 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.)
This course, offered in the fall semester, is the first of a two-course sequence in which students develop their Senior Thesis topic that will be intensively researched and written in HIST 496 the following spring semester. While the work in this class builds on all the coursework done by students as History or Law and Society majors at Winona State University, it also develops students' understanding of primary/secondary sources and historiographic thinking as taught in HIST 298. Prerequisites: Major status in history or social science/history or law and society, senior standing, HIST 298, and instructor's permission. Students must be carrying no Incompletes at time of registration. Grade only. Note: Students who want to take HIST 495 in the fall semester must get a blue card from the instructor and register for HIST 495 by the last day of classes of the preceding spring semester.

496 Senior Research Seminar II (3 S.H.)
The central and overriding focus of this course is the research and writing of the student's Senior Thesis, the topic that students developed in HIST 495 Senior Seminar I. Students, in constructing and writing their thesis, will do research into primary, original source materials. Historiographic analysis and writing is also an important component of the thesis. 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. Prerequisite: Instructor's written permission. Offered each semester.

## Developing Societies and Different Cultures Sequence <br> 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 17 th- 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 and their differing ideologies. Special emphasis on revolutionary movements in Mexico, Bolivia, Cuba, and Central America. 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 liberalconservative 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 19th and 20th 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 preHispanic times to the present. Emphasis will be placed on the development of an indigenous culture's 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 led 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 Portuguese exploration and colonization, the development of slavery and its abolition, and Brazil's experience with industrialization and world power status. 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, HIST 151, or instructor's permission. Grade only.

## 345 - History of American Sports (3 S.H.)

An 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 contexts. Prerequisites: HIST 150 and HIST 151 or instructor's permission. Grade only.
385 - Trial Advocacy 1 (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.)
An 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 creation, and ratification of the Constitution of 1787.
Prerequisite: 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 yeomen society, the diverse lives of southern women, the economics of slavery, slave life and culture, the politics of slavery and the coming of the Civil War, and the rise and fall of the Confederacy. 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 of 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 contact 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 1890 s, 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 postwar 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 neoliberalism. 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, 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, HIST 151, or instructor's permission. Grade only.

## 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.)

An 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 in various societies. Prerequisite: 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 history of the Soviet Union and Russia during the 20th century. Topics include the 1905 and 1917 Revolutions, the development of the Soviet command economy, Stalin's political purges and cultural revolution, World War II, and the Cold War. The course will also discuss the collapse 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

## 211- Introduction to Paralegalism and Ethics (2 S.H.)

This course will introduce paralegal majors to the practice of paralegalism and the legal ethics related to that practice. The course will examine the paralegal profession, the best practices of paralegalism, office machinery, techniques and advanced practice software, office management, the role of the paralegal in legal practice, and the nature and responsibilities of legal ethics for the paralegal. Students not enrolled in the Paralegal Program need the program director's permission to enroll in this course and must meet the prerequisites of the program. Grade Only. (Suggested enrollment during spring semester of sophomore year.)

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, and wills and by 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, pretrial 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. Prerequisite: 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 (2-3 S.H.)
Students will learn about more specialized substantive law topics such as immigration law, bankruptcy law, intellectual property law, and others that may not demand a full semester offering. The course will supplement HIST 371 and HIST 375 (Substantive Law and Ethics I and II), which are required offerings currently listed in the Paralegal major as electives, allowing students to experience a broader base of substantive knowledge. These courses will be offered on an as-needed basis permitting maximum flexibility in scheduling for special paralegal topics. Grade Only. Offered each semester as needed.
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 three 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 and John Campbell

## FACUITY

John Campbell，Professor；BA，Wesleyan University；MA，PhD，University of Minnesota； 1996 －
Kurt Hohenstein，Associate Professor，BA，JD，MA，University of Nebraska；PhD，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，multidisciplinary background，graduates of the Law and Society program 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 after college，successfully majoring in law and society provides 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 continually 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，and nonprofit to name a few－who are eager to hire successful law and society majors for their understanding of how the law influences the workaday world of employers．

## REQUIREMENTS

For a checklist of the University＇s graduation requirements，see page 23．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 HIST 298 （Historical Methods），HIST 495，and HIST 496 （Senior Seminar I and II）．
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．

## BA MA JOR－LAW AND SOClETY（IWSO）

76 S．H．

## English（3 S．H．）

ENG 225 Topics in Literature（3）
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）（Usually offered fall semester．）
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）
B HIST 365 American Legal History（3）
\＆HIST 488 Constitutional History（3）
Mass Communication（6 S．H．）
MCOM100 Mass Media \＆Society（3）
m 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 Introduction to Psychological Science（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）
to 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
时 300 Mass Media Law（3）
Political Science－POLS
220 Civil Rights：Civil Liberties（3）
＊＊2260 Development of Political Thought（3）
＊＊ 358 Contemporary Political Thought（3）
＊ 421 The First Amendment（3）
＊＊ 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）
425 Social Change and Social Movements（3）
431 Social Class and Power（3）
＊＊These courses have specific prerequisites．Students must either satisfy these prerequisites or get permission from the instructor．
M=Oral Flag 胢= Math/Critical Analysis Flag 隹= Writing Flag

## LIBRARY SCIENCE

Darrell W. Krueger Library, Room 110 (507-457-5140)
General Inquiries: Refdesk@winona.edu
Vernon Leighton (Chairperson)
FACUITY
Russell Dennison, Instruction Librarian, Professor; BA, Central College; MALS, University of Wisconsin-Madison; 1980 -
MarkJ. Eriksen, Coordinator of Access Services, Assistant Professor; BA, The Ohio State University; MLS, Kent State University; MS, South Dakota State University; 1998 -
Joe Jackson, Systems and Cataloging Librarian, Associate Professor; BA, University of Minnesota; BA, University of Lyon (France); MS, Simmons College; MA, Arizona State University; 1997 -
Kendall Larson, Information Gallery Librarian and Coordinator of Public Service, Associate Professor; BA, Gustavus Adolphus College; MA, University of Wisconsin-Madison; 2001 -
H. Vernon Leighton, Coordinator of Liaison Services and Government Documents Librarian, Professor; BA, Bucknell University; MS, University of Illinois; MS, University of Minnesota; 1990 -
Joe Mount, Collection Development Librarian, Assistant Professor; BA, Wake Forest University; MA, Ohio University; MLS, Indiana UniversityBloomington; 1994 -
Allison Quam, Reference and Liaison Librarian, Assistant Professor; BA, University of Wisconsin-La Crosse; MFA, MLS, University of Maryland; 2006 -
Kathryn Sullivan, Coordinator of Non-Print Resources and Distance Education, Professor; BA, MA, Northern Illinois University; DSc, Nova University; 1978 -

## PURPOSE

The Library Department does not have a major/minor 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.

## COURSE DESCRIPTIONS - LIBS

100 - 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, Web search engines, 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.

## MARKETING

Somsen Hall, Room 109 (507-457-5001)
http://winona.edu/marketing
Russell Smith (Chairperson)

## FACULTY

Marianne K. Collins, Assistant Professor; BS, Colorado State University; MPA, Harvard University; 2008 -
Ronald L. Decker, Associate Professor; BS, BA, The University of Denver; MS, Central Missouri State University; PhD, University of Iowa; 2008 -
James William Murphy, Dean, College of Business; BSEd, MSEd, Arkansas State University; EdD, University of Memphis; 1989 -
C. Robert Newberry, Professor; BS, MBA, University of Wisconsin-La Crosse; PhD, University of Wisconsin-Milwaukee; 1992 -

Russell K. Smith, Jr., Professor; BA, Drake University; PhD, University of Tennessee-Knoxville; 1993 -
Leon Tyler, Assistant Professor; BS, Northwestern University; MBA, University of St. Thomas; 2008 -
Mark Young, Professor; BS, MBA, University of Wisconsin-La Crosse; DBA, 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.

## COLLEGE OF BUSINESS ADMISSIONS POLICY

Admission to the College of Business (COB) for College of Business BS majors and minors is required before students may enroll in 300- and 400-level classes. $\dagger$ Students must meet the following specific requirements:

1. 30 or more earned credits at the time of application.
2. Cumulative GPA of 2.5.
3. Completion of the following courses with a minimum grade of "C":

## ACCT 211 CMST 191 ECON 201 <br> ECON 222 or STAT 210 $\ddagger$ ENG 111 MATH 110 or above $\neq$

$\dagger$ Non-College of Business majors and minors must have junior status and instructor's permission to take COB 300- and 400-level courses.
$\ddagger \mathrm{COB}$ minors with Non-COB major: Completion of math and statistics courses required by their major or, if none are required, these students should
take any college-level math and statistics courses.

## ACADEMIC INTEGRITY POLICY

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 27 of this catalog.

## PASS/NO CREDIT (P/NC) COURSES

Except for internships and practica, students must take all courses in the marketing major and minor on a grade-only basis. The P/NC option is available to non-majors unless otherwise noted.

## 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 Marketing Department offers the following flag courses in the University Studies Program:

## FLAG

## Oral (m)

 MKTG 344 Buyer Behavior (3)Math/Critical Analysis (fu) MKTG 334 Marketing Research (3)

## BS MAJOR - MARKETING (MKTG)

66 S.H. (No Minor Required)

## GRADUATION REQUIREMENTS - MARKETING MAJOR

1. Achieve a grade of "C" or better in all marketing major required and elective courses. A marketing course taken with a grade of "D," "F" or "W" can be repeated only one time.
2. Complete an experiential marketing practicum (MKTG 399 or MKTG 429).
3. Complete a minimum of $50 \%$ of the credits required for the marketing major at WSU.
4. Meet all other WSU graduation requirements (page 23).

## REQUIRED COURSES (54 S.H.)

Accounting (6 S.H.)
ACCT 211 Financial Accounting Principles (3)
ACCT 212 Managerial Accounting (3)
Business Administration (15 S.H.)
BUSA 291 Legal Environment of Business (3)
\& MGMT 325 Organizational Dynamics (3)
MGMT 334 Operations Management (3)
MGMT 495 Strategic Management (3)
MIS 362 Management Information Systems (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.)
ECON 222 Statistics for Business and Economics (3) OR
STAT 210 Statistics (3)
Marketing Core (18 S.H.)
MKTG 300 Principles of Marketing (3)
Prerequisite for College of Business majors and minors:
Admission to the College of Business. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.
MKTG 332 Market Analysis (3)
Prerequisites for College of Business majors and minors:
Admission to the College of Business and MKTG 300.
Prerequisites for non-College of Business majors and minors: Junior standing, any college-level statistics course, and instructor's permission.
解 MKTG 334 Marketing Research (3)
Prerequisites for College of Business majors and minors:
Admission to the College of Business and MKTG 300.
Prerequisites for non-College of Business majors and minors: Junior standing, any college-level statistics course, and instructor's permission.
m MKTG 344 Buyer Behavior (3)
Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.
B MKTG 346 Marketing Management (3)
Prerequisites for College of Business majors and minors: Admission to the College of Business, MKTG 300, and MKTG 332.

Writing (ß)
MKTG 346 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.

## Marketing Major Practicum

One of the following: MKTG 399 (3) or MKTG 429 (3) MKTG 399 Internship Experience (3) fulfills the Marketing major practicum requirement. Prerequisites: Admission to the College of Business, department approval, and two of the following courses: MKTG 332, MKTG 334, MKTG 344, or MKTG 346.
MKTG 429 Small Business Consulting (3) fulfills the Marketing major practicum requirement. Prerequisites: Admission to the College of Business, department approval, and two of the following courses: MKTG 332, MKTG 334, MKTG 344, or MKTG 346.

ELECTIVES $\dagger$ - MKTG (12 S.H.)
325 Professional Selling (3)
327 Marketing and Entrepreneurship (3)
329 Sports Marketing (3)
331 International Marketing (3)
333 Topics in Marketing (3)
335 Tourism Marketing (3)
336 Services Marketing (3)
338 Branding (3)
339 Internet Marketing (3)
341 E-Commerce (3)
343 Qualitative Research and Planning (3)
345 Sales Management (3)
349 Independent Study (3)
363 Integrated Marketing Communications (3)
365 Advanced Professional Selling (3)
429 Small Business Consulting (3)
$\dagger$ One course from outside the Marketing Department may be used as an elective. See the department chairperson for a current list of approved alternative courses.

## BS MINOR - MARKETING (MKTG)

30 S.H.

## GRADUATION REQUIREMENTS - MARKETING MINOR

1. Achieve a grade of " C " or better in all marketing minor required and elective courses. A marketing course taken with a grade of "D," "F" or "W" can be repeated only one time.
2. Complete a minimum of $50 \%$ of the credits required for the marketing minor at WSU.
3. Meet all other WSU graduation requirements (page 23).

## REQUIRED COURSES (18 S.H.)

Accounting (3 S.H.)
ACCT 211 Financial Accounting Principles (3)
Economics (3 S.H.)
ECON 201 Principles of Microeconomics (3)

## Statistics (3 S.H.)

Completion of statistics course as required in major.
If none is required, choose any college-level statistics course.
Marketing Core - MKTG (9 S.H.)
MKTG 300 Principles of Marketing (3)
Prerequisite for College of Business majors and minors: Admission to the College of Business. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.

MKTG 332 Market Analysis (3)
Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing, any college-level statistics course, and instructor's permission.
MKTG 344
Buyer Behavior (3)
Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.

## ELECTIVESt (12 S.H.)

325 Professional Selling (3)
327 Marketing and Entrepreneurship (3)
329 Sports Marketing (3)
331 International Marketing (3)
333 Topics in Marketing (3)
335 Tourism Marketing (3)
336 Services Marketing (3)
338 Branding (3)
339 Internet Marketing (3)
341 E-Commerce (3)
343 Qualitative Research and Planning (3)
345 Sales Management (3)
349 Independent Study (3)
363 Integrated Marketing Communications (3)
365 Advanced Professional Selling (3)
429 Small Business Consulting (3)
$\dagger$ One course from outside the Marketing Department may be used as an elective. See the department chairperson for a current list of approved alternative courses.

## 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.

## 105 - Marketing in a Global Society (3 S.H.)

An introduction to key marketing concepts within the context of current and emerging global issues. This course is designed to expose students to the impact of cultural, economic, and political environments on the global marketplace and to explore the ethical and social responsibilities of marketing managers in this dynamic era of globalization. Topics include the importance of cross-cultural understanding, global linkages, emerging markets, and fair trade practices.

## 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. Prerequisite for College of Business majors and minors: Admission to the College of Business. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.

## 325 - Professional Selling (3 S.H.)

Learning professional selling concepts and the communications skills to apply them. Topics include interpersonal communications in business, relationship building, prospecting and qualifying, determining customer wants and needs, sales presentation, and negotiation and post-sale communications. Employment opportunities in sales are examined. Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.

327 - Marketing and Entrepreneurship (3 S.H.)
An examination of the procedures and managerial practices of small business. Specific emphasis is given to entrepreneurial subjects such as the legal organization of the firm, financing, franchising, site selection, employee management, and buying and customer support functions. Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.

329 - Sports 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. Student fee is required. Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing and 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. Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing and 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. Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing, any college-level statistics course, and instructor's permission.

## 333 - Topics in Marketing (3 S.H.)

Various courses offered in conjunction with curriculum needs and the availability of faculty with relevant expertise. Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission. This course may be repeated.

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 applications for data analysis and questionnaire development. 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. Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing, any college-level statistics course, and instructor's permission.

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. Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing and 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. Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.

## 338 - Branding (3 S.H.)

This course examines the relevant concepts involved in the management of brands both in the context of consumers and in organizations. A distinguishing characteristic of modern marketing has been its focus on the creation of differentiated brands. Topics will include identifying and developing bases of brand differentiation; researching and establishing unique brand associations using product attributes, brand marks, names,
packages, distribution strategies, and promotional strategies; understanding brand equity and its value to an organization; designing marketing programs to build brand equity; turning around brands in crisis; managing brands over time; and understanding the issues involved with international branding. Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing and 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. Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing and 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. Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.

## 343 - Qualitative Research and Planning (3 S.H.)

This project-oriented course introduces students to marketing applications of qualitative research techniques from behavioral sciences. The course leads students through the process of identifying high potential issues, formulating qualitative research objectives, compiling qualitative research designs, collecting qualitative data, analyzing qualitative data, and formulating and presenting qualitative findings and applying them to the development of marketing communications. Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing and 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. Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.

345 - Sales Management (3 S.H.)
An in-depth coverage of determining the types of sales positions, the recruiting and hiring process, training, determining sales territories, methods of compensation and motivation, and control over the sales force. Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisites for non-College of Business majors and minors: Junior standing and instructor's permission.

346 - Marketing Management (3 S.H.)
Marketing management is a comprehensive application of the development and implementation of a marketing plan including the plan's placement in a business or organizational plan. This course will involve detailed analysis of product development and management activities such as research and development, brand management, 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. Prerequisites for College of Business majors and minors: Admission to the College of Business, MKTG 300, and MKTG 332.

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. Prerequisites for College of Business majors and minors: Admission to the College of Business, MKTG 300, and department approval. Prerequisites for non-College of Business majors and minors: Junior standing and departmental approval. Grade only.

363 - Integrated Marketing Communications (3 S.H.)
This course provides students with an in-depth understanding of each tool in the promotional mix (advertising, direct marketing, interactive/internet marketing, sales promotion, publicity/public relations, and personal selling) from the perspective of the marketing manager. Students learn how to apply each tool in implementing the organization's marketing strategies and accomplishing its marketing objectives. Prerequisites for College of Business majors and minors: Admission to the College of Business and MKTG 300. Prerequisite for non-College of Business majors and minors: Junior standing and instructor's permission.

365 - Advanced Professional Selling (3 S.H.)
An in-depth examination of advanced selling and communication techniques designed for students intending to pursue professional selling, customer service, or related career paths. Specific topics include relationship management, buyer behavior, communication skills development, and the intricacies of applying the sales process to numerous sales situations in a dynamic, competitive environment. The course will include substantial experiential learning involving contact with numerous sales professionals. Prerequisites: Admission to the College of Business, MKTG 300, and a grade of "C" or better in MKTG 325, or instructor's permission.

## 398 - Internship (1-9 S.H.)

Credits will not be counted in marketing major, but as general elective credits. Prerequisites for College of Business majors and minors: Admission to the College of Business, department approval, and two of the following courses: MKTG 332, MKTG 334, MKTG 344, or MKTG 346. P/NC only.

## 399 - Internship Experience (3 S.H.)

See department chairperson for a list of requirements. Credits fulfill marketing major practicum requirement. Prerequisites for College of Business majors and minors: Admission to the College of Business, department approval, and two of the following courses: MKTG 332, MKTG 334, MKTG 344, or MKTG 346. Grade only.

## 429 - Small Business Consulting (3 S.H.)

This course is 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. Prerequisites for College of Business majors and minors: Admission to the College of Business, department approval, and two of the following courses: MKTG 332, MKTG 334, MKTG 344, or MKTG 346. Grade only.

# MASS COMMUNICATION 

Phelps Hall, Room 126 (507) 457-5474
Email: mscm@winona.edu
Cindy Killion (Chairperson)

## FACULTY

Ajit Daniel, Professor; BA, St. Stephen's College, Delhi University, India; BS, Southern Illinois University-Edwardsville; MS, Southern Illinois University Carbondale; PhD , The Union Institute; 1982 -
Daniel Eastman, Professor; BA, Western Washington University; MFA, Wayne State University; MFA, Bard College; 1989 -
Ronald Elcombe, Professor; BS, University of Minnesota-Twin Cities; MM, Mankato State University; PhD, The Union Institute; 1991 -
Tom Grier, Associate Professor; BA, MA, Winona State University; EdD, University of Minnesota; 1989 -
Drake Hokanson, Professor; BA, MA, University of Iowa; 1997 -
Cindy Killion, Professor; BJ, University of Missouri-Columbia; MA, University of Oklahoma; PhD, University of Oregon; 1992 -
Robin O'Callaghan, Assistant Professor; BA, MS, Winona State University; 2005 -
Tanya A. Rolfson, Assistant Professor; BA, Winona State University; MA, Bethel University; 2008 -
John Vivian, Professor; AB, Gonzaga University; MSJ, Northwestern University; 1981 -
John N. Weis, Associate Professor; BS, Northern Illinois University; MA, Norwich University; 1996 -

## MISSION

The Mass Communication Department's mission is to provide students with the concepts and skills necessary to prepare them to critically evaluate and develop media messages, to be socially responsible citizens of today's world, and to advance their chosen careers.

## PURPOSE

Mass media are needed in a free society to inform, survey, protect, and enlighten. The mass communication faculty members instill students with a strong sense of responsibility to serve the community and society. Faculty members also provide 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, cocurricular, and extracurricular programs including:

- KQAL, a full-service 1,800-watt departmental radio station serving an average weekly listening audience of 15,000 .
- Winona360.org, an innovative multimedia website that is both a learning laboratory for students and a real-world, general interest news site.
- Bravura, a laboratory publication with a circulation of 17,000 .
- A fully functioning wet darkroom in which intermediate and advanced students produce black-and-white photographs.
- Television broadcast facilities in which students produce programs for a variety of audiences; programs are broadcast on the local cable channel.
- Multimedia labs for print, web, broadcasting, and other projects.
- A "creative corner" in which students can brainstorm project ideas.
- Campus chapters of the American Advertising Federation (AdFed), International Association of Business Communicators, National Broadcasting Society (and its affiliate, Alpha Epsilon Rho), Public Relations Student Society of America (PRSSA), Society for Collegiate Journalists, and the National Press Photographers Association.
- Many other opportunities to work in student and professional media activities both on and off campus.

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 on a two- and four-year plan. Students may contact the Mass Communication Department for a copy of the prepared plans.

## PASS/NO CREDIT (P/NC) COURSES

All courses in the mass communication major and minor, including internships, are offered on a grade-only basis.

## ADDITIONAL GRADUATION REQUIREMENTS

For a checklist of the University's graduation requirements, see page 23. 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.
- Mass communication majors must have a cumulative WSU 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 (fe)
MCOM 300 Mass Media Law (3)
Writing (R)
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.

## BA 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 - MCOM (15 S.H.)
    100 Mass Media and Society (3)
    210 Visual Communication (3)
B}232 News Writing (3)
的 300 Mass Media Law (3)
*4.405 Mass Media Issues and Ethics (3)
    499 Electronic Assessment Portfolio (0)
ADVERTISINGOPTION - 42 S.H. (MCAD)
CORE REQUIRED COURSES (15 S.H.)
```


## CORE ELECTIVES－MCOM（3 S．H．）

## Choose one：

```
々 305 Mass Media History（3）
B 400 Mass Communication Theory（3）
B． 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．）

Mass Communication－MCOM
202 Creativity and Innovation（3）
205 Principles of Internet Communication（3）
215 Photocommunication（3）
220 Broadcast Writing（3）
226 Video／Multimedia Planning and Design（3）
240 Public Relations（3）
275 Publication Design（3）
319 Studio Photography（3）
326 Interactive Media Production（3）
356 Media and Society International（3）
408 Research in Mass Media（3）
Marketing－MKTG
300 Principles of Marketing（3）
344 Buyer Behavior（3）
BROADCASTING OPTION－ 42 S．H．（MCB）
CORE REQUIRED COURSES（15 S．H．）

## CORE ELECTIVES－MCOM（3 S．H．）

Choose one：
巴 305 Mass Media History（3）
₹ 400 Mass Communication Theory（3）
B 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）
202 Creativity and Innovation（3）

205 Principles of Internet Communication（3）
321 Topics in Television Production（3）
325 Broadcast Journalism（3）
326 Interactive Media Production（3）
356 Media and Society International（3）
399 Internship（3）
JOURNALISM OPTION－ 42 S．H．（MCJ）
CORE REQUIRED COURSES（15 S．H．）

## CORE ELECTIVES－MCOM（3 S．H．）

Choose one：
巴 305 Mass Media History（3）
ह 400 Mass Communication Theory（3）
B． 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．）

202 Creativity and Innovation（3）
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）
319 Studio Photography（3）
326 Interactive Media Production（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 EIECTIVES（3 S．H．）

## Choose one：

\＆ 305 Mass Media History（3）
P 400 Mass Communication Theory（3）
P 450 International Broadcasting（3）
PHOTOJOURNALLSM 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 Visual Journalism（3）
PHOTOJOURNALISM ELECTIVES－MCOM（3 S．H．）
202 Creativity and Innovation（3）
205 Principles of Internet Communication（3）
226 Video／Multimedia Planning and Design（3）
240 Public Relations（3）
260 Advertising（3）
319 Studio Photography（3）
326 Interactive Media Production（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）

[^4]PUBLIC RELATIONS OPTION - 42 S.H. (MCPR)

## CORE REQUIRED COURSES (15S.H.)

## CORE ELECTIVES - MCOM (3 S.H.)

Choose one:
B 305 Mass Media History (3)
B 400 Mass Communication Theory (3)
拖 450 International Broadcasting (3)

```
PUBLLC RELATIONS REQUIRED COURSES - MCOM
(21 S.H.)
175 Mass Communication Computer Applications (3)
240 Public Relations (3)
275 Publication Design (3)
332 News Gathering (3)
340 Public Relations Cases (3)
345 Public Relations Writing (3)
440 Public Relations Campaigns (3)
```


## PUBLIC RELATIONS EIECTVES - MCOM (3S.H.)

120 Electronic Media (3)
202 Creativity and Innovation (3)
205 Principles of Internet Communication (3)
215 Photocommunication (3)
220 Broadcast Writing (3)
226 Video/Multimedia Planning and Design (3)
260 Advertising (3)
319 Studio Photography (3)
326 Interactive Media Production (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)

## BA MINOR - MASS COMMUNICATION (MC)

21 S.H.

## REQURED COURSES - MCOM (9 S.H.) <br> 100 Mass Media and Society (3) <br> 210 Visual Communication (3) <br> R 232 News Writing (3)

## EIECTVES (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 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, cable, 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.
202 - Creativity and Innovation (3 S.H.)
Creativity can be achieved by anyone with effort and hard work. This course examines the theoretical foundations of creativity and innovation. Students will be given the tools to help them identify and solve mass communication problems, formulate objectives, and create a plan to reach their objectives.
This foundation course will nurture students' creativity in their work and lives. Prerequisites: MCOM 100 and minimum of 24 semester credits.

205 - Principles of Internet Communication (3 S.H.)
An overview of the specialized nature of communicating to mass audiences via the Internet. Students learn website development and multimedia authoring tools to communicate clearly and maintain interest while providing effective communication.

210 - Visual Communication (3 S.H.)
Basic visual communication theory as it applies to mass communication with practical, hands-on application. Students explore visual literacy, aesthetics, design principles, creativity, critical evaluation of images in a variety of media, and the ethics of visual communication.

215 - Photocommunication (3 S.H.)
An intermediate-level course 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, continuity copy, and news. Prerequisite: ENG 111.

225 - Audio Production (3 S.H.)
Design, technique, production, and presentation of audio programs. Prerequisite: MCOM 220.

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226 - Video/Multimedia Planning and Design (3 S.H.)
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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. Prerequisite: MCOM 232.

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, including brochures/flyers; print, radio, and TV ads; newsletters; websites; and portfolios.

## 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. Includes a variety of practical application projects.

275 - Publication Design (3 S.H.)
Using desktop publishing software 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.

311 - Topics in Mass Communication (3 S.H.)
The content and subject matter varies, depending on current events and issues of interest to Mass Communication students and faculty. All topics will relate directly to issues of special interest to the field at that time. Prerequisites: MCOM 100 and junior standing.

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.)

Advanced photographic lighting and composition with an 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, MCOM 226, MCOM 320, and instructor's permission.

## 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, and layout. Prerequisite: MCOM 332.

## 340 - Public Relations Cases (3 S.H.)

Examination of public relations as applied in business, industry, government, social services, and other organizations-for-profit and not-for-profit. 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; internal and external promotional materials; publications; newsletters; print, radio, and TV ads; brochures; websites; and other promotional activities. Prerequisite: MCOM 332.

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. Students can repeat this course for up to six credit hours. The first three credit hours will be applied toward fulfilling requirements for the major and/or minor; the remaining three credit hours will be applied toward general electives.

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, television, 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. Prerequisites: 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, content, audience, and effects; problems in gathering theoretical and applied research data 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 Visual Journalism (3 S.H.)
A capstone experience in visual journalism in which students research and produce an in-depth visual journalism project. Prerequisites: Senior standing and MCOM 310.

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.)

Students apply public relation theory and processes in a practical, hands-on assignment that requires analysis, the creation of planning strategies, and the facilitation of public relations activities based on specific objectives. Includes practical campaigns for "real world" clients in conjunction with MCOM 460. Prerequisite: MCOM 345. It is recommended that MCOM 340 be taken in conjunction with MCOM 440.

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. Prerequisite: MCOM 100.

460 - Advertising Campaigns (3 S.H.)
Consideration and implementation of advertising principles in "real world" simulation using actual clients. Development of situation analysis, marketing strategy and multimedia advertising campaigns to achieve specific objectives in conjunction with MCOM 440. Prerequisites: MCOM 360, MCOM 361, 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
Brant Deppa (Chairperson)

## FACULTY

Susan Beseler, Assistant Professor; BS, Winona State University; ME, University of Wisconsin-La Crosse; 2005 -
Gary Bunce, Professor; BS, North Dakota State University; MA, PhD, University of New Mexico; 1971 -
Joyati Debnath, Professor; BSc, MS., Jadavpur University; MS, PhD, Iowa State University of Science and Technology; 1989 -
Brant Deppa, Professor; BS, MS, University of Minnesota, Duluth; PhD, University of Minnesota-Twin Cities; 1992 -
Jefrey Draskoci-Johnson, Associate Professor; BA, Ohio Wesleyan University; MS, PhD, Ohio State University-Columbus; 1996-
Eric Errthum, Assistant Professor; BS, University of Iowa; PhD, University of Maryland; 2007 -
Tisha Hooks, Assistant Professor; BS, University of Nebraska-Kearney; MS, PhD, University of Nebraska-Lincoln; 2006 -
April Kerby, Assistant Professor; BS, BA, Alma College; MS, PhD, University of Nebraska-Lincoln, 2009 -
Steven Leonhardi, Professor; BA, Concordia College, Moorhead (MN); MA, PhD, University of Wisconsin-Madison; 1996 -
Cbristopher Malone, Associate Professor; BS, Winona State University; MS, PhD, Kansas State University; 2002 -
Felino G. Pascual, Professor; BS, Ateneo de Manila, Philippines; MSc, PhD, University of Minnesota-Twin Cities; 1992 -
Barry Peratt, Associate Professor; BS, Moravian College; MS, PhD, University of Delaware; 1996 -
Cheryl Quinn Nelson, Associate Professor; BA, Luther College; MS, Winona State University;1986 -
Daniel Rand, Associate Professor; BS, Purdue University; MS, PhD, University of Minnesota-Twin Cities; 1998 -
Kenneth A. Suman , Professor; BS, MS, Clemson University; PhD, Pennsylvania State University; 1990 -
Aaron Wangberg, Assistant Professor; BA, Luther College; PhD, Oregon State University; 2007 -
Nicole Williams, Associate Professor; BS, University of Maine at Farmington; MS, PhD, Illinois State University; 2004 -

$$
\text { m Oral Flag } \quad \text { 时 = Math/Critical Analysis Flag } \quad \text { B }=\text { Writing Flag }
$$

## 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 (BA 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 (BT 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 (BS Major - Statistics) provides students with both a solid background in mathematics as well as experiences with statistical theories, techniques, and software. The statistics faculty members 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 BA 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 BT 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 BS 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 155 for suggested electives.
- Quality Assessment and Improvement. 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 155 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 BS Major - Mathematics: Statistics Option are well-prepared for either an entry-level position or admission into a graduate school in biostatistics. See page 155 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 include completing a thesis, which is reviewed by two departmental faculty readers, attending departmental colloquia and seminars, and presenting a summary of the thesis in a departmental seminar. For more details, contact the department chairperson.

## CREDIT BY EXAMINATION 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.

## PASSNO CREDIT (PNC) 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 grade of "C" 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：

```
MATHEMATICS FLAG COURSES
Oral (m)
    MATH 410 History of Mathematics (3)
    MATH 430 Operations Research: Linear Programming (3)
Math/Critical Analysis(F)
    MATH 220 Combinatorics and Graph Theory (3)
    MATH 260 Multivariable Calculus (4)
    MATH }270\mathrm{ Differential Equation and Linear Algebra (4)
    MATH 310 Number Theory (3)
Writing (B)
    MATH 330 Advanced Calculus I (4)
    MATH 440 Abstract Algebra (4)
MATHEMATICS EDUCATION FLAG COURSES
Oral (m)
    MTED 420 Technology and Professional Development in the
                        Secondary Schools (3)
```

Math/Critical Analysis (PJ)
MTED 125 Mathematics for Elementary Teachers (4)
MTED 322 Modern Geometry (4)

## DEPARTMENTAL CORE (25-26 S.H.)

Techniques of Continuous Mathematics - MATH (12 S.H.)
160 Calculus I (4)
165 Calculus II (4)
昀 260 Multivariable Calculus (4)
Matrix Algebra and Applications - MATH (3-4 S.H.)
130 Matrix Algebra (3) OR
Po $\dagger 270$ Differential Equations \& Linear Algebra (4)
Introduction to Theoretical and Discrete Mathematics-MATH (7 S.H.)
210 Foundations of Mathematics (4)
$\neq 305$ Probability (3)
Statistics - STAT (3 S.H.)
210 Statistics (3) OR
303 Introduction to Engineering Statistics (3) OR
305 Biometry (3)
$\dagger$ MATH 270 is required for the mathematics major．
$\ddagger$ With the academic advisor＇s approval，a different upper－division MATH or STAT course may be substituted for the mathematics major．

## BA MAJOR－MATHEMATICS（MATH）

40－41 S．H．（Minor or Second Major Required）
The BA Mathematics Program provides students with instruction in the basic techniques，applications，and theories of mathematics．Consequently，all BA 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 must earn a grade of＂ C ＂or higher in all required departmental courses．

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．

## DEPARTMENTAL CORE（26 S．H．）

With the advisor＇s approval，students may use an additional elective course to substitute for MATH 305．Mathematics majors are required to take MATH 270 （Differential Equations and Linear Algebra）．

## MATHEMATICS－MATH（11 S．H．）

PJ 330 Advanced Calculus I（4）
340 Advanced Linear Algebra（3）
Po 440 Abstract Algebra（4）

## ELECTIVES（3－4 S．H．）

One upper－division elective chosen from courses numbered MATH 310 and above or STAT 320 and above．

Writing（æ）
MTED 320 Teaching Mathematics in the Secondary Schools（3）

## STATISTICS FLAG COURSES

## Oral（＂）

STAT 415 Multivariate Analysis（3）
STAT 425 Modern Methods of Data Analysis（3）
Math／Critical Analysis（阿）
STAT 255 Data Management Using SAS（3）
STAT 320 Statistical Quality Control（3）
Writing（ß）
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．

## DOUBLE MAJOR IN MATHEMATICS AND MATHEMATICS EDUCATION

A student will be classified as a major in both mathematics and mathematics education if the student completes the Departmental Core and the required courses for a mathematics education major．

## DOUBLE MAJOR IN MATHEMATICS AND STATISTICS

A student will be classified as a major in both mathematics and statistics if the student completes the Departmental Core and the required courses for a statistics major in addition to the following MATH courses：
330 Advanced Calculus I（4）AND
335 Advanced Calculus II（4）OR
340 Advanced Linear Algebra（3）OR
440 Abstract Algebra（4）
BT MAJOR－MATHEMATCS：SECONDARY TEACHING（PMTH）
54－55 S．H．（No Minor Required）
Note：When this catalog went to print，all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching．Please contact your program advisor and refer to the Teacher Education Addendum （www．winona．edu／education／advising）for the latest information about program requirements whether you are（1）applying to a teacher education program，（2） currently enrolled in a teacher education program，or（3）expecting to graduate with a teacher education degree in 2010 or 2011.

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 described under＂Additional Coursework＂（page 155）．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 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 23.

## DEPARTMENTAL CORE（25－26 S．H．）

REQUIRED COURSES（22 S．H．）
Mathematics－MATH（11 S．H．）
解 310 Number Theory（3）
m=Oral Flag 胢= Math/Critical Analysis Flag 隹= Writing Flag

B 330 Advanced Calculus I (4)
B 440 Abstract Algebra (4)

## Mathematics Education - MTED (11 S.H.)

221 Middle School Methods in Mathematics (1)
B 320 Teaching Mathematics in the Secondary Schools (3)
fo 322 Modern Geometry (4)
m 420 Technology and Professional Development in the Secondary Schools (3)

## ELECTIVES (6 S.H.)

In consultation with an advisor, students should choose from courses numbered MATH 310 and above, STAT 320 and above, or MTED 420 and above.

## ADDITIONAL COURSEWORK (38 S.H.)

Students in the Mathematics: Secondary Teaching major must also complete the Professional Education Sequence and the additional courses listed below:

## Professional Education Sequence in the College of Education (32 S.H.)

* EFRT 305 Human Development and Learning (4)

EFRT 308 Human Relations and Student Diversity (3)
时 EFRT 312 Instructional Planning and Assessment: Secondary (3)
EDUC 429 Secondary Reading and Teaching Strategies (4)
B EFRT 449 Middle Level Philosophy, Organization and Interdisciplinary Planning (3)
ß EFRT 459 The Professional Educator (3)
m EDST 465 Student Teaching (12-16)
Health, Exercise and Rehabilitative Sciences
HERS 204 Personal and Community Health (3) (Also fulfills University Studies Basic Skills, Physical Development and Wellness requirement.
Special Education

* SPED 400 Education of Exceptional Children/Youth (3) (Also partially fulfills University Studies Arts \& Sciences Core, Social Science requirement.
For more information about teacher education requirements, see
"Teacher Education Programs" on page 214.


## BS MAJOR - MATHEMATICS: STATITTICS OPTION (MTST)

55-56 S.H. (No Minor Required)
The BS 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 (18 S.H.)

## Statistics - STAT

255 Data Management Using SAS (3) OR a CS course numbered 234 or above
360 Regression Analysis (3)
365 Experimental Design and Analysis (3)
® 450 Introduction to Mathematical Statistics I (3)
B 460 Introduction to Mathematical Statistics II (3)
Capstone Experience - STAT (3)
488 Statistics Projects (1-6) OR
492 Practicum in Statistics (3-6)
For each capstone experience, a project proposal must be developed in consultation with a faculty member. A written report is required for satisfactory completion of the capstone experience. The written report must summarize the work completed for the course. Students are expected to
submit a poster and/or give an oral presentation at a forum approved by the designated faculty member.

## ELECTIVES (12 S.H.)

In consultation with an advisor, students should choose 12 semester hours from MATH courses numbered 310 and above, STAT courses numbered 320 and above, CS courses numbered 234 and above, or FIN 335. Students may also choose other classes with a significant mathematical/statistical component offered outside the department; however, the courses must be approved by the Department of Mathematics and Statistics. At least 6 semester hours must be chosen from STAT courses.

## 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 who 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, 260, and 305
- STAT 210 and 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

STAT360 Regression Analysis (3)
FIN 335 Forecasting Methods (3)

- VEE Corporate Finance

FIN 360 Corporate Finance (3)
FIN 377 Investments (3)

## Quality Assessment and Improvement

Mathematics/Statistics majors who are interested in the area of quality assessment and improvement 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:

Quality 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 320-321
Six Sigma Black Belt/Green Belt: STAT 110 or 210 or 303, STAT 320-321

$$
\begin{aligned}
& \text { Manager of Quality/ } \\
& \text { Organizational Excellence: } \text { STAT } 110 \text { or } 210 \text { or } 303, \text { STAT 320, STAT } 350 \\
& \text { Reliability Engineer: } \text { MATH } 140 \text { or 160, STAT } 210 \text { or 303, STAT } 320-321
\end{aligned}
$$

## Biostatistics

Students interested in biostatistics are advised to take courses in biology, computer science, health sciences, and statistics, such as:

BIOL 310 Genetics
HERS 403 Epidemiology
CS 368 Introduction to Bioinformatics
STAT 405 Biostatistics
BA MINOR - MATHEMATICS (MATH)
22-23 S.H.
The Departmental Core (minus MATH 305) is the BA minor in mathematics.

BS MINOR－MATHEMATICS：EDUCATION OPTION（MTED）†
26 S．H．

## REQUIRED COURSES（26 S．H．）

## Mathematics－MATH（15 S．H．）

130 Matrix Algebra（3）
160， 165 Calculus I，II（8）
210 Foundations of Mathematics（4）
Mathematics Education－MTED（8 S．H．）
221 Middle School Methods in Mathematics（1）
b 320 Teaching Mathematics in the Secondary Schools（3）
解 322 Modern Geometry（4）
Statistics－STAT（3 S．H．）
210 Statistics（3）
$\dagger$ 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．

## BS MINOR－MATHEMATICS：STATISTICS OPTION（MTST） <br> 21－23 S．H．

Either teaching or non－teaching degree candidates may take the BS 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
PO MATH 270 Differential Equations and Linear Algebra（4）
MATH 140 Applied Calculus（3）OR
MATH 155 Modeling Using Calculus（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 |
| Pr | BUSA | 220 | Business Statistics（3）OR |
| Pu | 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） |
| 勆 | 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 |  |  |  |
| :---: | :---: | :---: | :---: |
| P | MATH | 305 | Probability（3） |
| $\neq$ | STAT | 321 | Industrial Design of Experiments I（3） |
| $\ddagger$ | STAT | 350 | Design of Sample and Surveys（3） |
| $\ddagger$ | STAT | 355 | Nonparametric Statistics（3） |
| $\ddagger$ | STAT | 360 | Regression Analysis（3） |
| $\ddagger$ | STAT | 365 | Experimental Design and Analysis（3） |
|  | STAT | 370 | Statistical Consulting（3） |
|  | STAT | 405 | Biostatistics（3） |
| キツ | STAT | 415 | Multivariate Analysis（3） |
| キツ | STAT | 425 | Modern Methods of Data Analy |
| B | STAT | 450 | Mathematical Statistics I（3） |
| B | STAT | 460 | Mathematical Statistics II（3） |

$\ddagger$ Can be used as an elective course if not used as a required course

## 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 334 （3）
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 （3）， 350 （3）
Sociology－SOC 376 （3）
Statistics－STAT 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 a different frequency is indicated．
MATHEMATICS－MATH

## 050 －Intermediate Algebra（3 S．H．）

A review of pre－algebra and 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.

## 112 －Modeling with Functions for Business（3 S．H．）

This course will help students learn both algebraic skills and problem－ solving skills．Topics include the algebraic and symbolic manipulation of linear functions，quadratic functions，exponential and logarithmic functions， trigonometric functions，polynomial and rational functions，inverses and compositions of functions，transformations of functions and their graphs， and applications．In addition，the course emphasizes problem－solving skills including unit analysis；changing representations（graphical，tabular， formulaic，and verbal）of data；comparison of solutions with intuition； and analysis of various solution methods．Prerequisite：MATH 050 or mathematics placement．

115 －College Algebra（4 S．H．）
This course will give students a rigorous preparation in algebra．Topics include review of basic algebraic concepts；functions and graphs；polynomial， radical，rational，exponential and logarithmic functions；equations， inequalities，systems of equations and inequalities；and applications． Prerequisite：MATH 050 or mathematics placement．

## 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 115.

## 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，MATH 112，MATH 115，or MATH 120.

## 150 －Modeling Using Precalculus and Statistics， 155 －Modeling Using

 Calculus（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 115．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 160.

260 - Multivariable Calculus (4 S.H.)
Multivariable functions and vector functions are studied as the concepts of differential and integral calculus are generalized to surfaces and higher dimensions. Topics include vectors, parametric equations, cylindrical and spherical coordinates, partial and directional derivatives, multiple integrals, line and surface integrals, and the theorems of Green, Gauss, and Stokes. 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.

## 305 - Probability (3 S.H)

Introduction to basic ideas and fundamental laws of probability. Topics include an introduction to combinatorics, probability axioms, conditional probability, discrete random variables, common discrete distributions, expectation, generating functions, limit theorems, and continuous random variables. Prerequisites: MATH 160 and MATH 210, or instructor's permission.

310 - Number Theory (3 S.H.)
A study of primes, divisibility, congruences, number-theoretic functions, and diophantine equations. Prerequisites: 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. Prerequisites: MATH 210 and 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. Prerequisites: 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, eigensystems, diagonalization of matrices, and canonical forms. Prerequisites:
MATH 210 and either MATH 130 or MATH 270, or instructor's permission. Strongly recommended: Completion of MATH 165 prior to enrollment. Offered spring semester.

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.
Prerequisites: CS 231 or CS 234 and MATH 260. Offered alternate fall semesters.

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.

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 on demand.

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 Probability for Elementary Teachers (4 S.H.)
The study of geometry using technology and probability topics essential to mathematics in the elementary and middle school grades. Prerequisite: MTED 125.
221 - Middle School Methods in Mathematics (1 S.H.)
Organization and methods of teaching mathematics in the middle school, including a 10-hour field experience. Prerequisite: MATH 160 or 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 (3 S.H.)
This course is designed to inform the prospective secondary mathematics teacher about current trends and issues in the teaching of mathematics. It also focuses on instructional techniques and development of appropriate materials for the classroom. The course includes a 30-hour field experience component at the secondary level. Prerequisites: MATH 165, MATH 210, and MTED 221. Offered fall 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 - Technology and Professional Development in the Secondary Schools (3 S.H.)
This course incorporates the use of technology in the teaching of mathematics, research in mathematics education, and professional development as a teacher of mathematics. Students are required to make a public presentation and attend a professional meeting. Prerequisites: MTED 320 and MTED 322. Offered fall semester.

489 - Special Topics (1-3 S.H.)
Exposure to mathematics education topics not included in other courses.
Prerequisite: Determined by topics.
490 - Independent Problems in Mathematics Education (1-4 S.H.) An opportunity to continue study of selected topics in mathematics education. Prerequisite: Instructor's permission.

## STATISTICS - 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.
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. Prerequisite: 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 spring 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, 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 alternate fall semesters.

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 or STAT 303). 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. Prerequisite: An introductory statistics course (preferably STAT 210). 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.

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. Prerequisite: An introductory statistics course (preferably STAT 210 or STAT 305). 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. Prerequisite: An introductory statistics course (preferably STAT 210 or STAT 305). Completion of, or concurrent enrollment in MATH 130 or MATH 270, is recommended; completion of STAT 360 is also recommended. Offered spring semester.
370 - Statistical Consulting (3 S.H.)
In this course, the student will gain an understanding of the nature of applied consulting and the scientific philosophies and skills required to be successful as a statistical consultant. This course will continue to develop the oral and written communication skills that are necessary for communicating technical statistical content with non-statisticians. Students will provide statistical consulting service to the University community when projects are available. Prerequisite: STAT 360 or STAT 365. Offered fall semesters.

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, KaplanMeier methods, and Cox proportional hazards models. Parametric methods and various nonparametric alternatives will be discussed. Prerequisite: 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. Prerequisites: MATH 260 and completion of or concurrent enrollment in MATH 220. Offered yearly as a fall/spring sequence.

## 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.
m=Oral Flag 胢=Math/Critical Analysis Flag 阿= Writing Flag

## MUSIC

Performing Arts Center, Room 146 (507-457-5250)
www.winona.edu/music
Deanne Mohr (Chairperson)

## FACULTY

Eric Brisson, Assistant Professor; BS, McGill University; BM, MM, DMA, Unitersite de Montreal; 2005 -
Suzanne Rhodes Draayer, Professor; BM, Furman University; MS, George Peabody College of Vanderbilt University; DMA, University of Maryland College Park; 1993 -
Donald Lovejoy, Professor; BS, Asbury College; MM, University of Regina; MM, Northwestern University; DMA, University of Wisconsin-Madison; 2000 R. Richard MacDonald, Professor; BM, MME, University of North Texas; DA, University of Northern Colorado; 1996 -

Harry Mechell, Professor; BMus, MM, Temple University; DMA, University of Illinois; 1989 -
Deanne Mohr, Associate Professor; BMus, University of Regina; MMus; Universite de Montreal; DMA, Universite de Montreal; 2002 -
Catherine Schmidt, Professor; BS, MS, University of Illinois, Urbana; PhD, University of Wisconsin-Madison; 1991 -
Paul Vance, Professor; BA, Moorhead State University; MM, University of Wisconsin-Milwaukee; DMA, University of Michigan; 1996 -

## PURPOSE

The Department of Music offers courses of study leading to a BS or a BA 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.

## 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 23.)
- Students majoring in music education (teaching) must have a 2.75 overall GPA and a 2.75 GPA in the major.
- All majors are required to register for Concert Attendance (MUS 001) each semester-maximum 8 semesters. Minors are required to complete four semesters of MUS 001, Concert Attendance.


## ENSEMBLE REQUIREMENT

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.

## 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 (BA 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.

## DEPARTMENT OF MUSIC RETENTION POLICIES

1. Music majors and minors may enroll in each music theory, music history, or music methods course twice only. 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 (M)
MUS 375 Fundamentals of Music Business (3)
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)
BS MAJOR MUSIC - LIBERAL ARTS (MUSL)
45 S.H. (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)
B. 351 Music from Antiquity through the Baroque Period (3)

B 352 Music from the Classical Period to the Present (3)

## REQUIRED COURSES (15-16 S.H.)

109 Introduction to Music (3)
Choose one from the following pedagogy courses (1-2 S.H.) (See Note 1
below.)
415 Vocal Pedagogy (2)
416 Piano Pedagogy (2)
417 Instrumental Pedagogy for the Applied Studio (1)
Choose one from the following literature courses (2-3 S.H.) (See Note 1
below.)
m 471 Italian Vocal Literature (2)
m 472 German Vocal Literature (2)
m 473 French Vocal Literature (2)
mim Instrumental Literature and Styles (3)
m 477 Piano Literature I (2)
Major Performing Large Ensemble (4)
Choose one: MUS 241 (Symphonic Wind Ensemble), MUS 242
(Orchestra), or MUS 243 (Concert Choir). (See Note 2 below.)
Applied Lessons in Primary Performance Medium (4) (See Note 3 below.)
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 120 does not fulfill elective requirements. (Suggested course: MUS 402, Form and Analysis, to fulfill Critical Analysis Flag requirement.)

Math/Critical Analysis (Fa)
MUS 402 Form and Analysis (3)
Writing (2)
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.

## PIANO PROFICIENCY (O S.H.)

See page 159 for information concerning piano proficiency.
OTHER REQUIREMENT: Students must take their Fine and Performing Arts University Studies requirements in an art form other than music.

## Music (Liberal Arts) Notes:

1. Pedagogy and literature courses must correspond to the student's major performing medium.
2. All credits must be taken in the large ensemble related to major performing medium. Students must participate in this large ensemble every semester they are enrolled as music majors.
3. Students must enroll in a minimum of four semesters of applied lessons in their major performing medium, and they must pass the 260 series requirements in applied lessons to graduate.

## BA MAJOR MUSIC - PERFORMANCE (MUSP)

## 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 - 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)
B 351 Music from Antiquity through the Baroque Period (3)
\& 352 Music from the Classical Period to the Present (3)

## REQUIRED COURSES (47 S.H.)

109 Introduction to Music (3)
305, 306 Conducting I, II (2)
Choose one from the following pedagogy courses (1-2 S.H.) (See Note 1 below.)

415 Vocal Pedagogy (2)
416 Piano Pedagogy (2)

$$
\text { M O Oral Flag } \quad \text { 时 = Math/Critical Analysis Flag } \quad \text { B }=\text { Writing Flag }
$$

417 Instrumental Pedagogy for the Applied Studio (1)
453 Topics in Music History
Literature and Techniques Courses ( 5 or 6 S.H.) (See Note 1 below.)
Vocal Performance Majors:
m 471 Italian Vocal Literature (2)
472 German Vocal Literature (2)
em 473 French Vocal Literature (2)
Instrumental Performance Majors:
475 Instrumental Literature and Styles (3)
Choose two of the following four courses:
311 Woodwind Methods I (1)
312 String Methods I (1)
313 Percussion Methods I (1)
314 Brass Methods I (1)
Piano Performance Majors:

* 477 Piano Literature I (2)
m 478 Piano Literature II (2)
m 479 Piano Literature III (2)
Additional Requirements in Performance Area (2 S.H.)
Vocal Performance Majors:
161 Applied Lessons in Piano (2)
Instrumental Performance Majors:
255 Jazz Improvisation (2)
Piano Performance Majors:
337 Accompanying (2)
Chamber Ensemble (2-4 S.H.)
Vocal Performance Majors:
249 Vocal Chamber Ensemble (1) (Two semesters/credits required)
Instrumental Performance Majors:
Choose one of the following courses: (Four semesters/credits required):
240 Percussion Ensemble (1)
245 String Ensemble (1)
246 Brass Ensemble (1)
247 Woodwind Ensemble (1)
Piano Performance Majors:
248 Chamber Ensemble (1) (Two semesters/credits required)
Major Performing Large Ensemble (8) (See Note 2 below.)
Choose one: MUS 241 (Symphonic Wind Ensemble), MUS 242
(Orchestra), or MUS 243 (Concert Choir).
Applied Lessons in Primary Performance Medium (16) (See Note 3 below.) 480 Junior and Senior Recital (3)


## 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.)

## ADDITIONAL REQUIREMENTS (8 S.H.)

- Foreign language (French, German, or Spanish). (Fulfills Humanities in University Studies Program.)
- Students must pass a piano proficiency exam. (0)


## Music Performance Notes:

1. Pedagogy and literature courses must correspond to the student's major performing medium.
2. All credits must be taken in the large ensemble related to major performing medium. Students must participate in this large ensemble every semester they are enrolled as music majors.
3. Students must enroll in a minimum of eight semesters of applied lessons.
BS MAJOR - MUSIC EDUCATION (Teaching) (MSTI; MSTV) 136 S.H. (Total S.H. includes all University Studies requirements.)

Note: When this catalog went to print, all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact your program advisor and refer to the Teacher Education Addendum (www. winona.edu/education/advising) for the latest information about program requirements whether you are (1) applying to a teacher education program, (2) currently enrolled in a teacher education program, or (3) expecting to graduate with a teacher education degree in 2010 or 2011.

## 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 EFRT 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 EFRT 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)
B 351 Music from Antiquity through the Baroque Period (3)
巴 352 Music from the Classical Period to the Present (3)

## REQUIRED COURSES: BOTH VOCAL AND INSTRUMENTAL LICENSURES (31 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)
305 Conducting I (1)
306 Conducting II (1)
406 Conducting: Advanced Score Study (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 1 below.)
Private Instruction in Major Applied Field (6) (See Note 2 below.)

## Music Education Notes:

1. Credits must all be taken in the large ensemble related to major performing medium. Students must participate in this large ensemble every semester they are enrolled as music majors.
2. Students must enroll in a minimum of six 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) OR MUS 136 Applied Voice for the Instrumentalist (1) (Two consecutive semesters required to earn two S.H.)
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 two credits of MUS 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 FOR K－12 AND 5－12 LICENSURE （32－36 S．f．）

Note：Teaching majors must take all courses in the Professional Education Sequence in addition to courses in the content area．Professional Education Sequence courses require formal admission to the teacher education program． For more information about teacher education admission requirements，see ＂Teacher Education Programs＂on page 215.
＊EFRT 304 Human Development and Learning：Middle Level and K－12（4）OR
＊EFRT 305 Human Development and Learning：Secondary（4）
＊EFRT 308 Human Relations and Student Diversity（3）
㫬 EFRT 311 Instructional Planning and Assessment：Middle Level and K－12（3）OR
㽖 EFRT 312 Instructional Planning and Assessment：Secondary（3）
EDUC 429 Secondary Reading and Teaching Strategies（4）
ß EFRT 449 Middle Level Philosophy，Organization and Planning（3）
ß EFRT 459 The Professional Educator（3）
EmST 465 Student Teaching（12－16）

## OTHER REQUIREMENTS

In addition to the above course requirements，all students must：
－Pass a piano proficiency examination（see page 159 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．
BS MAJOR－MUSIC（MUSIC BUSINESS）（MUBU）
84－85 S．H．（No Minor Required）
CORE REQUREMENTS（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）
P 351 Music from Antiquity through the Baroque Period（3）
B 352 Music from the Classical Period to the Present（3）
REQUIRED COURSES（25－26 S．H．）
003 Music Business Seminar（3）（Required every semester the student is enrolled．）
109 Introduction to Music（3）
Choose one：MUS 241 （Symphonic Wind Ensemble），MUS 242
（Orchestra），or MUS 243 （Concert Choir）．（See Note 1 below．）
Applied Lessons in Primary Performance Medium（4）（See Note 2 below．）
AAD 301 The Arts Organization（3）
AAD 302 Introduction to Arts Administration（3）
m MUS 375 Fundamentals of Music Business（3）
Select 5－6 credits from the following courses－MUS（Two 3－credit courses）： 110 －History of Jazz
111 －Film Music
122 －History of Rock Music
107 －Music Technology I
108 －Audio Production I
＝Oral Flag $\quad$ 时＝Math／Critical Analysis Flag $\quad$ B Writing Flag

OR one 3－credit course and two 1－credit courses from the following：
311 －Woodwind Methods
312 －String Methods
313 －Percussion Methods
314 －Brass Methods
CAPSTONE PROJECTS－MUS（13．S．H．）
399
Music Internship（10）
399 Music Internship（10）
491 Independent Study（3）

## ADDITIONAL REQUIREMENTS（BUSINESS）（21 S．H．）

Accounting－ACCT（6 S．H．）
211 Financial Accounting Principles（3）
Business Administration－BUSA（6 S．H．）
220 Business Statistics
291 Legal Environment of Business

## Economics－ECON（6 S．H．）

＊ 201 Principles of Microeconomics（3）
＊ 202 Principles of Macroeconomics（3）
Finance－FIN（3 S．H．）
360 Corporate Finance（3）
Marketing－MKTG（3 S．H．）
300 Principles of Marketing（3）

## PIANO PROFICIENCY

Students must pass a piano proficiency exam．
Music Business Notes：
1．Credits must all be taken in the large ensemble related to major performing medium．Students must participate in this large ensemble every semester they are enrolled as music majors．
2．Students must enroll in a minimum of four semesters of applied lessons， and they must pass the 200－level requirements in applied lessons to graduate．

## BA MINOR－MUSIC（MUSA）

20 S．H．
REQUIRED COURSES（17 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 1 below．）
Applied lessons in primary performance medium（2）（See Note 2 below．）

## BA Music Minor Notes：

1．Credits must all be taken in the large ensemble related to major performing medium．Must be the same ensemble all four semesters．
2．Students must enroll in a minimum of two consecutive semesters of applied lessons．

## ELECTIVES（3 S．H．）

Any three credits of music elective courses except MUS 109 and MUS 120.

## BA MINOR－MUSIC／JAZZ STUDIES（MUJS）

25 S．H．
REQUIRED COURSES－MUS（25 S．H．）
001 Concert Attendance（0）
110 Jazz History（3）
201 Music Theory I（4）
206 Jazz Fundamentals（2）
239 Jazz Combo（1）（2 semesters required to earn 2 S．H．）
244 Jazz Ensemble（1）（ 2 semesters required to earn 2 S．H．）
255 Jazz Improvisation I（2）
256 Jazz Improvisation II（2）
334 Jazz Piano Class（2）
355 Jazz Improvisation III（2）
356 Jazz Improvisation IV（2）
Applied lessons in primary performance medium（2）．Students must
enroll in a minimum of two consecutive semesters of applied lessons．

BS MINOR - MUSIC (MUSS)
26 S.H.
Minor suggested for elementary education majors. Music minor not for licensure.

## REQUIRED COURSES (24-28 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, OR 243. (See BS Music Minor Note.)
Applied Piano (Studio instruction) (2) OR 234 (2), 235 (2), and 335 (2) OR

Applied Guitar (Studio Instruction) (2). Students must enroll in a minimum of two semesters of applied lessons. Substitution of two credits of MUS 315 permitted.
298 Foundations and Principles of Music Education (3)
305 Conducting I (1)
322 Elementary Music Methods (3)
BS Music Minor Note: Credits must all be taken in the large ensemble related to major performing medium. Must be the same ensemble all four semesters.

## 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.
Prerequisite: Instructor's permission. Offered yearly.
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. Prerequisite: Instructor's permission. Offered yearly.

## 236 - Class Voice (2 S.H.)

Classification of voices, English diction, fundamentals of vocal techniques.
Performance of songs in English and Italian. Offered alternate years.
334 - Jazz Piano Class (2 S.H.)
Basics of jazz harmony and theory as they relate to the piano in a functional context (for non-pianists). Prerequisite: MUS 235 or the successful completion of the piano proficiency exam, or instructor's permission.
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. Prerequisite: Instructor's permission. Offered yearly.
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. 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 one semester hour credit. 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 one semester hour credit. One-hour lessons receive two semester hour credits. Prerequisite: Enrollment in all applied lesson series requires the instructor's permission.

060-series: Students entering with limited music background (2 S.H.) Prerequisite: Instructor's permission.

160-series: Entering students with previous musical training and background (1 or 2 S.H.) Students pursuing secondary performance medium. Prerequisite: Instructor's permission.

260-series: Second-year students (1 or 2 S.H.)
Students must show sufficient progress in 160-level series lessons before enrolling for 260-level series lessons. Prerequisite: Instructor's permission. 360-series: Third-year students (1 or 2 S.H.)
Students must show sufficient progress in 260-level series lessons before enrolling for 360-level series lessons. Prerequisite: Instructor's permission. 460-series: Fourth-year students and beyond (1 or 2 S.H.)
Students must show sufficient progress in 360-level series lessons before
enrolling in 460-level series lessons. Prerequisite: Instructor's permission.
061, 161, 261, 361, 461 - Piano (1 or 2 S.H.)
062, 162, 262, 362, 462 - Voice (1 or 2 S.H.)
$063,163,263,363,463$ - Strings (1 or 2 S.H.)
064, 164, 264, 364, 464 - Woodwinds (1 or 2 S.H.)
065, 165, 265, 365, 465 - Brass (1 or 2 S.H.)
066, 166, 266, 366, 466 - Percussion (1 or 2 S.H.)
170, 270, 370, 470 - Jazz Piano Instruction (1 S.H. only)
136 Applied Voice for Instrumentalists (1 S.H.)
Designed to help instrumental music education majors develop and enhance basic vocal skills, including diaphragmatic breath, relaxed throat, tongue, and jaw, resonance, vowel placement, diction, intonation, and tone quality. May be repeated for credit. Prerequisite: Instructor's permission. Offered every semester.

## 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.

142 Oratorio Chorus (1)
143 Women's Chorus (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)
248 Chamber Ensemble (1)
249 Vocal Chamber 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.
P/NC only.
003 - Music Business Seminar (0 S.H.)
A seminar designed to provide a forum for music business majors to come together for discussion and activities centered on topical issues in the field of music business. All music business majors are required to enroll each semester that they are in attendance at WSU. P/NC only.

298 - Foundations and Principles of Music Education (3 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 an alternate to this course.
Prerequisite: Admission to the Professional Education Sequence. Not for music majors. Not applicable toward BA degree. Offered each semester.

322 - Elementary Music Methods I (3 S.H.)
Study of material and methods for music instruction in the elementary
grades. Not applicable toward the BA 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 BA degree. Prerequisites: Successful completion of guitar and piano proficiencies and admission to the Professional Education Sequence. Offered alternate years.

332 - Elementary Music Methods II (2 S.H.)
Advanced study of materials and methods for elementary music instruction. Development and application of skills and techniques needed to successfully teach elementary general music. Prerequisites: MUS 322, successful completion of guitar and piano proficiencies, and admission to the
Professional Education Sequence. Offered yearly.
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.
375 - Fundamentals of Music Business (3 S.H.)
Introduction to the skills and concepts required for success in the music industry, including personal management, music law, copyright, ethics, record deals, songwriting and music publishing, touring, merchandising, entrepreneurship, and technology. Prerequisite: Four semesters of MUS 003 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. Prerequisites: Successful
completion of required music and business courses with a 2.5 GPA or better.
P/NC only. Offered each semester.
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.
Prerequisite: Instructor's permission. Offered in a three-year rotation.
417 - Instrumental Pedagogy for the Applied Studio (1 S.H.)
Techniques and methodologies of instrumental instruction. Each section focuses on a specific instrument/instrument group. Prerequisite: Instructor's permission. Offered on demand.
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.

## 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 based on demand.
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

001 - Concert Attendance (0 S.H.)
Concert attendance requirement for music majors and minors only.
Prerequisite: None. P/NC only.
107 - Music Technology I (3 S.H.) TRANSFER ONLY - Rochester
Course: MUSC 1601
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. Prerequisite: None.

108 - Audio Production I (3 S.H.) TRANSFER ONLY - Rochester Course: MUSC 1621
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. Prerequisite: 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 yearly.

111 - Film Music: Art Behind the Scenes (3 S.H.)
This course will demonstrate the importance of music in perhaps the most important 20th century new entertainment and artistic medium known as "Film." The course will progress from the early beginnings of the silent screen up to the present day. Students will learn the important, basic musical elements (i.e. melody, rhythm, harmony, etc.) and how composers use them in film scoring. Students will do a "hands-on" project putting music to a film clip. No prior music experience necessary. Laptop is required.

## 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.

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.)
Study of the fundamental structures of music, including meter, tonality, intervals, diatonic triads and dominant seventh chords, and melodic organization and texture. Development of aural skills related to these concepts. Prerequisite: Successful completion of Theory Entrance Exam or MUS 120 and a declared music major or minor. Offered yearly.

## 202 - Theory II (4 S.H.)

Application of the concepts studied in MUS 201 (Theory I) to four-part writing and harmonic analysis, including dominant, nondominant and leadingtone seventh chords, secondary dominant and leading tone chords. Study of binary and ternary forms. Development of aural skills related to these concepts. Prerequisite: MUS 201 and a declared music major or minor. Offered yearly.

## 203 - Theory III (4 S.H.)

Study of modulation, borrowed chords, Neapolitan and augmented sixth chords, applied to four-part writing. Study of simple part forms, variation technique, two-voice 18th century counterpoint, and invention form applied to composition. Further development of aural skills. Prerequisite: MUS 202 and a declared music major. Offered yearly.

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\text { m Oral Flag } \quad \text { 时 = Math/Critical Analysis Flag } \quad \text { B }=\text { Writing Flag }
$$

## 204-Theory IV (4 S.H.)

Study of chromatic harmony applied to four-part writing. Study of fugue, rondo, and sonata form applied to composition. Exploration of romantic, impressionist, early 20th century (12-tone technique and set theory), and contemporary music from a theoretical point of view. Further development of aural skills. Prerequisite: MUS 203 and a declared music major. Offered yearly.
206 - Jazz Fundamentals (2 S.H.)
Intended to be taken as a prerequisite to the jazz improvisation sequence, focus on basic jazz chord theory; graded major, minor, and modal scales; arpeggios; and jazz patterns at specific metronome markings. Call and response activities and ear training. Prerequisite: MUS 201 or instructor's permission. Offered every other year.

207 - Music Technology II (2 S.H.) TRANSFER ONLY - Rochester Course: MUSC 1602
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. Prerequisite: MUS 107 (Electronic Music I).

208 - Audio Production II (3 S.H.) TRANSFER ONLY - Rochester Course: MUSC 1622
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. Prerequisite: 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 modal scales, chord terminology, the blues, and basic jazz forms. Prerequisites: MUS 201 and MUS 206 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. II-V-I progression in major and minor keys and advanced blues. Prerequisite: MUS 255 or equivalent. Offered alternate years.

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 jazz ensembles. Prerequisites: MUS 204 and
MUS 256 or equivalent. Offered occasionally.

## 305 - Conducting I (1 S.H.)

Techniques of conducting choral and instrumental groups. Prerequisite : MUS 202 or instructor's permission. Offered yearly.

## 306 - Conducting II (1 S.H.)

Techniques of conducting choral and instrumental groups. Continuation of MUS 305 (Conducting I). Prerequisite: MUS 305 or instructor's permission. Offered yearly.

351 - Music from Antiquity through the Baroque Period (3 S.H.) Study of the development of music from antiquity through approximately 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 nonmajor. Offered yearly.

352 - Music from the Classical Period to the Present (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. Prerequisites: 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. Altered dominant 7th chords, diminished scales, modes of harmonic and melodic (jazz) minor. Prerequisite: MUS 256 or equivalent. Offered alternate years. 356 - Jazz Improvisation IV (2 S.H.)
This course is the final course in a four-part sequence in jazz improvisation. In-depth investigation of major group styles, intervallic improvisation, free jazz. Prerequisite: MUS 355 or equivalent. Offered alternate years.

## 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.
406 - Conducting: Advanced Score Study (1 S.H.)
Advanced techniques of conducting choral and instrumental groups.
Prerequisites: 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.
453 - Topics in Music History (3 S.H.)
Intensive study of representative composers, works, and cultural milieu of a specific topic related to the history of music. Prerequisites: MUS 351 and MUS 352 or instructor's permission. Offered on demand.

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 eight 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 in a three-year rotation.
472 - Survey of Vocal Literature II (German) (2 S.H.)
Lieder of Schubert, Schumann, Franz, Mendelssohn, Brahms, Strauss, Wolf, and others. Offered in a three-year rotation.
473 - Survey of Vocal Literature III (French) (2 S.H.)
Representative French songs of Faure, Duparc, Chausson, Debussy, Poulenc, and others. Offered in a three-year rotation.
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. Prerequisite: Instructor's permission. Offered in a three-year rotation.
478 - Piano Literature II (2 S.H.)
Piano literature of the Romantic period (including brief look at
Nationalism). Continued developments in instrumental design of piano discussed. Prerequisite: Instructor's permission. Offered in a three-year rotation.

479 - Piano Literature III (2 S.H.)
Piano literature of the Impressionistic and Contemporary (early 20th century to the present) periods. Prerequisite: Instructor's permission. Offered in a three-year rotation.
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 or 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 six credits. Prerequisite: Department's permission. Offered each semester.

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

## FACULTY

Note: All nursing faculty are registered nurses.
Susan Ballard, Professor; BSN, University of Illinois; MSN, University of Minnesota; 1984 -
Cynthia Bork, Associate Professor; BSN., College of Saint Teresa; MS, Winona State University; EdD, St. Mary's University of Minnesota; 1993 -
Susan Davies, Associate Professor; BSc, University of Southhampton (UK); MSc, University of Surrey (UK); PhD, University of Sheffield (UK); 2009 -
Diane McNally Forsyth, Professor; BS, Winona State University; MS, University of Wisconsin-Madison; PhD, University of Wisconsin-Milwaukee; 2004 -
Linda Heath, Professor; BS, MSN, University of Wisconsin; PhD, Walden University; 1993 -
Sandra Herron, Assistant Professor; BS, MS, Winona State University; 2008 -
Judy Hovelson, Associate Professor; BSN, University of Vermont; MSN, University of Minnesota; FNP, Winona State University; 1984 -
Carole Jenson, Assistant Professor; BS, MS, Winona State University; 2007 -
Lola Johnson, Professor; BSN, Minnesota State University-Mankato; MSN, Washington University; PhD, Rush University; 1989 -
Katbryn Lammers, Assistant Professor; BS, Kent State University; MSN, Winona State University; 2001 -
Deborah Mangan-Danckwart, Assistant Professor; BSN, College of Saint Teresa; MS, University of Minnesota Twin Cities; University of Minnesota Twin Cities; 2008 -
William McBreen, Professor; Dean, College of Nursing and Health Sciences; BSN, Mount Marty College; MSN, University of Nebraska Medical Center; PhD, University of Texas; 2000 -
Sonja Meiers, Professor, BSN, College of Saint Teresa; MSN, Winona State University; PhD, University of Minnesota Twin Cities; 2009 -
Shirley Newberry, Professor; BS, University of Dubuque; MS, Winona State University; PhD, Rush University; 1994 -
Catherine Nosek, Professor; AD, Inver Hills Community College; BS, MS, University of Wisconsin; PhD, University of Wisconsin-Madison; 1997 -
Gayle P. Olsen, Professor; BSN, College of Saint Teresa; MSN, University of California; PhD, University of Arizona; 1980 -
Ann Olson, Associate Professor; BS, Winona State University; MA, St. Mary's University of Minnesota; MS, Winona State University; 2007 -
Lynne Ornes, Associate Professor; BS, Grand Valley State University; MS, Texas Women’s University; PhD, University of Utah; 2008 -
Kathy S. Orth, Professor; AA, Austin Community College; BSN, College of Saint Teresa; MSN, University of Minnesota; 1983 -
Christine E. Pilon-Kacir, Professor; BSN, Mercy College of Detroit; MS, University of Michigan; PhD, University of Missouri, 1992 -
Julie Ponto, Professor; BSN, University of Minnesota; MSN, University of California-San Francisco; PhD, University of Utah; 2004 -
Amy Reitmaier, Assistant Professor; BS, MS, Winona State University; 2006 -
Martha Scheckel, Assistant Professor; BSN, Graceland University; MSN, Clarke College; PhD, University of Wisconsin-Madison; 2005 -
Cindy Scherb, Professor; BS, Mount Mercy College; MS, University of Minnesota; PhD, University of Iowa; 2002 -
Lisa Schnepper, Associate Professor; AD, Western Wisconsin Technical College; BS, Winona State University; MS, University of Wisconsin-Eau Claire; PhD, University of Wisconsin-Milwaukee; 2005 -
Linda Seppanen, Professor; BSN, St. Olaf College; MSN, The Catholic University of America; PhD, University of Alabama; 1990 -
Joanne Stefjkal, Professor; BSN, College of Saint Teresa; MSN, University of Wisconsin; EdD, University of St. Thomas; 1975 -
Susan Sullivan, Assistant Professor; BS, MS, DNP, Winona State University; 2004 -
Patricia Thompson, Professor; BSN, BS, Winona State University; MSPH, PhD, University of Minnesota; 1990 -
Mieca Valen, Associate Professor; BS, Augustana College; MS, South Dakota State University; 2005 -
Mary Welhaven, Professor; BSN, Winona State University; MS, PhD, 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 programs:

- Baccalaureate: Nursing for students seeking professional preparation at the level of BS degree (Bachelor of Science in Nursing) and registered nurse licensure. This program 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.
- Baccalaureate: RN Completion for those who already hold a registered nurse license and are now seeking a BS degree. This program includes sequenced upper-division nursing courses that can be completed in one to two years after all other degree requirements are completed. The Baccalaureate: RN Completion program can be completed on a fulltime or part-time basis at the Rochester campus. (See page 37 for more information.) 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.
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 Baccalaureate: Nursing program who are assigned to the Winona campus participate in acute care clinical experiences at Winona Health and the Gundersen-Lutheran and Franciscan-Skemp medical complexes in La Crosse, Wisconsin. Students in the Baccalaureate: Nursing program who are 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 Baccalaureate: RN Completion program have learning experiences in the Rochester area and in their own communities through a variety of community and county agencies. RN -toBS 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. A separate application to the upperdivision nursing program is required.

## Admission to the Baccalaureate: Nursing Program

Students may apply to the nursing program in the semester prior to the start of upper-division nursing coursework. Students should check the Department of Nursing website for the application due date each semester. Students will be notified of their admission to the nursing major the semester in which they apply. Nursing advisors are available to assist in the process. For fall semester, about 100 students are admitted with 50 assigned to the Winona campus and 50 to the Rochester campus; for spring semester, 50 are admitted to the Winona campus only.

When students apply to the Baccalaureate Nursing program, they must meet the following criteria:

1. The WSU admissions process must be completed before the application
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deadline for the nursing major.
2. They must complete 45 credits of college work with GPA of 3.25 or better when they apply as reflected on DARS; this GPA is recalculated if a course is being repeated in the current semester.
3. Within the last 10 years, applicants must have completed five natural science prerequisite courses, four social science prerequisite courses, college English, and statistics. All prerequisites must have been completed with a grade of "C" or better.
4. Students must show a plan for completing remaining prerequisite courses prior to starting nursing coursework.
5. The Test of Essential Academic Skills (TEAS) must be completed during the semester in which the student applies.
6. A Health Exam form must be filed with the WSU Student Health Service or at RCTC within the last year.
7. The Functional Abilities Statements by Provider and by Student must be completed and filed with the Department of Nursing within six months before the student's application.
8. A completed admission application must be submitted for a given semester by the due date.
9. Students who transfer from another nursing program must submit to the Department of Nursing a letter from the academic head of their previous program stating that the student is eligible for continuation or readmission to that program. Placement in the major will then be determined based on background and space available.
The admission decision is based on completion of the application by the due date and a Preferred Admission Contract or sufficiently high Admission Score for that applicant pool.

## Additional Criteria

When students begin nursing coursework in the major, they must show that they have satisfied the following requirements:

1. All of the following prerequisites completed with a grade of "C" or better within the last 10 years.
Natural Science Prerequisites:
BIOL $209 \quad$ Microbiology (3)
BIOL 211/ 212 Anatomy \& Physiology I \& II (8)
CHEM 210 Chemistry for Health Sciences (5) OR
CHEM 212/213 Principles of Chemistry I \& II (8)
BIOL 206 Normal Nutrition (3) OR
HERS 205 Nutrition for Lifetime Wellness (3)

## Social Science Prerequisites:

PSY 210 Introduction to Psychological Science (3)
PSY 250 Developmental Psychology (3)
SOC $150 \quad$ Introduction to Sociology (3)
SOC 212 The Family (3)

## Other Prerequisites:

ENG 111 (or its equivalent)
PSY 231 Statistics (3) OR
(Note: PSY 231 does not fulfill a mathematics requirement for the University Studies Program.)
STAT 305 Biometry (or its equivalent) OR
STAT $110 \quad$ Fundamentals of Statistics (or its equivalent)
2. The Department of Nursing Health Forms completed by published due date; the forms include immunizations and insurance forms.
3. Background Check forms completed by the published due date.
4. Current CPR certification for a health care provider obtained by the published due date.
5. Active status on the MN Board of Health Nursing Assistant Registry obtained by the published due date.

## Preferred Admission Contract

For all eligible students who want to graduate in four academic years, Winona State University facilitates the process of obtaining the necessary courses as required by the University, the College of Nursing and Health Sciences, and the Department of Nursing. This Preferred Admission Contract applies to new entering first-year students who begin at Winona State University; students who earn college credits during high school years meet this requirement. Students who meet the following requirements have priority in admission to the upper-division nursing major.

To participate in the Preferred Admission Contract, a new entering firstyear student must have an ACT score of 22 or higher or an SAT of 1030 or higher and, during the first two weeks of his or her first semester classes, the student must complete the Preferred Admission Contract application form and officially declare a Baccalaureate Nursing major. All participating students must:

1. Be qualified to begin college-level (i.e., non-remedial) science,
mathematics/ statistics, and English courses as required by the nursing
major. If the student takes MATH 050 or English 099, this contract is void. All 100-level university courses are acceptable and not considered remedial.
2. Pre-register for classes each semester and have his or her schedule approved by his or her official WSU nursing advisor.
3. Meet any University or program GPA and/or grade requirements as stipulated in the University catalog and/or schedule of classes.
4. Successfully complete an average course load of 15 credits each fall and spring semester ( 30 credits per academic year).
5. Complete all prerequisite courses with a grade of "C" or better at WSU; the participating student cannot withdraw ("W") or repeat any of these prerequisite courses.
6. Apply for admission to the nursing major after their third semester of coursework at Winona State University.
7. Earn a cumulative GPA of 3.50 for the required prerequisite courses at the time of first application to the nursing major. The GPA is not rounded up.
8. Earn a Test of Essential Academic Skills (TEAS) score of 80 or above on the first attempt.
Students who meet the preceding requirements of the Preferred Admission Contract and the admission criteria are admitted to the nursing major. The Preferred Admission Contract is valid for the BS Nursing major which is declared upon admission and not changed in major, option, or minor. Failure to meet any of the above conditions in this section of the catalog voids the Preferred Admission Contract. Once the contract is void, the student is not eligible for reinstatement of the contract.

## Admission Score

The admission scoring process is designed for those students who do not have a Preferred Admission Contract; this includes transfer students, WSU students who have changed their major to nursing, and new entering firstyear students who wish to extend the education process to five years or more. Points are awarded in each category with the approximate weighting of the components as follows in sequential order: (a.) $60 \%$, (b.) $20 \%$, (c.) $15 \%$, and (d.) 5\%. Applicants are rank ordered by Admission Score. An Admission Score is calculated based on the following components:
a. GPA based on the most recent grades in four natural science prerequisite courses, most recent grades in three social science prerequisite courses, college English, and statistics. All prerequisites must be completed with a grade of "C" or better, and the natural science and social science courses must have been completed within the last 10 years.
b. Score on the Test of Essential Academic Skills (TEAS).
c. Starting college coursework at Winona State University or Rochester Community and Technical College, declaring nursing as the pre-nursing major (declaring BS Nursing at WSU or Path To Purple Program at RCTC), and completing all prerequisite courses at these colleges.
d. All prerequisite courses taken only once; no repeating or withdrawing with a "W."

## Admission to the Baccalaureate: RN Completion Program

Complete the WSU admissions process before applying to the nursing major. After receiving the Official Evaluation of Credit from the Office of Admissions, arrange an appointment with a nursing advisor on the Rochester campus.

1. Apply for admission to the nursing major. Applicants to the Baccalaureate RN Completion Program are admitted once a year for the following academic year.
2. 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 Baccalaureate RN Completion Program to ensure that all requirements are fulfilled. Select the full-time or part-time option for completing the nursing courses.
3. Additional degree requirements beyond nursing courses will need to be completed for graduation. It is highly recommended that all other credit requirements be completed prior to starting the Baccalaureate RN Completion Program.
4. All Baccalaureate RN Completion students must hold a current RN license issued by a state or territory of the United States. A photocopy of the license must be submitted to the Nursing Department.
5. The admission GPA is calculated on the most recent five years of college coursework or the last 50 semester hours of credits of college work. A 2.75 GPA is required for admission into the Baccalaureate RN Completion Program.
6. Twenty-four credits in the Baccalaureate RN Completion Program of the nursing major (NURS 302, NURS 304, NURS 306 and NURS 308) will be granted by transfer to RNs 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 RN s who are graduates of diploma programs. If all examinations are successfully completed, the 24 credits are granted.
7. RN graduates from a non-accredited nursing program will be required to complete an assessment to validate prior learning.
8. Associate nursing degrees received before 1985 will be reviewed on an individual basis.

## Admission to the RN-to-MS Professional Pathway

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 to earn a Master's 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. Acceptance in a focus area is not guaranteed. Further information can be obtained from the Department of Nursing at WSU-Rochester.

## 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 (RNs) 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 (AS) 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 an RN.
4. The AS degree transfers to the baccalaureate institution as a complete package of nursing major and supporting courses.
5. Articulation RNs should not be required to complete more total credits for the degree than the nursing baccalaureate students.

## ACADEMIC POLICLES, PROCEDURES, REQUIREMENTS, AND RESOURCES

 CostsStudents are expected to provide their own transportation to all site-based experiences. The student must assume incidental costs including housing, professional liability insurance, health insurance, physical examination, uniforms, lab coat, name pin, and stethoscope. Initial book purchases cost $\$ 800$ or more, but most of these books will be used throughout the program and may include electronic versions downloaded to the student's laptop.

Costs that students incur to maintain their health (including but not limited to throat cultures, treatments, blood test, x -rays, doctors visits) are the sole responsibility of the student. Clinical agencies used for site-based experiences require a physical examination, professional liability insurance, health insurance, yearly Mantoux or chest x-ray, proof of rubeola/rubella immunity, hepatitis B vaccine, and CPR certification. There may be additional requirements specific to each clinical agency.

## Scholarships

A number of scholarships are available for nursing majors. For the most part, scholarships are awarded on the basis of financial need and/or academic achievement. To document proof of financial need, students may be required to complete the FAFSA (Free Application for Federal Student Aid).
Scholarships are usually awarded in the spring for the following school year. Scholarship information can be found on the Department of Nursing website at http://www.winona.edu/nursing/undergraduate/7895.asp.

Individual benefactors, affiliating hospitals, and professional and community organizations also provide scholarships. Students are encouraged to contact agencies (hospitals, nursing homes, American Legion, VFW, etc.) in their hometowns with regard to possible nursing scholarships.

## Professional-Related Organizations

- Minnesota Student Nurses Association (MSNA): This is a preprofessional organization with membership at the local, state, and national levels. Declared nursing majors are welcome and encouraged to join. Information about meetings and contacts is available in the Department of Nursing at the Rochester and Winona campuses.
- Undergraduate Nursing Clubs: The membership includes all who are in the Baccalaureate Nursing program, with separate clubs on the Winona
and Rochester campuses. These clubs 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 Sigma Theta Tau International Honor Society of Nursing recognizes superior achievement, helps its members develop leadership qualities and high professional standards, and encourages creative work. Membership in the Kappa Mu Chapter is by invitation and includes students and nurses in southeast Minnesota.


## 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 Department of Nursing. Students in the Honors in Nursing Program work closely with faculty advisors to pursue research or clinical projects. Students interested in the Honors in Nursing Program should contact their nursing faculty advisor. More information about the Honors in Nursing Program is available at this website:-
http://www.winona.edu/nursing/files/UNDERGRADnursing.pdf
To graduate with Honors in Nursing, a student must:

1. Have an overall GPA of 3.6.
2. Have a WSU nursing GPA of 3.6.
3. Complete a scholarly paper detailing the Honors project.
4. Present the project to WSU peers and faculty.

Upon graduation, students who successfully complete the Honors in Nursing Program will have:

1. Their official transcripts stamped with the words, "Graduated with Honors in Nursing"
2. Their graduation status (Honors in Nursing) indicated on the graduation program.

## 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. Follow the ethical responsibilities as outlined in the Handbook for Undergraduate Nursing Students.
3. 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.
"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."
4. 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 cost of professional liability insurance will be an automatic fee, which the student incurs upon admission to the nursing major.
5. Maintain a level of health that does not interfere with the student's ability to function adequately and safely in the nursing major and possess essential functional abilities in order to provide safe and effective client care as reflected in the Functional Abilities Essential for Continuance in the WSU Nursing Program. The student is expected to seek appropriate professional assistance as needed. The faculty may recommend assistance, a leave of absence, and/ or withdrawal from the program. If a student believes that he or she cannot meet one or more of the standards without accommodations, the nursing program in conjunction with WSU Disability Services must determine, on an individual basis, whether a reasonable accommodation can be made.
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## Functional Abilities Essential for Progression in the WSU Nursing Program

| Functional Ability | Standard | Examples of Required Activities |
| :---: | :---: | :---: |
| Motor Abilities | Physical abilities and mobility sufficient to execute gross motor skills, physical endurance, and strength to provide patient care. | Mobility sufficient to carry out patient care procedures such as assisting with ambulation of clients, administering CPR, assisting with turning and lifting patients, providing care in confined spaces such as a treatment room or operating suite. |
| Manual Dexterity | Demonstrate fine motor skills sufficient for providing safe nursing care. | Motor skills sufficient to handle small equipment such as insulin syringe and administer medications by all routes, perform tracheotomy suctioning, and insert urinary catheter. |
| Perceptual/ <br> Sensory <br> Ability | Sensory/perceptual ability to monitor and assess clients. | - Sensory abilities sufficient to hear alarms, auscultatory sounds, cries for help, etc. <br> - Visual acuity to read calibrations on 1 cc syringe, assess color (cyanosis, pallor, etc). <br> - Tactile ability to feel pulses, temperature, palpate veins, etc. <br> - Olfactory ability to detect smoke or noxious odor, etc. |
| Behavioral/ <br> Interpersonal/ <br> Emotional | - Ability to relate to colleagues, staff, and patients with honesty, integrity, and nondiscrimination. <br> - Capacity for development of mature, sensitive and effective therapeutic relationships. <br> - Interpersonal abilities sufficient for interaction with individuals, families, and groups from various social, emotional, cultural, and intellectual backgrounds. <br> - Ability to work constructively in stressful and changing environments with the ability to modify behavior in response to constructive criticism. <br> - Capacity to demonstrate ethical behavior, including adherence to the professional nursing and student honor codes. | - Establishes rapport with patients/clients and colleagues. <br> - Works with teams and workgroups. <br> - Emotional skills sufficient to remain calm in an emergency situation. <br> - Behavioral skills sufficient to demonstrate the exercise of good judgment and prompt completion of all responsibilities attendant to the diagnosis and care of clients. <br> - Adapts rapidly to environmental changes and multiple task demands. <br> - Maintains behavioral decorum in stressful situations. |
| Safe environment for patients, families, and co-workers | Ability to accurately identify patients. <br> - Ability to communicate effectively with other caregivers. <br> - Ability to administer medications safely and accurately. <br> - Ability to operate equipment safely in the clinical area. <br> - Ability to recognize and minimize hazards that could increase healthcare associated infections. <br> - Ability to recognize and minimize accident hazards in the clinical setting including hazards that contribute to patient, family and co-worker falls. | - Prioritizes tasks to ensure patient safety and standard of care. <br> - Maintains adequate concentration and attention in patient care settings. <br> - Seeks assistance when clinical situation requires a higher level or expertise/ experience. <br> - Responds to monitor alarms, emergency signals, call bells from patients, and orders in a rapid and effective manner. |
| Communication | Ability to communicate in English with accuracy, clarity, and efficiency with patients, their families, and other members of the health care team (including spoken and non-verbal communication, such as interpretation of facial expressions, affect, and body language). <br> - Required communication abilities, including speech, hearing, reading, writing, language skills, and computer literacy. | - Gives verbal directions to or follows verbal directions from other members of the health care team and participates in health care team discussions of patient care. <br> - Elicits and records information about health history, current health state, and responses to treatment from patients or family members. <br> - Conveys information to clients and others as necessary to teach, direct, and counsel individuals in an accurate, effective, and timely manner. <br> - Establishes and maintain effective working relations with patients and coworkers. <br> - Recognizes and reports critical patient information to other caregivers. |


| Cognitive/ <br> Conceptual/ <br> Quantitative <br> Abilities | - | Ability to read and understand written <br> documents in English and solve prob- <br> lems involving measurement, calcula- <br> tion, reasoning, analysis, and synthesis. |
| :--- | :--- | :--- |
| - | Ability to gather data, to develop a plan <br> of action, establish priorities, and moni- <br> tor and evaluate treatment plans and <br> modalities. |  |
| Ability to comprehend three-dimen- <br> sional and spatial relationships. |  |  |
| -Ability to react effectively in an emer- <br> gency situation. <br> work habits | -Ability to adhere to WSU policies, pro- <br> cedures and requirements as described <br> in the Student Nurse Handbook, col- <br> lege catalog, student handbook, and <br> course syllabus. |  |
| -Ability to complete classroom and <br> clinical assignments and submit assign- <br> ments at the required time. |  |  |
| -Ability to adhere to classroom and <br> clinical schedules. |  |  |

- Calculates appropriate medication dosage given specific patient parameters.
- Analyzes and synthesizes data and develops an appropriate plan of care.
- Collects data, prioritizes needs, and anticipates reactions.
- Comprehends spatial relationships adequate to properly administer injections, start intravenous lines, or assess wounds of varying depths.
- Recognizes an emergency situation and responds effectively to safeguard the patient and other caregivers.
- Transfers knowledge from one situation to another.
- Accurately processes information on medication container, physicians' orders, and monitor and equipment calibrations, printed documents, flow sheets, graphic sheets, medication administration records, and other medical records and policy and procedure manuals.
- Attends class and completes clinical assignments punctually.
- Reads, understands, and adheres to all policies related to classroom and clinical experiences.
- Contacts instructor in advance of any absence or late arrival.
- Understands and completes classroom and clinical assignments by due date and time.


## 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 Life and Development 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 and Functional Abilities Essential for Progression in the WSU Nursing Program.
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 Baccalaureate Nursing students) or the RN Coordinator (for Baccalaureate RN Completion 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 Coordinator (for Baccalaureate RN Completion 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 Baccalaureate Nursing students) or the RN Coordinator (for Baccalaureate RN Completion 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 Baccalaureate Nursing program and the Baccalaureate RN Completion program. 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. For the Baccalaureate RN Completion nursing major, WSU counts up to 90 transfer credits from accredited two- or four-year institutions towards a student's four-year Bachelor degree. With departmental approval, credits are also accepted from certain other schools and programs.
A total of 120 semester credits are needed to graduate with a baccalaureate degree from WSU. At least 40 of the 120 credits must be at the 300- and 400 -level. Also, at least 30 of the 120 credits needed for graduation must be earned at WSU. Twenty-eight credits in nursing fulfill the majority of the upper-division credit requirement and almost all the resident credit requirement. Students will need 12 additional 300-or 400-level credits (WSU or transfer credits) and two additional earned credits from WSU. The two additional credits from WSU may be 300- or 400-level credits and can also apply toward the 40 -credit upper-division requirement.

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 23 .

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$$

## 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，Baccalaureate 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／．

## UNVVERSITY 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（m）
NURS 454 Leadership in Professional Practice（4）
NURS 491 Professional Development（3）
Math／Critical Analysis（fo）
NURS 354 Leadership in Research and Evidence－Based Practice（3）
NURS 375 Evidence－Based Research（3）

## BS MAJOR－NURSING（NUGE；NURN）

## 97－100 S．H．（No Minor Required）

Note：All courses must be taken for a letter grade

## PREREQUISITES／REQUIRED COURSES 38－41 S．H．

NATURAL SCIENCE 19－22 S．H．

| Biology－BIOL（14 S．H．） |  |
| :---: | :---: |
| 206 | Normal Nutrition（3）OR HERS 205 Nutrition for Lifetime Wellness（3） |
| 209 M | Microbiology（3） |
| ＊ 211 A | Anatomy and Physiology I（4） |
| ＊ 212 A | Anatomy and Physiology II（4） |
| Chemistry－CHEM（5－8 S．H．） |  |
| 210 | Chemistry for Health Sciences（5）OR |
| ＊212（4），${ }^{\text {＊2 }}$（13（4）Principles of Chemistry I and II |  |
| SOCIAL SCIENCE 12 S．H． |  |
| Psychology－PSY（6 S．H．） |  |
| 210 I | Introduction to Psychological Science（3） |
| ＊ 250 D | Developmental Psychology（3） |
| Sociology－SOC（6 S．H．） |  |
| ＊ 150 I | Introduction to Sociology（3） |
| 212 | The Family（3） |
| OTHER REQUIRED COURSES 7 S．H． |  |
| English－ENG（4 S．H．） |  |
| 111 C | College Reading and Writing（4） |
| Statistics（3 S．H．） |  |
| STAT 110 | 110 Fundamentals of Statistics（3）OR |
| STAT | 305 Biometry（3）OR |
| 时 PSY | 231 Statistics（3）Note：This course does not fulfill a mathematics requirement for University Studies Program（USP）． |
| NURSING ELECTIVES（100－200 LEVEL） |  |
| 120 I | Introduction to the Health Professions（3）（USP－Contemporary Citizenship） |
| 260 | Women＇s Health Issues（3）（USP—Contemporary Citizenship） |
| NURSING ELECTIVES－NURS（300－400 LEVEL） |  |
| 325 | Transcultural Issues in Health Care（3）（USP－Multicultural Perspectives） |
| 327 I | Introduction to Public Health（3） |
| 360 P | Pharmacology（2）（for Baccalaureate RN Completion only） |
| 366 P | Pathophysiology（3）（for Baccalaureate RN Completion only） |
| 382 A | A London Nursing History Tour（2） |
| 392 C | Cardiac Risk Prevention（3）（USP－Critical Analysis） |
| 399 S | Skills for Professional Success（2） |
| 401 Sp | Spirituality in Nursing（2） |
| 402 | Clinical Pharmacology（3）（RN－to－MS Professional Pathway） |
| 404 | Advanced Pathophysiology（3）（RN－to－MS Professional Pathway） |
| 406 P | Psychosocial Interventions in Family Care（2）（RN－to－MS |

206（3） Wellness（3）
＊ 211 Anatomy and Physiology I（4）
＊ 212 Anatomy and Physiology II（4）
Chemistry－CHEM（5－8 S．H．）

SOCIAL SCIENCE 12 S．H．

## Psychology－PSY（6 S．H．）

210 Introduction to Psychological Science（3）
＊ 250 Developmental Psychology（3）
Sociology－SOC（6 S．H．）
＊ 150 Introduction to Sociology（3）
The Family（3）
OTHER REQUIRED COURSES 7 S．H．
nglish－ENG（4 S．H．）
111 College Reading and Writing（4）
tatistics（3 S．H．）
STAT 305 Biometry（3）OR mathematics requirement for University Studies Program（USP）

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NURSING ELECTIVES (100-200 LEVEL)Citizenship
60 Women＇s Health Issues（3）（USP－Contemporary Citizenship）
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## NURSING ELECTIVES－NURS（300－400 LEVEL）

3270
366 Pat
A London Nursing History Tour（2）
392 Cardiac Risk Prevention（3）（USP－Critical Analysis）
Skills for Professional Success（2）
Spirituality in Nursing（2）

406 Psychosocial Interventions in Family Care（2）（RN－to－MS Professional Pathway）

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Writing (&)
    NURS 353 Professional Practice II (5)
    NURS 443 Professional Practice III (5)
    NURS 445 Evidence-Based Leadership and Management (3)
    NURS 475 Community Health Nursing (4)
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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
408 Advanced Role Seminar（2）（RN－to－MS Professional Pathway）
410 Theoretical Foundations and Research for Advanced Nursing Practice（4）
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）
m419 Advanced Health Promotion（3）（RN－to－MS Professional Pathway）
432 Principles of Perioperative 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）
498 Advanced Critical and Progressive Care Nursing（2）（Registered Nurses only）

## BS MAJOR－BACCALAUREATE NURSING

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

## REQUIRED COURSES－NURS

341 Nursing Skills \＆Assessment（4）
343 Professional Practice I（5）
344 Leadership in Basic Nursing Practice（2）
352 Caring for the Older Adult（3）
巴 353 Professional Practice II（5）
甠 354 Leadership in Research and Evidence－Based Practice（3）
358 Psychosocial Adaptation（3）
360 Pharmacology（2）
366 Pathophysiology（3）
421 Nursing care of the Childbearing Family（2）
422 Nursing care of the Childrearing Family（2）
426 Clinical Prevention and Population Health I（2）
427 Clinical Prevention and Population Health II－Public Health（2）
『 443 Professional Practice III（5）
444 Leadership in Contemporary Health Care Settings（2）
446 High Acuity／Progressive Care（3）
453 Professional Practice IV（5）
wh 454 Leadership in Professional Practice（4）
458 Complex Mental Health（2）
BS MAJOR－NURSING：BACCALAUREATE RN COMPLETION
（NURN）
52 S．H．（Required courses must be taken for a letter grade．）
Note：Includes 24 S．H．of nursing in transfer or exam．

## REOUIRED COURSES - NURS

旳 375 Evidence-Based Research (3)
415 Holistic Caring (4)
435 Holistic Assessment (3)
B 445 Evidence-Based Leadership and Management (3)
455 Continuity of Care (4)
465 Population-Based Care (4)
B. 475 Community Health Nursing (4)
*391 Professional Development (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.
302 - CNAT: Care of the Adult Client (6 S.H.) (Baccalaureate RN Completion)
Demonstration of knowledge through an exam focusing on the nursing care of clients in a variety of settings and at various stages of the wellnessillness 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.) (Baccalaureate RN Completion)

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.) (Baccalaureate RN Completion)
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.
(Baccalaureate RN Completion)
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.

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 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.

## 341 - Skills \& Assessment (4 S.H.)

Develops the knowledge and skills necessary for nursing care of individuals, families and communities in professional nursing practice. Prerequisite: Admission to the Baccalaureate Nursing program. Pre/Corequisite: NURS 343.

343 - Professional Practice (5 S.H. - 2 S.H. Theory; 2 S.H. Practicum)
Provides an introduction to the profession of nursing in the context of foundational concepts important to medical-surgical nursing. Focus is on developing knowledge, beginning clinical judgment skills, and application of therapeutic interventions for adult patients and their families in acute care settings. Prerequisite: Admission to the Baccalaureate Nursing program. Pre/ Corequisites: NURS 341, NURS 344, NURS 360, and NURS 366.

344 - Leadership in Basic Nursing Practice (2 S.H.)
Explores professional values, ethics, standards and leadership development of nurses. After successful completion of this course, students will articulate
their professional nursing philosophy. Prerequisite: Admission to the Baccalaureate Nursing program. Corequisite: NURS 343.

352 - Caring for the Older Adult (3 S.H. - 2 S.H. Theory; 1 S.H. Practicum)
Examines the complexity of elder care, including factors contributing to longevity and health in old age as well as genetic predisposition, lifestyle, culture, and environment. Prerequisites: NURS 341, NURS 343, NURS 344, NURS 353, NURS 354, NURS 358, NURS 360, and NURS 366, or instructor's permission.

353 - Professional Practice II (5 S.H. - 2 S.H. Theory; 3 S.H. Practicum) Focus will be on continued development of content knowledge, critical thinking, clinical reasoning, and clinical judgment skills. Emphasis will be on effective communication skills and application of therapeutic interventions that address the needs of a diverse adult patient population in acute care settings. Prerequisites: NURS 341, NURS 343, NURS 344, NURS 353, NURS 354, NURS 358, NURS 360, and NURS 366.

354 - Leadership in Research and Evidence-Based Practice (3 S.H.) Explores research concepts and their use in evidence-based practice improvements. Students will analyze, critique, and interpret research evidence and collaborate in the improvement processes in health care settings. Prerequisites: NURS 343, NURS 344, and STAT 305, STAT 110, or PSY 231.

358 - Psychosocial Adaptation (3 S.H.)
Explores the interaction of psychological, social, and cultural factors in how individuals respond to life events such as illness, loss, and grief. Prerequisites: NURS 343, NURS 344, or instructor's permission.

## 360 - Pharmacology (2 S.H.)

Introduces the fundamental principles of pharmacology, pharmacokinetics, pharmacodynamics, pharmacotherapy, adverse drug reactions, major drug classes, and related implications for individuals receiving drugs. Nursing students will incorporate various systems of measurement, conversion between systems, and calculation of drug dosage and rates. Prerequisite: Baccalaureate Nursing program, HERS major, elective for Baccalaureate RN Completion, or instructor's permission. Corequisite: NURS 343.

361 - Pharmacology for Non-Nursing Majors (1 S.H.)
Introduces the fundamental principles of pharmacology, pharmacokinetics, pharmacodynamics, pharmacotherapy, adverse drug reactions, major drug classes, and related implications for individuals receiving drugs. This 1-S.H. pharmacology course is available for non-nursing majors only.

## 366 - Pathophysiology (3 S.H.)

Focuses on the systematic study of the functional changes in cells, tissues, and organs altered by disease and/or injury and the effects that these changes have on the total body function. Pathophysiology will also focus on the mechanisms of the underlying disease thereby providing the background for preventive as well as therapeutic health care measures and practices. Knowledge of anatomy and physiology and various organ systems of the body is an essential foundation for this course. Students will gain scientifically based knowledge needed to make sound clinical observations as well as the rationale health professionals provide for their actions in practice. Understanding of disease requires both descriptive evidence and an evaluative component in which students begin to take into account the complex interactions among the body, mind, culture, and spirit. Prerequisites: BIOL 211 and BIOL 212 or instructor's permission. HERS prerequisite: HERS 340. Pre/Corequisite: NURS 343.

## 375-Evidence-based Research (3 S.H.) (RN Baccalaureate Completion

 Program)Basic elements of the research process and models for applying evidence to clinical practice are introduced. The application of retrieval, appraisal, synthesis and evidence to improve patient outcomes is emphasized. Cooperative group work is integrated throughout the course.

## 382 - A London Nursing History Tour (2 S.H.)

This travel program is an experiential enrichment course that provides nursing students with an opportunity to study nursing history and to compare nursing education programs and health care delivery systems of the United States and the United Kingdom. Students will also have the opportunity for historical sightseeing and museum tours. Prerequisite: Instructor's permission; NURS 444 recommended. P/NC option.

392 - Cardiac Risk Prevention (3 S.H.) (Elective)
This course is 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. Prerequisites or corequisite: Anatomy and physiology course; instructor's permission. P/NC option.

399 - Skills for Professional Success (2 S.H.) (Elective)
This course helps the student learn what he/she needs to know to live a successful and harmonious life as a person working in a professional career.

$$
\text { = Oral Flag } \quad \text { 时= Math/Critical Analysis Flag } \quad \text { B = Writing Flag }
$$

The coursework focuses 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.

## 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.
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 decisionmaking, 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. Prerequisites: NURS 411, NURS 423, and senior standing or instructor's permission. P/NC option.

## 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 (4 S.H.) (Baccalaureate RN Completion)
This course serves to assist in the transition of Baccalaureate RN Completion students as they build on their prior basic nursing education and identify with the baccalaureate nursing major. The student is introduced to the Winona State University Department of Nursing curriculum/ organizing framework, which serves as the base upon which to build their future career in nursing. Evidence-based teaching-learning theory and skills will provide the basis for teaching health promotion to a young learner population. Analysis of a political issue related to health care delivery will foster an appreciation of the political process within the baccalaureate role as a nurse. Holistic caring is related to critical thinking, teaching-learning, role development, and nursing practice. By applying critical thinking skills to holistic caring, this course will help the Baccalaureate RN Completion student gain insight into the professionalism and professional values associated with this baccalaureate degree.

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 Microsoft ${ }^{\oplus}$ Windows, 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.-2 S.H. Seminar; 1 S.H. Clinical) (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. Prerequisite: Admission to the graduate program in nursing or instructor's permission and NURS 410. Grade only.

421 - Nursing Care of the Childbearing Family (2 S.H.)
Explores evidence-based practices dealing with sexuality; reproductive health promotion; and perinatal health for individuals, families, and populations across health care settings. Prerequisite: NURS 353 or instructor's permission.

## 422 - Nursing Care of the Childrearing Family (2 S.H.)

Explores evidence-based practices dealing with child growth and development as well as patient-centered care for children and their families and for populations across health care settings. Prerequisite: NURS 353 or instructor's permission.
426 - Clinical Prevention and Population Health I (2 S.H.) Explores the principles and practices necessary for integrating clinical prevention and population health into nursing practice. Successful completion of this course means students will be able to provide health care activities that contribute to decreasing morbidity and mortality and improve quality of life in a diverse society. Prerequisite: NURS 353 or instructor's permission. Pre/Corequisites: NURS 421, NURS 422, NURS 443, and NURS 446.

## 427-Clinical Prevention and Population Health II-Public Health (2 S.H.)

Integrates the principles and practices of clinical prevention and population health into nursing practice. Successful completion of this course means students will be able to develop and provide health care activities that are congruent with beginner levels of public health nursing competencies.
Prerequisites: NURS 426, NURS 443, or instructor's permission. Pre/ Corequisite: NURS 453.

432 - Principles of Perioperative 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. Prerequisites: NURS 300 and NURS 301 or instructor's permission. $\mathrm{P} / \mathrm{NC}$ option.
435 - Holistic Assessment (3 S.H.) (Baccalaureate RN Completion) Course builds on theoretical concepts, critical thinking, decision-making, and application of clinical skills. Students will be responsible for self-management of completing learning activities. Emphasis will be on the knowledge and skills necessary to perform a holistic assessment of individuals across the lifespan. An online learning library is used to understand and apply assessment content.

## 443 - Professional Practice III (5 S.H.)

Focuses on provision of nursing care to childbearing and childrearing families, adults, and those with mental illness in a variety of settings. Emphasizes evidence-based practices, clinical prevention, and population health. Prerequisite: NURS 353. Pre/Corequisites: NURS 421, NURS 422, NURS 426, and NURS 444.

444 - Leadership in Contemporary Health Care Settings (2 S.H.)
Explores leadership and management in nursing practice focusing on health care policy and systems. Prerequisites: NURS 344, NURS 353, NURS 354, or instructor's permission.
445 - Evidence-Based Leadership and Management (3 S.H.)

## (Baccalaureate RN Completion)

This course fosters heightened awareness of management and leadership theory within the essence of baccalaureate professional role development and the practice of nursing. Change theory applied to a nursing situation assists in the future application of this complex concept. An appreciation of complex organizational structure will promote successful employment of management and leadership skills with emphasis on evaluation and quality control. Use of small group process facilitates planning a professional nursing conference and developing a nursing marketing project.
446 - High Acuity/Progressive Care (3 S.H. - 2 S.H. Theory; 1 S.H. Practicum)
Focuses on patient problems beyond uncomplicated acute illness on a healthillness continuum. Emphasis is on a generalist knowledge base that is needed by all nurses who work with patients experiencing complex care problems, irrespective of setting, to assure competent and safe nursing practice and positive patient outcomes. The goal is to approach patient care conceptually, adapting and applying knowledge as appropriate to professional practice. Prerequisites: NURS 352, NURS 353, NURS 354, NURS 358, or instructor's permission. Pre/Corequisites: NURS 421, NURS 422, NURS 426, NURS 443, and NURS 444.
453 - Professional Practice IV (5 S.H.)
Focuses on the development and provision of nursing care to childbearing and childrearing families, adults, and those with mental illness in a variety of settings. Emphasizes evidence-based practices, clinical prevention, and population health. Prerequisite: NURS 443. Pre/Corequisite: NURS 458; Corequisites: NURS 427 and NURS 454.
454 - Leadership in Professional Practice (4 S.H.)
Synthesis course encapsulating the essence of the baccalaureate nursing role. Upon successful completion of this course, students will provide evidencebased quality and safe nursing care; they will collaborate and contribute to improve systems and patient outcomes. Prerequisites: NURS 421, NURS 422, NURS 426, NURS 443, NURS 444, and NURS 446. Corequisites: NURS 427, NURS 543, NURS 454, and NURS 458.
455 - Continuity of Care (4 S.H.) (Baccalaureate RN Completion)
This course explores complex continuity of care issues involving the individual, family, and/or community. The content will assist the student to perceive the significance of professional evidence-based nursing interventions related to specific situations and/or populations. Some of the diverse situations include self-care, stress management, experience of loss, and novice to expert. Some of the diverse populations include elderly, dementia, end-of-life issues, mental illness, and cultural diversity. Evidenced-based teaching-learning theory and skills are applied to the adult learner population.

## 458 - Complex Mental Health Care (2 S.H.)

Focuses on professional mental health nursing roles implemented through caring constructs, communication skills, and therapeutic milieu. Explores evidence-based practices dealing with mental health needs in various settings.

Prerequisite: NURS 358 or instructor's permission. Pre/Corequisite: NURS 443.

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 - Population-Based Care (4 S.H.) (Baccalaureate RN Completion) This course focuses on evidence-based health promotion interventions to populations. Students are expected to provide competent care by using high ethical standards and critical thinking. Students will elaborate on prior teaching/learning principles in developing a sophisticated health promotion teaching tool. Students engage with the community to learn from families and other aggregates in the community how they define and promote their own health. Students will appraise and critique their professional portfolio.

## 475 - Community Health Nursing (4 S.H.) (Baccalaureate RN

 Completion)Focuses on assessment and evidence-based practices to assess protective and predictive factors that influence the health of individuals, families, groups, communities, and populations. Health promotion and specific disease preventions, early diagnosis and treatment, and managing the disease or problem to maximize health are discussed. Public health concepts are introduced along with population-focused interventions.

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.

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 - Professional Development (3 S.H.) (Baccalaureate RN Completion)
This course synthesizes all previous courses and past learning experiences through intense site-based experience designed to encapsulate the essence of baccalaureate professional role development. From the past, the present is formed. With this course the student forms a new vision of the future. It includes application of theory and role development as a professional nurse. This course should lead the student to the completion of the Winona State University Department of Nursing Baccalaureate Program Outcomes.

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. Jamaican experts will present on a variety of topics which influence health care including economics, politics, culture, and society. Prerequisites: 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 as they pertain to 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.

498 - Advanced Critical and Progressive Care Nursing (2 S.H.) (Elective for Registered Nurses Only)
This course is specifically designed for Registered Nurses currently caring for adults in critical or progressive/acute care nursing units. Course content is designed to meet knowledge requirements for practice and/or certification
in critical care or progressive care nursing and as such, promotes continuing excellence in the nursing profession. Course content will be based on topic and certification blueprints established by the American Association of Critical-Care Nurses (AACN) Certification Corporation. The emphasis of learning activities will (1) address clinical judgment in the eight major categories including cardiovascular, pulmonary, endocrine, hematology/ immunology, neurology, gastrointestinal, renal, and multisystem; and (2) explore concepts of professional caring and ethical practice in nursing. National certification exam is an option for specific sections of the course. Offered spring semester. Grade or P/NC option.

## PARALEGAL

Minné Hall, Room 212 (507-457-5400)
Kurt Hohenstein (Program Director)

## FACULTY

Kurt Hohenstein, Associate Professor; BA, JD, MA, University of Nebraska; PhD, 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 nonprofit agencies. 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 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 or transfer into 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 - Recommended Electives for Specialization and/or Minor: In Phase III, students choose to complete the requirements of the Paralegal Program, including an additional 35 semester hours in a variety of law-related courses from various disciplines. A student may elect to complete a minor of her/his choice in addition to completing the first two phases of the program, which will reduce the law-related electives accordingly.

## ADDITIONAL COURSE AND GPA REQUIREMENTS

- Students are required to have substantially completed their University Studies requirements and Phase II requirements before they enroll in the Legal Specialty courses. 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 23.

## 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.

## BS MAJOR- PARALEGAL (PLG)

120 S.H.
CORE REQUIREMENTS
I. INTERDISCIPLINARY FOUNDATIONS ( 27 S.H.)

235 History of the American Indian (3)
m 315 Women in U.S. History (3)

History - HIST (12 S.H.)
355 European Intellectual and Cultural History (3)

* 150 U.S. History to 1865 (3)
* 151 U.S. History Since 1865 (3)
ß 365 American Legal History (3)** OR
巴 488 American Constitutional History** (3)
One of the following - HIST:
220 Introduction to African American History (3)

120 Intro to American Politics (3)
320 Constitutional Law (3)
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 - HIST (29 S.H.)
\& 370 Legal Research and Writing I (3)
371 Substantive Law and Ethics I (2)
时 372 Legal Research and Writing II (3)
373 Adversary Systems: Civil Procedure (2)
374 Evidentiary Rules (2)
375 Substantive Law \& Ethics II (3)
376 Adversary Systems: Criminal Procedure (2)
380 Paralegal Internship (12)
ELECTIVES
32 S.H. of approved electives, with or without a minor Courses approved by Paralegal Program Director and academic advisor.

## COURSE DESCRIPTIONS - HIST

211- Introduction to Paralegalism and Ethics (2 S.H.)
This course will introduce paralegal majors to the practice of paralegalism and the legal ethics related to that practice. The course will examine the paralegal profession, the best practices of paralegalism, office machinery, techniques and advanced practice software, office management, the role of the paralegal in legal practice, and the nature and responsibilities of legal ethics for the paralegal. Students not enrolled in the Paralegal Program need the program director's permission to enroll in this course and must meet prerequisite requirements of the program. Grade Only. (Suggested enrollment during spring semester of sophomore year.)

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; and 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, and 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, and 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.
Prerequisite: 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 (2-3 S.H.)
Students will learn about more specialized substantive law topics such as immigration law, bankruptcy law, intellectual property law, and others that may not demand a full semester offering. The course will supplement HIST 371 and HIST 375 (Substantive Law and Ethics I and II), which are required offerings currently listed in the Paralegal major as electives, allowing students to experience a broader base of substantive knowledge. These courses will be offered on an as-needed basis permitting maximum flexibility in scheduling for special paralegal topics. Grade Only. Offered each semester as needed.

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
Kevin Possin (Chairperson)
FACULTY
Kevin Possin, Professor; BA, Southwest State University; PhD, University of Wisconsin-Madison; 1990 -
Edward Slowik, Professor; BA, University of Illinois at Chicago; MA, PhD, 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 (PNC) COURSES

Students must take all courses for the minor on a grade-only basis. The $\mathrm{P} / \mathrm{NC}$ 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.
176 m Oral Flag $\quad$ 时 = Math/Critical Analysis Flag $\quad$ = Writing Flag

BA MINOR - PHILLOSOPHY (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:
130 Moral Problems (3)
220 Philosophy of Democracy (3)
230 Moral Theory (3)
330 Biomedical Ethics (3)
332 Philosophy of Law (3)
335 Constitutional Philosophy (3)
340 Just-War Tradition (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 students 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 or not 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, and 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.

## 290 - Introduction to War, Peace, and Terrorism (3 S.H.)

An introductory course exploring issues concerning war, peace, and terrorism from the perspectives of moral and political philosophy. Guest speakers present points of view. Topics usually include causes and justifications of war, conditions for peace, and whether terrorism is ever justified. Further topics may include conscientious objection, varieties of pacifism and nonviolent resistance, land mines, child soldiers, suicide terrorists, mercenaries, genocide, and international arms sales. Offered yearly.

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 17 th 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, and 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.

## 341 - Just-War Tradition (3 S.H.)

At the junction of ethics, philosophy of law, and political philosophy, this course investigates the just-war tradition and its modern application in the acts and laws of war. Topics may include historical developments in just-war tradition, conditions for just-war and just-fighting, preventive war, humanitarian military intervention, nuclear weapons, guerrilla warfare, terrorism and counter-terrorism, and treatment of terrorist suspects. 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 SPORT SCIENCE 

Memorial Hall, Room 122 (507-457-5202; Fax: 507-457-5606)
Douglas Callahan (Chairperson)

## FACULTY

Douglas Callahan, Professor; BS, MA, University of Denver; PhD, University of Kansas, 2000 -
Chad Grabau, Assistant Professor; BS, MS, University of Wisconsin-La Crosse; 2009 -
Stephen Juaire, Professor; BS, MS, Winona State University; PhD, Florida State University; 1975 -
Michael Leaf, Associate Professor, Men's Basketball Head Coach; BA, St. Mary's College of Minnesota; BS, MA, MS, Winona State University; 1987 -
Tom Sawyer, Associate Professor, Football Coach; BS, MS, Winona State University; 1996 -
Don Wistrcill, Assistant Professor; BS, MS, Winona State University; 1990 -

## PURPOSE

The Department of Physical Education and Sport Science (PESS) exists within the College of Education. Through traditional methods, the faculty prepare majors to become physical education teachers and coaches. The physical education major leads to a Bachelor of Science (teaching) degree. In addition, the department offers numerous physical education courses that fulfill the 2-semester hour University Studies requirement for Physical Development and Wellness.

## CAREER OPPORTUNITIES

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 physical education licensure with the physical education major.

## DEPARTMENT PROGRAMS

- BS Major: Physical Education (Teaching)
- BS Minor: Coaching
- Developmental Adapted Physical Education Licensure


## PASS/NO CREDIT (P/NC) COURSES

Students majoring or minoring in PESS programs must take all courses in the major, minor, and options on a grade-only basis except for PESS 190, which is a P/NC-Only course. 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.

## BS MAJOR - PHYSICAL EDUCATION (Teaching) (PPET) <br> 49 S.H. (No minor required)

Note: When this catalog went to print, all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact your program advisor and refer to the Teacher Education Addendum (www.winona.edu/education/advising) for the latest information about program requirements whether you are (1) applying to a teacher education program, (2) currently enrolled in a teacher education program, or (3) expecting to graduate with a teacher education degree in 2010 or 2011.

## PROFESSIONAL EDUCATION SEQUENCE

Teaching majors must take all courses in the Professional Education Sequence in addition to courses in the content area. 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 2.50 GPA in the major. Students can expand their career options by taking dual majors, minors, adapted physical education licensure, or a coaching minor.

Refer to the "Teacher Education Programs" section of this catalog (page 214) for the list of courses in the Professional Education Sequence for your teaching degree program.

## REQURED PHYSICAL EDUCATION

## Theory Courses - PESS (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 - PESS (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 - PESS (1 S.H.)
123 Swimming \& Water Safety (1) OR
124 Water Safety Instructor (2) OR
125 Lifeguard Training (2)
Biology - BIOL (8 S.H.)

* 211 Anatomy and Physiology I (4)
* 212 Anatomy and Physiology II (4)

Health, Exercise and Rehabilitative Sciences - HERS (6 S.H.)
314 Anatomical Kinesiology (3)
340 Physiology of Exercise (4) (See Note below.)
Statistics - STAT (3 S.H.)
110 Foundations of Statistics (3)

## Notes:

1. Students must earn a grade of "C" or better in BIOL 211 and BIOL 212 to be eligible to enroll in HERS 340.
2. Additional Consideration: To be eligible for student teaching, students must earn a grade of "C" or better in the following courses: PESS 129, 205, 206, 317, and 402.

## DEVELOPMENTALADAPTED 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 nine semester hours 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)

$$
\text { m Oral Flag } \quad \text { 时 = Math/Critical Analysis Flag } \quad \text { B }=\text { Writing Flag }
$$

3. Complete the physical education teacher preparation program, which consists of 46 semester hours.
4. Complete the D/APE licensure course requirements not included in the physical education major: PESS 331 Perceptual Motor Development (2) and PESS 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 Physical Education \& Sport Science, Adapted Physical Education, Memorial Hall, Winona State University, Winona, MN 55987.

## BS MINOR - COACHING (COAC)

22 S.H.

## REQUIRED COURSES

Physical Education - PESS (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 \& 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 PESS 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. PESS 251 is waived for students taking HERS 340.
2. PESS 300 is waived for physical education majors (part of the major curriculum).

## Additional Considerations:

- Prerequisites: PESS 235, PESS 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.


## COURSE DESCRIPTIONS - PESS <br> THEORY COURSES

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-PESS 130, PESS 132, or PESS 133. P/NC 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.

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: PESS 129, PESS 190, and at least two of these coursesPESS 130, PESS 132, or PESS 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. Prerequisites: PESS 129, PESS 190, and at least two of these courses-PESS 130, PESS 132, or PESS 133. 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. Prerequisite: 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. Prerequisite: PESS
205and PESS 206, or instructor's permission. 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. Prerequisite: PESS 317, 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: PESS 235, PESS 280, HERS 291, and current CPR/First Aid certification. 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- and 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 or Coaching (1-3 S.H.) Opportunity to work independently. Prerequisite: Junior or senior standing, preparation of proposed outline and major advisor's permission. Grade only.

417 - Special Topics in Physical Education 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: PESS 331, PESS 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 PHYSICAL EDUCATION 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 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 (2 S.H.)

Teaching methods for swimming, diving, basic water safety, and program
development. Culminates with Red Cross certification. Prerequisite: PESS 123 or demonstrated competency.

125 - Lifeguard Training (2 S.H.)
This course presents the knowledge and skills required of an American Red Cross certified lifeguard. Grade only.

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.

$$
137 \text { - Fencing (1 S.H.) }
$$

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/Wellness (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.

## PHYSICS

Pasteur Hall, Room 120 (507-457-5260)
www.winona.edu/physics
Frederick Otto (Chairperson)

## FACULTY

Andrew Ferstl, Associate Professor; BS, University of Wisconsin; PhD, University of Minnesota; 2000 -
David E. Hamerski, Professor; BS, St. Mary's College of Minnesota; MS, University of Minnesota-Twin Cities; PhD, Washington University (St. Louis, Missouri); 1961 -
Nathan Moore, Assistant Professor, BS, Grove City College; PhD, University of Minnesota; 2005 -
Frederick Otto, Professor; BA, BS, Humboldt State University; PhD, University of California-Berkeley; 1990 -
Richard H. Shields, Professor; BS, MS, Eastern Illinois University; PhD, University of Missouri-Rolla; 1973 -

$$
\text { = Oral Flag } \quad \text { 时 = Math/Critical Analysis Flag } \quad B=\text { Writing Flag }
$$

The Physics Department strives to serve the diverse set of learners throughout the community and the University by promoting scientific inquiry. The faculty endeavor to mentor all students to become lifelong learners and productive members of a sustainable, scientific, and technological society. In pursuit of this mission, the Physics Department:

- Provides a high quality post-secondary education in a field that is both challenging and rewarding.
- Creates a learning environment that helps students develop critical thinking and problem-solving skills.
- Serves as a scientific resource for the University and the community.
- Supports student and faculty research.


## WHY STUDY PHYSICS?

## Curiosity

If you answer "yes" to any of the following questions, physics might be the field of study for you:

- Are you interested in discovering how things work?
- Are you more interested in discovering how the same idea can explain a variety of different devices or problems, not just a single one?
- Are you more interested in finding exact quantitative explanations instead of being satisfied with generalities?


## Career Opportunities

Physics is sometimes referred to as the "liberal arts" degree of technology because physics majors can go into various careers including computer science, engineering, research and development, chemistry, and biology. Others refer to the bachelor's in physics as the "Swiss Army Knife" degree because of all the skills student acquire during their course of study. Because of the breadth of the physics discipline, physicists can be found serving in a broad range of seemingly disparate functions-from modeling the financial markets to creating their own companies. Some physicists go on to become lawyers, doctors, and engineers. Students majoring in physics learn to start with an ill-posed problem, formulate it quantitatively, solve it, and communicate the results clearly. These skills transfer readily to many fields. In short, a major in physics is a way to keep your options open.

Physics majors have a reputation for solid mathematical skills, strong problem-solving abilities, and good work ethic. These fundamental skills allow physics majors to work successfully in many different areas. An undergraduate degree in physics tells prospective employers that the graduate has what it takes to succeed.

## Student Benefits

Physics faculty believe that having students experience the process of science through the coursework and the culminating undergraduate research project is an invaluable learning experience. 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. 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. Successful completion of the physics research project enhances students' opportunities for admission to graduate school or for scientific employment following graduation.

## PROGRAMS

The Physics Department offers two options and two pathways to teacher certification:

- 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.
- Physics Teaching certifies graduates to teach high school physics and physical science for grades 9-12.
- Physical Science Teaching certifies graduates to teach high school physics, chemistry, and physical science for grades 9-12.


## 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. 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（m）
PHYS 460 Undergraduate Research（1－4）

## BS MAJOR－PHYSICS：OPTION I－PHYSICS（PHYP）

77 S．H．（No Minor Required）

## REQUIRED COURSES（71 S．H．）

Chemistry－CHEM（8 S．H．）
＊212，＊213 Principles of Chemistry I，II（8）
Mathematics－MATH（16 S．H．）
160， 165 Calculus I，II（8）
260 Multivariable Calculus（4）
270 Differential Equations（4）
Physics－PHYS（47 S．H．）
221，222， 223 University Physics I，II，III（12）
320 Computational Physics（2）
B． 330 Electronics（4）
B 340 Modern Physics（4）
解 345 Thermodynamics and Statistical Physics（4）
350 Mechanics（4）
® 370 Optics（4）
甠 430 Electromagnetic Theory I（3）
431 Electromagnetic Theory II（3）
451 Quantum Mechanics（3）
＊ 460 Undergraduate Research（4）
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）
420 Control Theory（3）
425 Physics of Semiconductors（3）
490 Individual Problems in Physics（1－3）
BS MAJOR－PHYSICS：OPTION II－ELECTRONICS（PHYE）
78 S．H．（No Minor Required）
REQUIRED COURSES（72 S．H．）
Chemistry－CHEM（8 S．H．）
＊212，＊213 Principles of 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）
Mathematics－MATH（16 S．H．）
160， 165 Calculus I，II（8）
260 Multivariable Calculus（4）
270 Differential Equations I（4）
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）
厄 340 Modern Physics（4）
420 Control Theory（3）
425 Physics of Semiconductors（3）
甠 430 Electromagnetic Theory I（3）
＊ 460 Undergraduate Research（4）
ELECTIVES－PHYS（6 S．H．）
329 Electrical Circuits II（4）
to 345 Thermodynamics and Statistical Physics（4）
350 Mechanics（4）
ß 370 Optics（4）
399 Internship（1－4）

Math／Critical Analysis（阿）
PHYS 345 Thermodynamics and Statistical Physics（4）
PHYS 430 Electromagnetic Theory I（3）
Writing（ B ）
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．

400 Seminar（1－4）
431 Electromagnetic Theory II（3）
451 Quantum Mechanics（3）
490 Individual Problems in Physics（1－3）
BS MINOR－PHYSICS（PHYS）
33 S．H．
REQUIRED COURSES（16 S．H．）
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.
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）
ELECTIVES（17 S．H．）
Physics－PHYS
223 University Physics III（4）
320 Computational Physics（2）
328 Electrical Circuits and Measurements I（4）
329 Electrical Circuits and Measurements II（4）
ß 330 Electronics（4）
332 Computer Organization（2）
333 Microprocessor Electronics（4）
® 340 Modern Physics（4）
解 345 Thermodynamics and Statistical Physics（4）
350 Mechanics（4）
ط 370 Optics（4）
400 Seminars（1－4）
420 Control Theory（3）
425 The Physics of Semiconductors（3）
解 430 Electromagnetic Theory I（3）
431 Electromagnetic Theory II（3）
440 Mathematical Methods in Physics I（3）
451 Quantum Mechanics（3）
＊／450 Undergraduate Research（4）
490 Individual Problems in Physics（1－3）

## BS MINOR－ELECTRONICS（ELTR）

33 S．H．

## REQUIRED COURSES（25 S．H．）

Mathematics－MATH（8 S．H．）
160， 165 Calculus I，II（8）
Note：Students not prepared to take MATH 160 should take MATH 120.
Physics－PHYS（17 S．H．）
201， 202 General Physics I，II（8）OR
221， 222 University Physics I，II（8）
ß 330 Electronics（4）
332 Computer Organization（2）
333 Microprocessor Electronics（3）
ELECTIVES（8 S．H．）
Physics－PHYS
223 University Physics III（4）
320 Computational Physics（2）
328 Electrical Circuits and Measurements I（4）
329 Electrical Circuits and Measurements II（4）
B 340 Modern Physics（4）
350 Mechanics（4）
B 370 Optics（4）
399 Internship（1－8）
420 Control Theory（3）

425 The Physics of Semiconductors (3)
Pu 430 Electromagnetic Theory I (3)
431 Electromagnetic Theory II (3)
440 Mathematical Methods in Physics I (3)
451 Quantum Mechanics (3)
*/460 Undergraduate Research (4)
490 Individual Problems in Physics (1-3)
BS MAJOR- PHYSICS (Teaching) (PPHS, PHST)

## 97-101 S.H. (No Minor Required)

Note: When this catalog went to print, all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact your program advisor and refer to the Teacher Education Addendum (www.winona.edu/education/advising) for the latest information about program requirements whether you are (1) applying to a teacher education program, (2) currently enrolled in a teacher education program, or (3) expecting to graduate with a teacher education degree in 2010 or 2011.

The Physics 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 BOTapproved degree.

Successful completion of the Physics Teaching program will enable a student to apply for licensure in 9-12 high school physics and physical science upon achieving passing scores on the Minnesota Teacher Licensure Examination (MTLE) basic skills, content, and pedagogy tests.

## REQUIRED COURSES (97-101 S.H.)

Chemistry - CHEM (14 S.H.)

* 212,*213 Principles of Chemistry I, II (8)

311 Science Teaching Methods (4)
312 Practical Considerations of Teaching Science (2)
Mathematics - MATH (12 S.H.)
160, 165 Calculus I, II (8)
270 Differential Equations I (4)
Physics - PHYS (36 S.H.)
221, 222, 223 University Physics I, II, III (12)
320 Computational Physics (2)
₹ 330 Electronics (4)
B 340 Modern Physics (4)
To 345 Thermodynamics and Statistical Physics (4)
350 Mechanics (4)
® 370 Optics (4)
*4 460 Undergraduate Research (2)

## PROFESSIONAL EDUCATIONAL SEQUENCE (35-39 S.H.)

Note: Teacher education majors must take all courses in the Professional Education Sequence in addition to courses in the content area. Refer to the
"Teacher Education Programs" section of this catalog (page 214) for more information.

```
Education - EDUC (4 S.H.)
    4 2 9 \text { Secondary Reading and Teaching Strategies (4)}
Educational Foundations, Research and Technology - EFRT(13 S. H.)
* 305 Human Development and Learning: Secondary (4)
* 308 Human Relations and Student Diversity (3)
to 312 Instructional Planning and Assessment: Secondary (3)
&2459 Professional Educator (3)
Education: Student Teaching - EDST (12-16 S.H.)
*/465 Student Teaching (12-16)
Health, Exercise and Rehabilitative Sciences - HERS (3 S.H.)
* 204 Personal and Community Health (3)
Special Education - SPED (3 S.H.)
    400 Education of Exceptional Children/Youth (3)
```

BS MAJJR - PHYSICAL SCIENCE (Teaching) (PPPS, PPST)
109-113 S.H.

Note: When this catalog went to print, all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact your program advisor and refer to the Teacher Education Addendum (www.winona.edu/education/advising) for the latest information about
program requirements whether you are (1) applying to a teacher education program, (2) currently enrolled in a teacher education program, or (3) expecting to graduate with a teacher education degree in 2010 or 2011.

The Physics 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 BOTapproved degree.

Successful completion of the Physics Teaching program will enable a student to apply for licensure in 9-12 high school physics, high school chemistry, and physical science upon achieving passing scores on the Minnesota Teacher Licensure Examination (MTLE) basic skills, content, and pedagogy tests.

## REQUIRED COURSES (109-113 S.H.)

Chemistry - CHEM (32 S.H.)
*212, *213 Principles of Chemistry I, II (8)
311 Science Teaching Methods (4)
312 Practical Considerations of Teaching Chemistry (2)
320 Environmental Chemistry (4)
340 Organic Chemistry Survey (4)
w 360 Chemical Information I (2)
po 412 Physical Chemistry I (3)
B. 413 Physical Chemistry I Lab (1)

425 Analytical Chemistry I (4)
Mathematics - MATH (12 S.H.)
160, 165 Calculus I, II (8)
270 Differential Equations I (4)
Physics - PHYS (28 S.H.)
221, 222, 223 University Physics I, II, III (12)
ß 330 Electronics (4)
B 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
M PHYS 460 Undergraduate Research (2)

## PROFESSIONAL EDUCATIONAL SEQUENCE (35-39 S.H.)

Note: Teacher education majors must take all courses in the Professional Education Sequence in addition to courses in the content area. Refer to the
"Teacher Education Programs" section of this catalog (page 214) for more
information.

## Education - EDUC (4 S.H.)

429 Secondary Reading and Teaching Strategies (4)
Educational Foundations, Research and Technology - EFRT (13 S. H.)

* 305 Human Development and Learning: Secondary (4)
* 308 Human Relations and Student Diversity (3)

时 312 Instructional Planning and Assessment: Secondary (3)
Fo 459 Professional Educator (3)
Education: Student Teaching - EDST (12-16 S.H.)
© 465 Student Teaching (12-16)
Health, Exercise and Rehabilitative Sciences - HERS (3 S.H.)

* 204 Personal and Community Health (3)

Special Education - SPED (3 S.H.)

* 400 Education of Exceptional Children/Youth (3)

Notes:

1. College graduates who need only a certification for grades 9-12 physics are required to complete these courses:

- PHYS 221, 222, 223, 311, 320, 330, 340, 345, 350, 370, and 460
- CHEM 212,213
- MATH 160,165,270
- EFRT 305, EFRT 308, EFRT312, EDUC 429, EFRT 459, and EDST 465

2. College graduates who need only a certification for grades 9-12
chemistry are required to complete these courses:

- CHEM 212, 213, 320, 340, 360, 400, 412, 413, 425, 430, 431, and 475
- PHYS 221, 222, and 311
- MATH 160, 165
- EFRT 305, EFRT 308, EFRT312, EDUC 429, EFRT 459, and EDST 465


## BS MINOR - AIRWAY SCIENCE/AVIATION (ASAV)

26 S.H.

## REQUIRED COURSES (26 S.H.)

## 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 and Legal Aspects of Aviation (2)
Note: For a complete listing of the FAA-approved Airway Science
Certification Program, see page 108.

## Management and Marketing (3 S.H.)

BUSA 291 Legal Environment in Business (3)

## Mathematics - MATH(3 S.H.)

140 Applied Calculus (3) Note: Students not prepared to take MATH
140 should take MATH 120.
Physics - PHYS (8 S.H.)
201, 202 General Physics I, II (8)
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. Prerequisites: 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. This course 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. Prerequisite: PHY 222. 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 Measurements 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, and sequence detectors. Prerequisite: PHYS 202,

## 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, and 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, and 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. Prerequisite: Department approval. P/NC only. 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.

## 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.
m=Oral Flag 胢= Math/Critical Analysis Flag 隹= Writing Flag

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. Prerequisites: PHYS 223 and MATH

## 270. Offered every two years.

460 - Undergraduate Research (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: Physics advisor's permission. May be repeated to a total of three credits. Offered on demand as an arranged class.

## AVIATION (PHYS)

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. May be repeated. Prerequisites: Junior standing and/or instructor's permission. 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 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 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 and 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 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. May be repeated. Prerequisites: PHYS 300 and 401 or equivalent. 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 AND PUBLIC ADMINISTRATION 

Minné Hall，Room 120 （507－457－5500；fax 507－457－2621）
www．winona．edu／politicalscience
Darrell Downs（Chairperson）

## FACULTY

Mattherw Bosworth，Professor；BA，Johns Hopkins University；MA，PhD，University of Wisconsin－Madison； 1997 －
Karen Csajko，Associate Professor；BA，MA，Portland State University；PhD，University of California－Berkeley； 1996 －
Darrell Downs，Professor；BA，BS，Montana State University；MS，Oregon State University；PhD，Colorado State University； 1992 －
Yogesh Grover，Professor；BA，MA，University of Delhi（India）；PhD，University of Missouri－Columbia； 1988 －
Edward Guernica，Associate Professor；BA，San Jose State；MA，PhD，Tulane University； 2004 －
Frederick Lee，Professor；AB，University of New Orleans；AM，PhD，University of Michigan； 1992 －
Kara Lindaman，Associate Professor；BA，MA，University of Northern Iowa；PhD，University of Kansas； 2006 －

## 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，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 $\mathrm{P} / \mathrm{NC}$ 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
    1 2 0 \text { Introduction to American Politics (3)}
    1 7 7 \text { Politics and Violence (3)}
    218 Community Service (3)
    220 Civil Rights and Civil Liberties (3)
    2 2 1 \text { State and Local Government (3)}
    2 2 7 \text { Judicial Process and Politics (3)}
    2 2 8 \text { Public Service (3)}
    315 American Political Thought (3)
    320 Constitutional Law (3)
B-321 The American Presidency (3)
&-322 Political Parties, Interest Groups, and
        Movements (3)
@330 Race and American Politics (3)
巴-333 Media and Politics (3)
    3 4 0 \text { Environmental Policy (3)}
    3 4 1 \text { Health Care Politics and Policy (3)}
    360 American Congress (3)
    4 2 0 \text { Administrative Law (3)}
    421 The First Amendment (3)
B-425 Policy Studies (3)
    426 The Politics of Public Budgeting (3)
```

120 Introduction to American Politics（3）
177 Politics and Violence（3）
218 Community Service（3）
220 Civil Rights and Civil Liberties（3）
227 Judicial Process and Politics（3）
228 Public Service（3）
315 American Political Thought（3）
Constitutional Law（3）
巴 322 Political Parties，Interest Groups，and Movements（3）
R 330 Race and American Politics（3）
F 333 Media and Politics（3）
340 Environmental Policy（3）
341 Health Care Politics and Policy（3）
360 American Congress（3）
421 The First Amendment（3）
B 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 Comparing Politics in Developing Countries（3）
ß 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）
时 347 International Organization（3）

422 American Foreign Policy（3）
w 460 North American Relations（3）
488 Issues in International Politics（3）

## Political Theory

150 Introduction to Political Theory（3）
B260 Classical Political Thought（3）
315 American Political Thought（3）
® 325 Modern Political Theory（3）
B－ 358 Contemporary Political Thought（3）
巴 450 Feminist Political Theory（3）
Research and Methodology
解 280 Introduction to Political Analysis（3）
时 410 Political Research Seminar（3）
Note：Independent Readings（401）and Internship（416）credits may apply toward the major requirements，but internships will be limited to three 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 three credits will count toward the major．

## UNVVERSITY 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 (F)
    POLS 280 Introduction to Political Analysis (3)
    POLS 410 Political Research Seminar (3)
```

Writing（B）

| POLS | 260 | Classical Political Theory（3） |
| :--- | :--- | :--- |
| POLS | 321 | American Presidency（3） |
| POLS | 322 | Political Parties，Interest Groups，and Movements（3） |
| POLS | 325 | Moden 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 Thought（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．

$$
\text { M Oral Flag } \quad \text { 时 = Math/Critical Analysis Flag } \quad \text { B }=\text { Writing Flag }
$$

BA MAJOR POLITICAL SCIENCE－GENERAL OPTION A（POLA）
42 S．H．（Minor Required）
REQUIRED COURSES－POLS（6 S．H．）
120 Introduction to American Politics（3）
件 280 Introduction to Political Analysis（3）

## ELECTIVES（36 S．H．）

Students should note the following two requirements：
－They must take at least three 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．

## BA MAJOR POIITCAL SCLEECE－－NIERNATIONAL STUDIES OPTION B（POLB） <br> 42 S．H．（Minor Required）

This option enables students to earn a BA 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）
时 280 Introduction to Political Analysis（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．

## BA MINOR－POLITICAL SCIENCE（POLS） <br> 21 S．H．

## REQUIRED COURSE－POLS（3 S．H．） <br> 120 Introduction to American Politics（3）

## EEECTVES（18 S．H．）

Students must take at least one course（three 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．

## BS 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）
用 280 Introduction to Political Analysis（3）
320 Constitutional Law（3）

阳 410 Political Research Seminar（3）
416 Internship（minimum of 3）
420 Administrative Law（3）
® 425 Policy Studies（3）
426 Politics of Public Budgeting（3）
429 Policy Reform（3）

## BS 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）
阣 280 Introduction to Political Analysis（3）
㭌 410 Political Research Seminar（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．

## 177 －Politics and Violence（3 S．H．）

A study of the modern and enduring questions about violence－its origins， causes，and cures．This course explores violence from a political science and an interdisciplinary perspective．Offered each semester．

## 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．Different alternatives are discussed with an eye toward acquiring a better understanding of the problems．May be taken for up to 3 semester hours．

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 prerequisite：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 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 - Introduction to Political Analysis (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, Interest Groups, and Movements (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, such as 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 multi-national 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 - Comparing Politics in Developing Countries (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.

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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 Seminar (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 280. 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 offer pre-professional sequences in dentistry, engineering, law, medicine (allopathic and osteopathic), optometry, pharmacy, physician assistant, physical therapy, podiatry, and veterinary medicine.

## PRE-DENTISTRY

Biology Department
(507) 457-5272

Pasteur Hall, Room 230

## Chemistry Department

Dr. Thomas Nalli and Dr. Sara Hein, Advisors
Pasteur Hall, Room 350 and 342 (507-457-2476 and 457-5294)

## 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.ada.org/prof/ed/programs/search ddsdmd us.asp. All predentistry students are encouraged to consult with the advisor to help plan their program. In the Biology Department, most pre-dentistry students follow either the Allied Health option or the Cell and Molecular option. In the Chemistry Department, most pre-dentistry students choose the ACS Biochemistry option.

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) |
| :---: | :---: |
| Upper-division | English intensive writing courses (3-6 S.H.): |
| ENG 210 | Advanced Expository Writing (3) AND/OR |
| ENG 222 | Introduction to Creative Writing (3) $\dagger$ |
| CMST 191 | Introduction to Public Speaking (3) |
| BIOL 241, 242 | 2 Basics of Life, Organismal Diversity (8) |
| MATH 120 | Precalculus and MATH 140 Applied Calculus OR |
| MATH 160, 165 | 5 Calculus I, II (8) |
| CHEM 212, 213 | 3 Principles of Chemistry I, II (8) |
| CHEM 350, 351 | 1 Organic Chemistry I, II (9) |
| BIOL 201 | Human Anatomy (4) |
| PHYS 201, 202 | General Physics I, II (8) OR |
| PHYS 221, 222 | University Physics I, II (8) |
| PSY 210 | Introduction to Psychological Science (3) |
| CHEM 400,401 | 1 Biochemistry I, II (7) |

$\dagger$ The University of Minnesota School of Dentistry requires eight semester hours of English with an emphasis on the intensive writing component.

## EEECTVES

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 Composite Materials 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 Composite Materials Engineering for specific course recommendations and class schedules．

```
Chemistry - CHEM
    212 Principles of Chemistry I (4)
    213 Principles of Chemistry II (4)
Computer Science - CS
    234 Algorithms and Problems Solving I (4) OR CME 210 (3)
Mathematics - MATH
    160 Calculus I (4)
    165 Calculus II (4)
    260 Multivariable Calculus (4)
    2 7 0 \text { Differential Equations and Linear Algebra (4)}
Physics - PHYS
    221 University Physics I (4)
    222 University Physics II (4)
    302 Electrical Circuits and Systems (3)
Composite Materials Engineering - CME
    102 Introduction to Engineering (2)
    182 Engineering Graphics and Design (2)
    210 Computer Applications in Engineering (3) OR CS 234 (4)
    2 5 0 ~ S t a t i c s ~ ( 3 )
    2 6 0 \text { Mechanics of Materials (3)}
    2 7 0 \text { Dynamics (3)}
    300 Thermodynamics (3)
English - ENG
    111 College Reading and Writing (4)
University Studies Courses
PRE-AW
Minné Hall, Room 209 (507-457-5411)
Dr. Kurt Hohenstein, Advisor
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University law schools require completion of a bachelor＇s degree or its equivalent before entering law school．It is suggested that interested students follow a program that provides a breadth of knowledge with in－depth study in areas that promote critical thinking and written and oral communication skills．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．

Before deciding to pursue a legal career，interested students are encouraged to contact the pre－law advisor to get information about majors，minors，grade point averages，internship and volunteer activities，law school admission tests， personal statements，and law schools in the United States．

## PRE－MEDICINE（ALLOPATHIC AND OSTEOPATHIC）

Biology Department
Pasteur Hall，Room 220 （507－457－5271）
Dr．Ed Thompson，Advisor

## Chemistry Department

Pasteur Hall，Room 350 and 342 （507－457－2476 and 507－457－5294）
Dr．Thomas Nalli and Dr．Sara Hein，Advisors
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 the ACS Biochemistry option．

Admission to the University of Minnesota－Twin Cities Medical School， Mayo School of Medicine，and the University of Minnesota－Duluth Medical

School requires 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）
町 BIOL 310 Genetics（3）
BIOL 409 General Microbiology（4）
Mathematics and Statistics
MATH 160 Calculus I（4）OR
MATH 140 Applied Calculus（3）
STAT 120 Statistics（3）OR
STAT 305 Biometry（3）
Chemistry
CHEM＊212，＊213 Principles of Chemistry I，II（8）
CHEM 350， 351 Organic Chemistry I，II（9）
巴 CHEM 400 Biochemistry I（4）
CHEM 401 Biochemistry II（3）
Physics
PHYS＊201，＊202 General Physics I，II（8）OR
PHYS＊221，＊222 University Physics I，II（8）

## Psychology

PSY＊210 Introduction to Psychological Science（3）
PSY 250 Developmental Psychology（3）
300－400 level Humanities（3）
300－400 level Psychology（3）
Foreign Language（4）

## OTHER COURSES TO COMPLETE REOURED CREDIT

Students should consult with their advisor for those courses necessary to complete a BS or BA degree．

## PRE－OPTOMETRY

College of Science and Engineering
Dr．Mark Garbrecht，Biology Advisor（Pasteur Hall，Room 234）
Drs．Sara Hein and Thomas Nalli，Chemistry Advisors（Pasteur Hall，Rooms 342 and 350，respectively）

The Pre－Optometry program is graduate－school specific；that is，the course of study at WSU is designed according to the graduate school chosen by the student．There are approximately 17 graduate programs in the United States， both private and public．Students interested in pre－optometry should meet with an advisor to plan their program as soon as possible after they begin study at WSU．

Before students apply to a professional optometry school，they must complete at least three years of college work，and they must take the Optometry Admissions Test．This test is usually given in February and October，and it is usually taken the fall of the student＇s third undergraduate year．

In the Biology Department，most pre－dentistry students follow either the Allied Health option or the Cell and Molecular option．In the Chemistry Department，most pre－dentistry students choose the ACS Biochemistry option．Most programs require the following：

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- Biology with Laboratory (6 S.H.)
- Microbiology with Laboratory (3 S.H.)
- General Chemistry with Laboratory (6 S.H.)
- Organic Chemistry (3 S.H.)
- Physics with Laboratory (6 S.H.)
- College Calculus (3 S.H.)
- Statistics (3 S.H.)
- Psychology (3 S.H.)
- A Social Science course (3 S.H.)


## PRE-PHARMACY

## Chemistry Department

Pasteur Hall, Room 350 and 342 (507-457-2476 and 457-5294)
http://www.winona.edu/chemistry/prepharm/default.htm
Dr. Thomas W. Nalli and Dr. Sara Hein, Advisors

## Biology Department

(507)-457-5272

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 with their advisor and the school's catalog.

Biology-8 or 15 S.H.
For the University of Minnesota-Twin Cities and Duluth
BIOL 201 Human Anatomy (4) AND BIOL 323, Physiology (3) OR
BIOL 211 Anatomy and Physiology I (4) AND BIOL 212, Anatomy and Physiology II (4)
BIOL 209 Microbiology (3)
BIOL 241 Basics of Life (4)
For the University of Wisconsin-Madison
$\dagger$ BIOL 209 Microbiology (3)
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 advanced composition 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 Introduction to Psychological Science (3)
SOC 150 Introduction to Sociology (3)
Statistics-3 S.H.
$\dagger$ STAT 210 Statistics (3)
Ethnic Studies - 3 S.H.
For the University of Wisconsin-Madison
SOC 340, ENG 220, HIST 220, OR HIST 235

## RECOMMENDED COURSES:

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CHEM 400 Biochemistry I (4)
CHEM 401 Biochemistry II (3)
CHEM 402 Biochemistry Laboratory II (1)
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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.
$\dagger$ These courses are required for admission at University of Wisconsin-Madison beginning fall semester 2011.

## 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 Department

Pasteur Hall, Room 220 (507) 457-5271
http://www.winona.edu/biology/
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: $12 \mathrm{~S} . \mathrm{H}$. , 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: 4 S. H.
- Human Physiology: 4 S. H.
- Statistics: 3 S.H.
- Mathematics: 3 S. H. of college trigonometry or higher (calculus is usually required).
- English composition and literature: $8 \mathrm{~S} . \mathrm{H}$.
- 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 such as histology, endocrinology, genetics, microbiology, parasitology, molecular biology, neuroscience, cell biology, cell physiology, embryology, 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 careerrelated 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 56. 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 Department

Maxwell Hall, Room 368 (507-457-5219)
www.winona.edu/hers/
Email: 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 132). 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. Within the 120 credits needed to graduate from WSU, the Movement Science major is specifically designed to meet the prerequisites for doctoral physical therapy programs. In addition to the core courses in Health, Exercise and Rehabilitative Sciences, each student has an option 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. To declare a major in the Movement Science Option, students must have a cumulative GPA of 3.0 or better.
Dr. Gary Kastello is available to advise students on career opportunities in physical therapy. Dr. Kastello has an MS degree in Exercise Physiology, a PhD in Biological Science, and two years of teaching experience in the Indiana University/Purdue University-Indianapolis Physical Therapy Department.

## REQUIRED COURSES - HERS Movement Science Option

Health, Exercise and Rehabilitative Sciences - HERS (37 S.H.)
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 (3)
340 Physiology of Exercise (4)
360 Nutrition for the Physically Active (3)
364 Practicum in Movement Science (1)
370 Mechanical Kinesiology (3)
380 Lab Methods in Exercise Science (3)
389 Strength and Conditioning Principles (3)
403 Epidemiology (3)
412 Movement Science Data Collection (3)
445 Medical Aspects of Exercise (3)
Physical Education and Sport Science - PESS (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)
Nursing - NURS (4 S.H.)
360 Pharmacology (1)
366 Pathophysiology (3)
Mathematics and Statistics (7 S.H.)
STAT 110 Statistics (3)
MATH 120 Precalculus (4)
Psychology - PSY (9 S.H.)
210 Introduction to Psychological Science (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)
Physics - PHYS (8 S.H.)
201 General Physics I (4)
202 General Physics II (4)
Sociology-SOC (3 S.H.)
150 Introduction to Sociology (3)
Research or Academic Focus (6-7 S.H.)
Research Focus (6 S.H.)
HERS 390 Movement Science Research Design (3)
HERS 412 Movement Science Research Data Collection (3)
Academic Focus (7 S.H.)
CS 116 Web Technology (3)
BIOL 307 Cell Biology Lecture (3)
BIOL 308 Cell Biology Laboratory (1)

## PRE-PHYSICIAN ASSISTANT

Biology Department
(507) 457-5270

## Chemistry Department

Dr. Thomas Nalli and Dr. Sara Hein, Advisors
Pasteur Hall, Room 350 and 342 (507-457-2476 and 457-5294)
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.arc-pa.org/Acc Programs/acc programs.html. In the Biology Department, 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. In the Chemistry Department, most pre-physician assistant students choose the ACS Biochemistry 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.

PRE-PODIATRY
Pasteur Hall, Room 220, (507) 457-5271
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
 plan their programs of study.

## PRE-VETERINARY MEDICINE

Dr. Kimberly M. Bates, Biology Advisor
Pasteur Hall, Room 228 (507-457-5458)

## Chemistry Advisors:

Dr. Sara Hein - Pasteur Hall, Room 342 (507-457-5294)
Dr. Thomas Nalli - Pasteur Hall, Room 350 (507-457-2476)
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; 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 U of M College 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)
时 BIOL 310 Genetics (3)
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 150 Modeling Using Precalculus and Statistics (3) OR
MATH 155 Modeling Using Calculus (3) OR
MATH 160 Calculus I (4)

## Physics

PHYS *201, *202 General Physics I, II (8) OR
PHYS *221, *222 University Physics I, II (8)

## ELECTIVES

STAT 110 (3 S.H.), Fundamentals of Statistics, is not required, but is recommended by the $U$ of M 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, social science, and sociology courses.
- Arts and Humanities (6-9 credits): Art, literature, music, philosophy, theater, religion, and foreign language literature courses. 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.)
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# PROFESSIONAL STUDIES 

Outreach and Continuing Education Department
Somsen Hall, Room 106 (507-457-5080)
Jennifer Lamberson (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/minors are advised by personnel within the Outreach and Continuing Education Department. When declaring the major/ minor, students must submit a statement of their goals and objectives for the major/minor; this statement will be reviewed by the advisor and retained in the student's file.

## BA 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.

## BA MAJOR PROFESSIONAL STUDIES: LEADERSHIP OPTION (PSLE) <br> 48 S.H. upper-division courses (300- and 400-level)

This program allows students to focus their major coursework in one or more areas of leadership knowledge and skills. Students may declare up to two minors within the requirements of this major. The Leadership Option requires that students complete 48 credits of upper-division coursework of which 21 credits must be selected from the following list of approved core electives that pertain to various aspects of leadership.

## REQUIRED COURSES (21 S.H.)

Select 21 S.H. from the following:
Business Administration - BUSA
326 Business and the Future (3)
Business Education - BUED
350 Quality of Work Life (3)
360 Interpersonal Business Relations (3)
412 Team Building (1-3)
Communication Studies - CMST
巴 366 Organizational Communication (3)
371 Small Group Communication (3)
387 Interpersonal Communication (3)
Counselor Education - CE
432 Stress Management (3)
Management-MGMT
叩 325 Organizational Dynamics (3)
334 Operations Management (3)
464 Project Management (3)
Marketing - MKTG
300 Principles of Marketing (3)
Mass Communication - MCOM
340 Public Relations Cases (3)
Management Information Systems - MIS
362 Management Information Systems (3)
Psychology - PSY
305 Theories of Personality (3)
325 Social Psychology (3)
330 Psychology and the Law (3 S.H.)
425 Organizational Psychology (3)
Sociology-SOC
423 Race Relations and Minority Groups (3)

## ELECTIVES

27 credits of upper-division courses (300- or 400-level)

## REQUIREMENTS FOR PSGE AND PSLE MAJORS

For a checklist of the University's graduation requirements, see page 23. For the Professional Studies majors/minor, students must:

- Complete the standard University Studies Program, 48 upper-division credits, and electives to reach a minimum of 120 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 nine credits applying to the major may be taken on a P/NC basis. All other WSU policies apply.


## BA MINOR - PROFESSIONAL STUDES (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.

## ORGANIZATIONAL LEADERSHIP CERTIFICATE

19 S. H.
The Organizational Leadership Certificate program is designed to meet the needs of working adults who are seeking to advance their job skills or career through an enhanced understanding and application of organizational leadership principles. The certificate requires the successful completion of 19 semester credits of undergraduate coursework. The program may periodically be offered in an adult learning cohort format using combined delivery methods.

```
REQUIRED COURSES (19 S.H.)
Business Education - BUED
    350 Quality of Work Life (3)
    360 Interpersonal Business Relations (3)
    412 Team Building (2)
Communication Studies-CMST
P2366 Organizational Communication (3)
Management - MGMT
& 325 Organizational Dynamics (3)
Regional Campus - REGC
    490 Seminar in Adult Education - Topic: Leadership and Ethics(3)
    490 Seminar in Adult Education - Topic: Legal and Financial
        Aspects of Leadership (2)
COURSE DESCRIPTIONS - PS
```

    PS 399 - Internship (3-6 S.H.)
    Internship for Professional Studies majors who have completed a minimum of 64 credit hours including at least 21 hours of upper-division credits.
Prerequisite: Departmental approval. May be taken for grade or pass/no credit.

## REGC 490 - Seminar in Adult Education (1-3 S.H.)

Leadership topics from an intrapersonal and interpersonal perspective on a variety of current issues in both the public and private sector. May be repeated when offered for different subject content and topic title.

## BA MAJOR PROFESSIONAL STUDIES：AVIATION MAINTENANCE MANAGEMENT OPTION（PSAM）

Degree program： 128 S．H．；Certification pending： 138 S．H．
（No Minor Required）
Pasteur Hall，Room 120 （507－457－5260）
George Bolon（Advisor）

## 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 I（4）
PHYS 201 General Physics I（4）
Social Science（6 S．H．）
PSY 210 Introduction to Psychological Science（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 291 Legal Environment in Business（3）
旳 ECON 222 Statistics for Business and Economics（3）
MGMT 315 Principles of Management（3）OR
B－MGMT 317 Management of Human Resources（3）
MGMT 334 Operations Management（3）
MIS 362 Management Information Systems（3）
MKTG 300 Principles of Marketing（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 of Aviation（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－DIVIISION 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．）<br>STAT 110 Fundamentals of Statistics（3）OR<br>ECON 322 Intermediate Statistics for Business and Economics（3）<br>PHYS 202 General Physics II（4）<br>MATH 140 Applied Calculus（3）

## PSYCHOLOGY

Phelps Hall，Room 231 （507－457－5435）
www．winona．edu／psychology
Peter Miene（Chairperson）
FACULTY
Richard A．Deyo，Professor；BS，Viterbo College；MA，PhD，Bowling Green State University； 1990 －
Carrie Fried，Professor；BS，Iowa State University；MS，PhD，University of California，Santa Cruz； 1999 －
John Holden，Assistant Professor；BA，MA，PhD，University of Minnesota－Twin Cities；2008－
John Johanson，Professor；BS，University of South Dakota；MA，University of Nebraska－Omaha；PhD，University of Nebraska； 1999 －
Mary S．Kesler，Professor；BMEd，MA，PhD，University of Kansas－Lawrence； 1987 －
Gloria Marmolejo，Professor；BS，National Autonomous University of Mexico；MS，PhD，University of Wisconsin－Madison， 1994 －
Peter K．Miene，Professor；BA，University of Kansas－Lawrence；PhD，University of Minnesota－Twin Cities； 1992 －
Charles Scbreiber，Assistant Professor；BA，Pitzer College；PhD，University of California，Berkeley； 2005 －
Susan B．Sefkow，Professor；BA，Yale University；MS，PhD，University of Massachusetts－Amherst； 1978 －
Jessica Siebenbruner，Assistant Professor；BA，MA，University of Minnesota；PhD，University of Minnesota－Twin Cities； 2007 －
Janette P．Williams，Professor；BA，Northwestern University；MA，PhD，University of Illinois； 1987 －

## PURPOSE

The department＇s mission is to develop students＇understanding of the causes and consequences of human thought and behavior and to encourage the application of this knowledge to their personal and professional lives．Psychology is a liberal arts major which will allow students to acquire skills in communication，critical thinking（including the ability to understand and evaluate the various research methods used in psychology），and the appropriate use of technology for examining and presenting information．Students will also learn how psychological principles apply to personal，social，and organizational issues．

Psychology majors acquire the knowledge and skills necessary for employment in a variety of settings that involve an understanding of human behavior including careers in human services，nonprofit organizations，technical and／or laboratory work，and business．Students desiring to work as professional psychologists will be well prepared for graduate study．An advanced degree in psychology allows the pursuit of many different careers including，but not limited to，clinical or counseling psychologist，researcher，consultant，or higher education professional．
= Oral Flag 时= Math/Critical Analysis Flag 阿= Writing Flag

## PSYCHOLOGY MAJOR

Students 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 a more in-depth experience. Option B also requires additional coursework in writing and statistics as these are important skills in a graduate degree program.

Students must consult with a Psychology Department advisor to plan a major in psychology. All psychology majors are strongly encouraged to take PSY 231 (Statistics), PSY 308 (Experimental Psychology), and PSY 309 (Experimental Psychology Lab) 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.

## ENRICHMENT OPPORTUNITIES

To enhance their education in psychology and better prepare for their careers or graduate studies, students are encouraged to take advantage of the following:

> Careers in Psychology (PSY 309)

Research experience (including PSY 400, Independent Study) Internship (PSY 404)
Membership in the Psychology Club and/or Psi Chi, the National Honorary Society in Psychology

## SCHOLARSHIPS

The Psychology Department offers two scholarships. Contact the department for additional information.

- Kerry Williams Memorial Psychology 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) and internships (PSY 404), majors and minors must take all psychology courses on a grade-only basis. The P/NC option is available in PSY 210 for non-psychology majors and 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 23. 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.
- In psychology courses, grades lower than "C" do not count toward the psychology major.
- No more than three S.H. credits of general introductory psychology transferred to WSU can be credited toward a psychology major or minor.
- No more than six 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 six S.H. credits of PSY 400 and/or PSY 404 may count toward a psychology major and three S.H. toward a psychology minor.
- Online courses may not substitute for upper-division core courses in psychology.


## 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 departmental requirements for graduation with Honors in Psychology. The requirements for Honors in Psychology are:

1. Declaration of a major in psychology.
2. Membership in Psi Chi, the National Honorary Society in Psychology.
3. Completion of a research paper based upon a project completed 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 (m)
PSY 309 Experimental Psychology Lab (2)
PSY 311 Careers in Psychology (1)
PSY 431 Counseling and Clinical Psychology (3)
Math/Critical Analysis (Fت)
PSY 231 Statistics (3)
Writing (B)
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.

BA MAJOR－PSYCHOLOGY：OPTION A（PSYA）
35 S．H．（Minor Required）

```
REQUIRED COURSES - PSY (17 S.H.)
    210 Introduction to Psychological Science (3)
pu 231 Statistics (3)
    308 Experimental Psychology (3)
m309 Experimental Psychology Lab (2)
B2 350 Psychological Testing and Measurement (3)
B-434 History and Systems of Psychology (3)
```


## ELECTIVES（18 S．H．）

Psychology electives to total at least 18 S．H．

```
BA MAJOR- PSYCHOLOGY: OPTION B (PSYB)
50-51 S.H. (No Minor Required)
```


## CORE REQUIRED COURSES（17 S．H．）

210 Introduction to Psychological Science（3）
町 231 Statistics（3）
308 Experimental Psychology（3）
造309 Experimental Psychology Lab（2）
B 350 Psychological Testing and Measurement（3）
B 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）

## ELECTVES（15 S．H．）

Psychology electives to total at least $15 \mathrm{~S} . \mathrm{H}$ ．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－ENG（3 S．H．）

210 Advanced Expository Writing（3）OR
211 Writing in Communities（3）OR
® 439 Technical Writing（3）
Statistics－STAT（3 S．H．）
310 Intermediate Statistics（3）OR
360 Regression Analysis（3），OR
365 Experimental Design and Analysis（3）OR an approved substitute
BA MINOR－PSYCHOLOGY（PSY）
21 S．H．

## REQUIRED COURSES（3 S．I．）

PSY 210 Introduction to Psychological Science（3）

## ELECTVES（18 S．H．）

Psychology electives to total at least 18 S．H．

## COURSE DESCRRPTIONS－PSY

210 －Introduction to Psychological Science（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．Prerequisites：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 and Gender（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 yearly．

## 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 yearly．

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．Offered each semester．
310 －Child Developments（3 S．H．）
This course will focus heavily on the developmental periods of infancy and middle childhood（roughly equivalent to prenatal through ages 10－11）．The major domains of development－biological，cognitive，and social－will be covered in the course．Prerequisite：PSY 210．PSY 250 is recommended，but not required．Grade only．Offered every other spring semester．

## 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．Offered each semester．

## 315 －Adolescent Development（3 S．H．）

This course will focus heavily on the developmental period of adolescence and include some information from the developmental period of emerging adulthood（roughly equivalent to ages 12 to 18－25）．The major domains of development－biological，cognitive，and social－will be covered in the course．The course will also cover issues related to psychosocial development （e．g．，intimacy，achievement，problems during adolescence）．Prerequisite： PSY 210．PSY 250 is recommended，but not required．Grade only．Offered every other spring semester．

## 325 －Social Psychology（3 S．H．）

Overview of theories and research in social psychology．Topics include social cognition，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
M=Oral Flag 胢=Math/Critical Analysis Flag B = Writing Flag
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 each semester.

## 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. Prerequisites: PSY 210 and other requirements as determined by the instructor. Offered each semester.

404 - Internship (3-6 S.H.)
Supervised work experience designed by the instructor, site supervisor, and student. Human services and applied data analysis/research internships are available. Prerequisites for human services internships : PSY 420 and PSY 431. Prerequisites for applied data analysis/research internships: PSY 231, PSY 308, and PSY 309. Both types of internships require instructor's permission and minimum GPA of 2.50. Some class attendance in Winona is required. $\mathrm{P} / \mathrm{NC}$ only.

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. 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.)
This course will examine the common mental health disorders of childhood and adolescence. A developmental psychopathological framework will be applied to the examination of the disorders. Disorders likely to be covered are anxiety, mood, conduct, pervasive developmental disorders (e.g., autism), and learning. 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 WAGS 148) or instructor's permission. Grade only. Offered as available. 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. Prerequisites for non-majors: ENG 111 and a 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 other requirements as determined by the instructor. Grade only. Offered as available.

## RECREATION, TOURISM AND THERAPEUTIC RECREATION

Memorial Hall, Room 122 (507-457-5200; Fax: 507-457-5606)
Lorene S. Olson (Chairperson)

## FACULTY

Begum Aybar-Damali, Assistant Professor; BS, Middle East Technical University (Turkey); MS, PhD, Clemson University; 2009 Lorene Olson, Professor; BS, MS, University of Wisconsin-La Crosse; PhD, University of New Mexico; 1989 -
James Reidy, Associate Professor; BS, MS, EdD, Oklahoma State University; 2000 -
Roger Riley, Professor; BS, MS, University of Wisconsin-La Crosse; PhD, Texas A\&M University; 2000 -
Dave Wright, Associate Professor; BS, University of Sydney/Goulburn Teacher's College; MS, PhD, University of Oregon; 2005 -

## PURPOSE

The Department of Recreation, Tourism and Therapeutic Recreation exists within the College of Education. Through traditional as well as experiential methods, the faculty prepare majors to become recreation, tourism, and therapeutic recreation (RTTR) professionals. The RTTR major leads to a nonteaching Bachelor of Science degree. The department offers numerous RTTR courses, which fulfill the two-semester hour University Studies requirement for Physical Development and Wellness. In addition to the RT and TR tracks, the department offers an Adventure Tourism minor (ADVT).

## CAREER OPPORTUNITIES

## Recreation and Tourism (RT)

Graduates in the recreation and tourism major are qualified to obtain entry-level positions in the following settings:

- Nonprofit 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)

Therapeutic Recreation (TR)
Graduates in the therapeutic recreation major are qualified to obtain entrylevel positions in the following settings:

- Special rehabilitation centers for persons with physical disabilities
- Mental health facilities that treat a variety of psychological impairments
- 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 Service, Bureau of Land Management)
- 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

- BS Major: Recreation, Tourism and Therapeutic Recreation. Students in this major may elect the recreation and tourism track (RT) or the therapeutic recreation track (TR). While a minor is not required for the RTTR programs, many students elect to complete both tracks and/or add an additional minor such as adventure tourism or wellness coaching.
- BS Minor: Adventure Tourism (ADVT). This is an interdisciplinary program sponsored by the RTTR Department.


## 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.

## PASS/NO CREDIT (P/NC) COURSES

Except for internships, students majoring or minoring in RTTR 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 Recreation, Tourism and Therapeutic Recreation offers the following flag courses in the University Studies Program:

```
FLAG
Oral (m)
    RTTR 414 Recreational Leadership (3)
```



```
    RTTR 393 Evaluation in Recreation,Tourism, and Therapeutic
```

                        Recreation (3)
    RTTR 393 Evaluation in Recreation, Tourism, and Therapeutic Recreation (3)
Writing (F)
RTTR 326 Organization and Administration of Recreation (3)
RTTR 426 Recreation Facilities and Area Design (3)

Flag courses that can be used to satisfy RTTR major/minor requirements are identified in the lists of required courses and electives in this section.

## BS MAJOR - RECREATION, TOURISM AND THERAPEUTIC RECREATION (RTTR)

(No Minor Required)
This major is designed to prepare students for professional leadership roles in a variety of public, commercial, clinical, community, and naturalresource settings where recreational and/or therapeutic recreation services are offered. Within the major, students may select the Recreation and Tourism (RT) Track and/or the Therapeutic Recreation (TR) Track. Students who graduate with the Therapeutic Recreation Track are qualified to sit for the National Council for Therapeutic Recreation Certification (NCTRC) examination. See page 198 for information about career opportunities available to graduates of both these options.

明 = Oral Flag = Math/Critical Analysis Flag = Writing Flag

## 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

- To be eligible for an internship, a student must have a 2.50 GPA overall as it appears on the Degree Audit Reporting System (DARS) at the end of the semester preceding the internship experience. Note: It is the student's responsibility to complete a graduation application two semesters prior to graduation.
- If a student fails an internship due to poor performance or a serious ethical or legal violation, he or she will be required to participate in a remediation plan. A TR or RT internship may be repeated only one time. If a student fails a second internship, he or she will not be able to graduate with a RTTR major.
- A student must earn a grade of "C" or better in all RTTR core courses with the exception of internships, which are pass/no credit courses.
- A student who has earned another bachelor's degree or is currently pursuing another bachelor's degree is not required to take Specialty Area or Supportive courses within the RT major (only). Note: If a student who is currently pursuing another bachelor's degree decides that he/she no longer wishes to pursue the second degree, the student must take both the Supportive and Specialty Area courses.
- Within the first semester of declaring the Recreation and Tourism degree track, a student must meet with his/her assigned advisor to declare the specialty area he or she will pursue.
- It is highly recommended that students enroll in either STAT 220 or 210 for the University Studies math requirement.


## 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. An assistance plan will be developed; the plan will likely draw upon the services of such units as the Counseling Center, the Writing Center, Student 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)

## 63-67 S.H.

## RTTR COURSES REQUIRED BY TRACK A AND TRACK B (37-39 S.H.)

203 Recreation Programming (3)
229 Foundations of Recreation and Leisure Studies (3)
$\dagger 239$ Outdoor Pursuits (3) OR 246 Leisure Education in Therapeutic Recreation (3)
245 Therapeutic Recreation and Services (3)
B 326 Organization and Administration of Recreation (3)
350 Legal and Financial Aspects of Recreation (3)
po 393 Evaluation in Recreation, Tourism, and Therapeutic Recreation (3)
398 Practicum in Recreation and Tourism or Therapeutic Recreation (100 hours) (3)
399 Internship in Recreation and Tourism or Therapeutic Recreation (10-12)
m 414 Recreational Leadership (3)
R 426 Recreation Facilities and Area Design (3)
Students must take CS 115 for designated University Studies area or demonstrate competency in the course content by testing out with the designated computer science faculty member.
$\dagger$ Either course fulfills University Studies requirement - Physical Development and Wellness.

## RTTR REQUIREMENTS FOR TRACK A ONLY (22 S.H.)

In consultation with their advisor, Recreation and Tourism (Track A) students must declare one of the Specialty Areas below and also have a plan approved by their advisor for appropriate Supportive Courses. Students must have a grade of " C " or better in all Specialty Area courses.

## Specialty Area A - Commercial Recreation (12 S.H.)

## Required Courses

290 Foundations of Tourism (3)
350 Legal and Financial Aspects (3)
370 Special Events and Festivals (3)
380 Commercial Recreation (3)
Supportive Courses (additional 14-16 S.H. with plan approved by advisor)

## Specialty Area B - Nature-Based Tourism (15 S.H.)

## Required Courses

290 Foundations of Tourism (3)
302 Adventure Travel and Tourism Development (3)
339 Wilderness Ethics Safety and Survival (3)
380 Commercial Recreation (3)
421 Outdoor Education and Interpretive Services (3)
Supportive Courses (additional 11-13 S.H. with plan approved by advisor)

## Specialty Area C - Inclusive Recreation (12 S.H.)

## Required Courses

239 Outdoor Pursuits OR 246 Leisure Education in Therapeutic Recreation (3) [opposite of choice in core]
332 Leisure and Aging (3)
342 Interventions in Therapeutic Recreation (3)
468 Programming in Therapeutic Recreation (3)
Supportive Courses (14-16 S.H. with plan approved by advisor)

## Specialty Area D - Community/Nonprofit Recreation (12 S.f.) <br> \section*{Required Courses}

239 Outdoor Pursuits OR 246 Leisure Education in Therapeutic Recreation (3) [opposite of choice in core]
350 Legal and Financial Aspects (3)
370 Special Events and Festivals (3)
421 Outdoor Education and Interpretive Services (3)
Supportive Courses (14-16 S.H. with plan approved by advisor)
In collaboration with, and approved by their faculty advisor, students must develop a plan for selecting Supportive Courses that are closely related to their chosen Specialty Area. Supportive Courses must be at the 200-level or higher, and all majors must earn a minimum of 40 university-wide semester hours at the 300 - or $400-$ level in order to graduate.

## TRACK B: THERAPEUTIC RECREATION (TR) <br> (70-72 S.H.)

RTTR COURSES REQUIRED BY TRACK A AND TRACK B (37-39 S.H.)
203 Recreation Programming (3)
229 Foundations of Recreation and Leisure Studies (3)
$\dagger 239$ Outdoor Pursuits (3) OR 246 Leisure Education in Therapeutic Recreation (3)
245 Therapeutic Recreation and Services (3)
B 326 Organization and Administration of Recreation (3)
珄 393 Evaluation in Recreation, Tourism, and Therapeutic Recreation (3)
398 Practicum in Recreation and Tourism or Therapeutic Recreation (100 hours) (3)
399 Internship in Recreation and Tourism or Therapeutic Recreation (10-12)
m 414 Recreational Leadership (3)
© 426 Recreation Facilities and Area Design (3)
Students must take CS 115 for designated University Studies area or demonstrate competency in the course content by testing out with the designated computer science faculty member.
$\dagger$ Either course fulfills University Studies requirement - Physical Development and Wellness.

## RTTR REQUIREMENTS FOR TRACK B ONLY (27 S.H.)

RTTR 332 Leisure and Aging in Therapeutic Recreation (3)
RTTR 342 Intervention Techniques in Therapeutic Recreation (3)

| RTTR | 468 | Programming in Therapeutic Recreation (3) |
| :--- | :--- | :--- |
| RTTR | 475 | Trends and Issues in Therapeutic Recreation (3) |
| PSY | 210 | General Psychology (3) |
| PSY | 250 | Developmental Psychology (3) |
| PSY | 420 | Abnormal Psychology (3) |
| BIOL | 171 | Medical Terminology (1) |
| BIOL | 172 | Medical Terminology (1) |
| BIOL | 211 | Anatomy and Physiology (4) |

To satisfy the National Council for Therapeutic Recreation Certification (NCTRC) requirements of 18 semester hours in supportive areas, Track B students must earn an additional six semester hours (total) from one or more of the disciplines specified below. This requirement is in addition to courses used for University Studies (six semester hours).

- Counselor Education
- Health, Exercise and Rehabilitative Sciences
- Psychology (with the exception of general, developmental, and abnormal psychology)
- Sociology
- Social Work
- Nursing
- Human biology courses (with the exception of BIOL 171 and 172)


## 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.

## BS 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.

## REQUIRED COURSES (27 S.H.)

Select a total of 27 credits from the following:
Geography - GEOG
270 Geography of Tourism (3)
Marketing - MKTG
$\dagger 333$ Topics in Marketing (3)
336 Services Marketing (3)
337 Qualitative Research Methods (3)
$\dagger 399$ Internship Experience (3)
Recreation, Tourism and Therapeutic Recreation - RTTR
239 Outdoor Pursuits (3)
240 Outdoor Pursuits II (3)
265 Leisure in Different Cultures (3)
290 Foundations of Tourism (3)
302 Adventure Travel and Tourism Development (3)

350 Legal and Financial Aspects (3)
390 Tourism Planning (3)
393 Evaluation in Recreation, Tourism, and Therapeutic Recreation (3)
396 Leadership and Group Dynamics: An Experiential Education Approach (3)
$\dagger 398$ Practicum in Recreation and Tourism or Therapeutic Recreation (3) (May be repeated once for credit within this program)
$\dagger 417$ Special Topics in Recreation, Tourism or Therapeutic Recreation (1-3)
(May be repeated once for credit within this program)

421 Outdoor Education and Interpretive Services (3)
$\dagger$ Course content must relate to tourism and be pre-approved by the ADVT advisor.

## COURSE DESCRIPTIONS - RTTR

## 144 - Contemporary Activities (1 S.H.)

This course introduces the student to varied contemporary, movements-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.

## 145 - The Search for Self-Esteem (1 S.H.)

Current trends show a movement from a sole focus on physical health to that of overall wellness, or a more active process of making healthy choices related to body, mind, and spirit. Self-confidence and self-respect are, in essence, selfesteem, which is the basis for living "well." Self-esteem has a major impact on decision-making, relationships, careers-just about everything we experience in life. This course will focus on understanding, exploring, and enhancing one's self esteem as the basis for making healthy life choices. Grade only.

## 203 - Recreational Programming (3 S.H.)

This course provides an introduction to recreational and sports programming and leadership concepts. Grade only.

## 210 - Professional Development in Recreation, Tourism and Therapeutic Recreation (1 S.H.)

Explores the array of professional opportunities through interaction with invited experts and experiential exercises. Prepares students for the profession by fulfilling volunteerism and professional organization requirements as well as the initial development of portfolios and resumes. Grade only.

## 222 - Resources and Applications in Program Delivery for Recreation,

 Tourism and Therapeutic Recreation (3 S.H.)Students ${ }^{\circ}$ develop rescurce applieations 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: RTTR 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. Challenge by choice philosophy. Additional fee. 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.

## 244 - Stewardship of Self and the Environment: Building a Principled

## Way of Life (3 S.H.)

Students will explore and critically analyze information from popular culture and research sources to assist in the development of their affective, psychomotor, and cognitive domains as described by Bloom. Students will also investigate their social selves by comparing themselves to selected role models. Students will have the opportunity to critically analyze themselves while developing a slogan, motto, mission, goals, and objectives to assist with their sustainable journey through the university environment. Students will chart themselves to determine the extent to which they become contributing sustainable members of the campus and the surrounding community. 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.
246 - Leisure Education in Therapeutic Recreation (3 S.H.)
This course introduces leisure education as a process whereby students will "recognize leisure as an avenue for personal satisfaction and enrichment, become familiar with an array of leisure opportunities, understand the impact leisure has on society, and make decisions regarding their own leisure behavior." (Zeyen, Odum \& Lacaster, 1977) 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 RTTR 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: RTTR 229 and

## RTTR 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: RTTR 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: RTTR 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: RTTR 229 and RTTR 245. Grade only.

## 370 - Festival and Special Event Planning (3 S.H.)

This course introduces students to the details of festival and special event planning, implementation, and evaluation from the perspective of the recreation and/or tourism professional. Following an introduction to concepts of special event/festival planning, implementation, and evaluation, students become experientially involved with the critical analysis of a special event or festival. Student analysis of the assigned special event/festival will integrate all phases of the recreation experience (anticipation, travel to, the experience itself, travel from, and recollection). Grade only.

## 380 - Commercial Recreation (3 S.H.)

Principles and procedures related to the development and operation of recreation, tourism, resort, and outdoor adventure commercial enterprises. This course prepares the student to conduct feasibility studies within the leisure services industry and to learn the functions of day-to-day operations required to maintain a profitable recreation enterprise. Prerequisite: RTTR 203 or instructor's permission. 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 Therapeutic Recreation (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 an opportunity to learn by experience and further professional development under the careful guidance of experienced professionals and college supervisors. May be repeated once for credit in a different setting. Prerequisites: RTTR 229 and RTTR 245 or instructor's permission.

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. Interns must complete a 480 - or 600 -hour placement ( 12 or more consecutive weeks) under the supervision of a qualified recreation specialist. Prerequisites: Senior standing in the RTTR major, completion of recreation core courses, 2.50 GPA overall as it appears in DARS (Degree Audit Reporting System) at the end of the semester preceding the internship experience. In addition, Therapeutic Recreation interns must obtain a copy of their intern supervisor's current NCTRC certificate and must complete a 600 -hour internship. P/NC only.

## 412 - Independent Study in Recreation, Tourism or Therapeutic

 Recreation (1-3 S.H.)Opportunity to work independently. Prerequisites: Junior or senior standing, preparation of proposed outline, and major advisor's permission. Grade only. Repeatable for credit up to three times.

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 or preferably higher standing, RTTR 229, and RTTR 245. Grade only.

417 -Special Topics in Recreation, Tourism or Therapeutic Recreation
(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 or preferably higher standing, RTTR 229, and RTTR 245. Grade only.

450 - Travel Study in Costa Rica (2 S.H.)
This course focuses on student-based field research to assist the municipalities of Playa Dominical and Playa Uvita to develop their natural resources, tourism products, and associated services. Students will engage in inventorying natural resources, gathering data about tourism demand and supply, and constructing a database to help local officials make better tourism-related decisions. Prior to the study, students will be exposed to basic tourism and natural resources development concepts that have applications in Playa Dominical and Playa Uvita. Post-study work will focus on report development and the assessment of other tourism products and services in Costa Rica. Prerequisites: Instructor's permission and concurrent enrollment in GEOS 450. 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 or preferably higher standing, RTTR 229, and RTTR 245 or instructor's permission. 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 or preferably senior standing, RTTR 229, RTTR 245, and RTTR 342. Grade only.

## RESIDENTIAL COLLEGE

Lourdes Hall (507-457-2500)
Ronald Elcombe, Director
FACULTY
Ronald Elcombe, Professor; BS, University of Minnesota-Twin Cities; MM, Mankato State University; PhD, 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 a unique educational opportunity in a residential setting. 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

140 - Topics in the Humanities (3. S.H.)
This course is designed to explore the nature and scope of the human experience. It will explore the search for meaning and value in human life by examining its expression in cultural forms and texts, literature, and the arts. The topics will vary and will often take an interdisciplinary approach to the subject. RESC 140 is in the University Studies Arts and Sciences Core Humanities category.

## 143 - Experience and Expression (3. S.H.)

This course is designed to provide an opportunity for creative expression through a significant experiential/studio component. It will introduce the student to the creative process and develop basic skills and aesthetic awareness. The topics will vary and will often take an interdisciplinary approach to the subject. RESC 143 is in the University Studies Arts and Sciences Core Fine and Performing Arts category.

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. RESC 150 is in the University Studies Unity and Diversity Contemporary Citizenship category.

## 151 - Concepts and Context (3 S.H.)

This course is designed to provide an opportunity for developing skill in the critical analysis of concepts and issues facing us in today's world. It will introduce the student to a systematic approach to the analysis of current issues. The topics will vary and will often take an interdisciplinary approach to the subject. Depending upon the topic, this course may be used to satisfy the University Studies Unity and Diversity Critical Analysis category.

301 - Resident Assistant Development (2 S.H.) (Repeatable as RESC 302)

This course will offer students in leadership positions an opportunity to expand their leadership skills through a series of classroom experiences. The seminar-style course will have three distinct phases. The first phase will focus on the development of the individual. The second phase centers on group development. The final phase will have the student look at community development, not only in the college setting, but also in nonacademic settings. May be repeated for credit using the course number RESC 302 (Resident Assistant Development).

# ROCHESTER EDUCATION DEPARTMENT 

University Center Rochester
East Hall, Room 201 (507-285-7488; Fax: 507-285-7170)
www.winona.edu/education/advising
Nancy Eckerson (Chairperson)
FACULTY
Nancy Ann Eckerson, Associate Professor; BS, MS, Minnesota State University-Mankato; PhD, Iowa State University; 2000 -
Margaret Hoody, Assistant Professor; BS, University of St. Thomas; MS, Minnesota State University-Mankato; EdD, University of Minnesota; 2007 -

## PURPOSE

The Rochester Education Department offers licensure programs for grades K-6 with the following middle level specialties: Communication Arts \& Literature and Social Studies. Note: When this catalog went to print, these licensures were being redesigned by the Minnesota Board of Teaching. Therefore, it is imperative that students contact the Rochester Education Department for the current licensure course requirements.

## SCIENCE EDUCATION

Pasteur Hall, Room 146 (507-457-5863)
Andrew Ferstl (Coordinator)

## FACULTY

Biology: Kimberly M. Bates, Bruno Borsari, and John Nosek, Pasteur Hall, Room 220
Chemistry: John C. Deming and Jeanne L. Franz, Pasteur Hall, Room 312
Geoscience: Jennifer L. B. Anderson, Pasteur Hall, Room 120
Physics: Andrew Ferstl, Nathan Moore, and Edward Roberts, Pasteur Hall, Room 120
Education: Melanie Reap, Gildemeister Hall, Room 152

## PURPOSE

At Winona State University, science education is an interdisciplinary effort to educate future teachers in the natural sciences. The science education faculty believes that all students should have a broad understanding of science and the nature of science. To accomplish this goal, the faculty is committed to prepare teacher education majors so that they can provide their students with a positive experience using challenging and rewarding science activities.
m Oral Flag 㫬 = Math/Critical Analysis Flag 阿 = Writing Flag

WSU offers two science education courses (SCIE 201 and SCIE 203) specifically designed for certain elementary education majors. Please consult with your advisor to determine whether these courses are required for your major. Students who are interested in teaching science in middle school or high school should see those programs in their respective areas.

- Life Sciences: BS Major - Life Science teaching (BLST) (page 59)
- Chemistry: BS Major - ACS Chemistry teaching (CHCT) (page 75)
- Earth Science: BS Major - Earth Science teaching (ESCT) (page 119)
- Physics: BS Major - Physics teaching (PHST) (page 183)
- Physical Science:

BS Major - Physical Science teaching (PPST) [Physics Department] (page 183)
BS Major - Physical Science teaching (CPST) [Chemistry Department] (page 75)

- Middle School Science: When the catalog went to print, work was underway to create a new Middle School science minor in response to changes made by the Minnesota Board of Teaching. Please contact the Science Education Coordinator for the latest information.


## COUPSE DESCRIPTIONS - SCIE

201 - Investigative Science I: Physical Science in Your Environment (4 S.H.)

An integrated science experience designed specifically for elementary education majors. Inquiry-based exploration of chemical and physical characteristics of nature in the regional and global 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. Offered every semester.

## 203 - Investigative Science III: Scientific Investigation of Your Environment (4 S.H.)

An integrated science experience designed specifically for elementary education majors. Inquiry-based laboratory and field exploration of biological and geological characteristics of our environment in the regional and global community as well as the problems facing the environment. 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 every semester as needed.

# SOCIAL SCIENCE/HISTORY (Secondary Social Studies Teaching) <br> Minné Hall, Room 212, (507) 457-5400 

Matthew Lindaman (Program Director)
Email: mlindaman@winona.edu
FACULTY
Matthew Lindaman, Assistant Professor; BA, MA, University of Northern Iowa; PhD, 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.

## PROFESSIONAL EDUCATION SEQUENCE COURSES \& OTHER REQUIREMENTS FOR TEACHING LICENSURE

Professional Education Sequence courses are required for students who wish to become licensed as 5-12 (middle and high school) teachers; these courses require formal admission to the teacher education program. For information about teacher education admission requirements and the professional education sequence, see "Teacher Education Programs" (page 214). The Professional Education sequence courses are offered by the Educational Foundations, Research, and Technology Department.

Note: When this catalog went to print, all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact your program advisor and refer to the Teacher Education Addendum (www.winona.edu/education/advising) for the latest information about program requirements whether you are (1) applying to a teacher education program, (2) currently enrolled in a teacher education program, or (3) expecting to graduate with a teacher education degree in 2010 or 2011.
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.

REQUIRED COURSES (48 S.H.)

## Economics - ECON (6 S.H.)

$\ddagger 201$ Principles of Microeconomics (3)
202 Principles of Macroeconomics (3)
Geography - GEOG (9 S.H.)
211 Economic Geography (3)
212 Physical Geography (3)
213 Cultural Geography (3)
History - HIST (12 S.H.)
Two of the following:
150 U.S. History to 1865 (3)
151 U.S. History Since 1865 (3)
214 The Mississippi River in U.S. History (3)
AND select two of the following:
$\neq 120$ Western Civilization to 1500 (3)
$\neq 121$ Western Civilization, 1500-1815 (3)
$\neq 122$ Western Civilization, 1815-Present (3)
Political Science - POLS (9 S.H.)
$\neq 120$ Introduction to American Politics (3)
$\dagger 228$ Public Service (3)
Select one of the following:
130 International Relations (3)
135 Comparative Politics (3)
150 Introduction to Political Theory (3)
315 American Political Thought (3)
321 American Presidency (3)
322 Political Parties and Pressure Groups (3)
330 Race and American Politics (3)
360 American Congress (3)
Research Methods (3 S.H.)
$\dagger$ HIST 298 Historical Methods (3)

## Sociology - SOC (3 S.H.)

## 150 Introduction to Sociology (3)

## Social Science/History Teaching Methods (6 S.H.)

EDUC 331 Teaching Social Studies in Secondary Schools (3)
HIST 431 Social Science/History Teaching Capstone (3)

## ELECTIVES (15 S.H.)

Students complete a concentration of 15 semester hours at the 300- or 400-level in one of the following disciplines: economics, geography, history, political science, sociology, or psychology. The course selections are subject to the director's approval.

## Professional Education Sequence (28 S.H) <br> EFRT 305 Human Development and Learning (4) <br> $\dagger$ EFRT 308 Human Relations and Student Diversity (3) <br> EFRT 312 Instructional Planning and Assessment (3) <br> EFRT 449 Middle School Philosophy and Organization (3) <br> EFRT 459 Professional Educator (3) <br> EDST 465 Student Teaching (12)

## ADDITIONAL LICENSURE COURSES (9 S.H.)

SPED 400 Education of Exceptional Children/Youth (3)
HERS 204 Personal and Community Health (3)
BIOL 104 Environment, Society, and Conservation (3)
$\dagger$ Course may be used to satisfy certain Unity and Diversity requirements in the University Studies Program.
$\not \ddagger$ Course may be used to satisfy Humanities or Social Science requirements in University Studies.

## SOCIAL WORK

Minné Hall, Room 228 (507-457-5420)
University Center Rochester, ST-128 (507-280-5049)
www.winona.edu/socialwork/
Cathleen Jo Faruque (Chairperson)

## FACULTY

Arlen Carey, Associate Professor; BA, MA, PhD, University of Texas-Austin; MSW, University of Central Florida, Orlando; 2004 -
Ruth A. Charles, Professor, BA, Gordon College; MSW, PhD, Syracuse University; 1997 -
Cathleen Jo Faruque, Professor; BS, Winona State University; MSW, San Diego State University; PhD, North Central University, 1997 -
Robert Jay Palmer, Assistant Professor; BS, California State University Fullerton; MSW, California State University Long Beach; 2007 -
Oswald Shanalingigwa, Assistant Professor; BA, MSW, PhD, University of Dar es Salaam, Tanzania; MSW, PhD, University of Minnesota; 2009 -

## PURPOSE

The WSU Bachelor of Social Work (BSW) degree program prepares students for beginning, generalist professional Social Work practice. The Department of Social Work is fully accredited by the Council on Social Work Education (CSWE. The department 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. At many institutions, 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 online at www.winona.edu/socialwork/ and in the Social Work Handbook, which can be purchased at the Rochester or Winona campus bookstore.

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 grade of "C" or better and an overall GPA of 2.5 in all five foundation courses, ENG 111, CMST 191, and a satisfactory evaluation in SOCW 350. In addition, students must complete the statistics requirement (STAT 110 or PSY 231) with a grade of "C" or better. Students should note that PSY 231 (Statistics) does meet requirements for admission to the Social Work major; however, it does not meet University Studies math/critical analysis requirements.

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.

$$
\text { moral Flag } \quad \text { 时 = Math/Critical Analysis Flag } \quad \text { B = Writing Flag }
$$

## Academic Standards

Students must have a grade of "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 grade of "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.

## UNVVERSITY 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 (m)

SOCW 340 Introduction to Social Work and Social Welfare (3) Math/Critical Analysis (fu)

SOCW 410 Analysis of Social Welfare Policy (3)

```
Writing(m)
    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.

## WSU-ROCHESTER

The Social Work major is available through the Path to Purple Program at WSU-Rochester. See page 38 for the articulation of this program.

## BACHELOR OF SOCIAL WORK (SOCW)

(CSWE Accredited)
64 S.H. (No Minor Required)

## REQUIRED FOR ADMISSION TO BSW PROGRAM

## English (4 S.H.)

ENG 111 College Reading and Writing (4)
Oral Communication (3 S.H.)
CMST 191 Introduction to Public Speaking (3)
REQUIRED FOUNDATION COURSES (21 S.H.)
SOCIAL SCIENCES (15 S.H.)
Psychology (6S.H.)
PSY 210 Introduction to Psychological Science (3)
PSY 250 Developmental Psychology (3)
Sociology (3 S.H.)
SOC 150 Introduction to Sociology (3)
Social Work (6 S.H.)
WSOCW 340 Introduction to Social Work and Social Welfare (3)
SOCW 350 Field Experience (3)
NATURAL SCIENCES
Biology (3 S.H.)

* BIOL 117 Human Biology (3)

STATISTICS
Statistics (3 S.H.)

* STAT 110 Fundamentals of Statistics (3) OR

解 PSY 231 Statistics (3) Note: PSY 231 does not meet University Studies math/critical analysis requirement.

## REQUIRED COURSES - SOCW (43 S.H.)

## Research (3 S.H.)

R 390 Social Work Research Process and Skills (3)
Diversity Component (3 S.H.)
355 Multicultural Issues (3) OR
361 Mexican Social Services (3) OR
435 Social Work Practice with Diverse Populations (3)
Social Work (37 S.H.)
365 Social Work Practice I - Ethics and Interviewing (3)
370 Human Behavior in the Social Environment (3)
Social Welfare Policy (3)
385 Social Work Practice II - Families and Groups (3)
400 Social Work Practicum Preparation (4)
p- 410 Analysis of Social Welfare Policy (3)
415 Social Work Practice III - Organizations and Communities (3)
475 Social Work Senior Practicum (12)
f- 480 Integrative Social Work Seminar (3)

Note: SOCW 475 is an extended application of practical experience within a social service agency; registration is restricted to senior social work majors.

## COURSE DESCRIPTIONS - SOCW

Note: 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.

## 355 - Multicultural Issues (3 S.H.)

This course prepares participants to critically examine salient multicultural issues in our community and society. Students will acquire a foundational understanding of key concepts including culture, multiculturalism, assimilation, pluralism, citizenship, immigration, and refugee status. They will also gain appreciation for how these concepts reflect global processes and impact community members' lives and society.

## 360 - Experiencing Mexican Cultures (3 S.H.)

This course uses a comparative historical approach and experiential learning to provide students an intimate understanding of Mexican cultures and cultural diversity and the ability to critically apply acquired knowledge to life in their home communities. Corequisite: SOCW 36. May be repeated for credit.

## 361 - Mexican Social Services (3 S.H.)

This course uses experiential and service learning to provide students with an intimate understanding of Mexican social service systems through the lenses of Mexican cultures. Comparative analyses enable students to grasp the importance of cultures in developing and applying effective social service interventions across diverse populations. Corequisite: SOCW 360. May be repeated for credit.

## 362 - Migration Policy (3 S.H.)

This travel study course is intended to provide participants unique insight into migration between Mexico and the United States by developing a foundational academic understanding of migration processes and policy and by providing opportunities to analyze current social issues through exchanges with U.S. and Mexican policy-makers, academic experts, migrant advocates, migrant service providers, members of communities affected by migration, families of migrants, and migrants. May be repeated once for an additional three credits.

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 social work major. 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 social work major. Limited to 25 students. 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 social work major or instructor's permission. Limited to 25 students. 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 Social Work Practice I (SOCW 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 social work major. Limited to 25 students. 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. Prerequisites: SOCW 365 and admission to the social work major. Corequisite: SOCW 385 (Winona campus); SOCW 365 (Rochester campus). Limited to 25 students. 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 to the social work major and completion of (or in the process of completing) all coursework for graduation except the Practicum and Seminar (SOCW 475). Limited to 25 students. Grade only. 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 social work major 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 social work major and successful completion of SOCW 385. This course is taken concurrently with SOCW 400. Limited to 25 students. Grade only. 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. This course meets the University Studies unity and diversity global perspectives requirement. 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. Limited to 25 students. 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. Limited to 25 students. 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

## SOCIOLOGY

Minné Hall, Room 228 (507-457-5420)
Criminal Justice: www.winona.edu/criminaljustice/
Sociology: www.winona.edu/sociology/
Mark Norman (Chairperson)

## FACULTY

Brian Aldrich, Professor; AB, Lewis and Clark College; MS, PhD, University of Wisconsin-Madison; 1976 -
Jennifer J. Nargang Chernega; Assistant Professor; BA, Concordia College (Minnesota); MA, PhD, Loyola University (Chicago); 2007 -
Helen Dachelet, Associate Professor; BA, BS, MS, Winona State University; PsyD, University of St. Thomas; 1996 -
Paul J. Munson, Associate Professor; BA, Augustana; MA, JD, University of Denver; 1999 -
J. Mark Norman, Professor; BA, MS, St. Cloud State University; PhD, South Dakota State University; 1996 -

Aurea K. Osgood, Assistant Professor; BA, Winona State University; MA, PhD, Bowling Green State University; 2007 -
Todd Paddock, Assistant Professor; BS, University of Michigan; MS, Cornell University; PhD, Indiana University; 2004 -
James W. Parlow, Assistant Professor; BS, Winona State University; MS, St. Cloud State University; 2008 -
R. Stephen Schwartz, Professor; BS, MS, University of Oklahoma; Post-Graduate Certificate, University of Zambia (University of London, external); PhD, University of Iowa; 1973 -

## PURPOSE

The purpose of the Sociology Department is to help students understand the theories, methods, and concepts of sociology and criminal justice.
Graduates with majors in Sociology or Criminal Justice will have the skills, knowledge, and experience to succeed in professional employment or further education and to be active citizens of their local and global communities.

## 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 (m)
    SOC }405\mathrm{ Models and Strategies of Intervention (3)
    SOC 474 Intervention with Families (3)
    SOC 491 Community Policing & Administration (3)
    SOC }499\mathrm{ Senior Seminar in Sociology (3)
Math/Critical Analysis (PJ)
    SOC 376 Introduction to Social Research (3)
Writing (%)
    SOC 377 Sociological Theory and Methods (3)
```

BA MAJOR - SOCIOLOGY (SOC)
45 S.H. (Minor Required)

Sociology examines how social experiences and social structure 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 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 collecting and evaluating data. Well-developed communication and research skills are highly valued in all professions for which a degree in sociology is desirable.

At the completion of the BA Sociology program, students will be able to (1) understand sociological research, (2) understand sociological perspectives, (3) communicate effectively, and (4) understand social equality and social inequality. The BA Sociology program not only contributes to the overall liberal arts education of students, but 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, and public and private research as well as graduate programs. The program emphasizes developing these skills through the integration of classroom study with supervised field instruction.

Note: Students may not major and minor in the Gerontology (SGER) option or major and minor in the General (SOC) option. Also, students may not count more than nine credits from a sociology major toward a sociology minor.

| 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.

## ADMISSION REQUIREMENTS

1. Students must complete the BA 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
$\dagger$ ENG 111 College Reading and Writing (4)
Sociology
SOC 150 Introduction to Sociology (3)
Statistics/Psychology
STAT 110 Fundamentals of Statistics (3) OR
时 PSY 231 Statistics (3)
$\dagger$ Required for admission; however, the credits are not counted in the 45 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 BA sociology courses taken at WSU.
2. Complete all sociology courses with a grade of "C" or higher.

## BA SOCIOLOGY - GENERAL OPTION (SOC)

45 S.H. (Minor Required)
The following requirements are in addition to the foundation courses:
时 SOC 376 Introduction to Social Research (3)
B SOC 377 Theory and Methods in Sociology (3)
SOC 378 Intermediate Social Research (3)
SOC 460 Internship (12)


ELECTIVES（3 S．H．）
3 S．H．must be selected from 300－or 400－level sociology courses．
BA SOCIOLOGY MAJOR－HUMAN SERVICES OPTION（SOCH）
45 S．H．（Minor Required）
In addition to the foundation courses，the following are also requirements： SOC 334 Sociology of Education（3）
时 SOC 376 Introduction to Social Research（3） SOC 378 Intermediate Social Research（3） SOC 434 Medical Sociology（3）
R SOC 435 Family Roles and Relationships（3） SOC 438 Health and Human Service Organizations（3） SOC 439 Sociology of Disability（3）
凤 SOC 450 Sociology of Aging（3） SOC 460 Internship（12）

ELECTIVES（3 S．H．）
3 S．H．must be selected from 300－or 400－level sociology courses．
BA SOCIIOGGY MINOR－GERONTOLOGY（SGER）
27 S．H．
REQUIRED COURSES（18 S．H．）
SOC 150 Introduction to Sociology（3）
SOC 385 or SOC 386 Field Experience（3）
SOC 434 Medical Sociology（3）
B SOC 435 Family Roles and Relationships（3）
F SOC 440 Dying and Death（3）
B SOC 450 Sociology of Aging（3）
Note：Field experience is required for all students except nursing students． This is not meant as a substitute for SOC 460 ．Equivalency credit may be granted；see coordinator of the gerontology minor（R．S．Schwartz）．

## ELECTIVES（9 S．H．）

Recommended electives are to be selected from 300－or 400－level sociology courses 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 | 438 | Health and Human Services Organizations（3） |
| SOC | 439 | Sociology of Disabilities（3） |

Other electives may be considered．See the coordinator of the gerontology program．

## BA 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)
```


## ELECTVES（9 S．H．）

Electives within the department must total nine S．H．and be selected from 300 －level or above in sociology．

## BS MAJOR－SOCIOLOGY：CRIMINAL JUSTICE（SCJC；SCJL）

62－63 S．H．No Minor Required

## ADMISSION REQUIREMENTS

The BS 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 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＂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 Introduction to Psychological Science（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
旳 PSY 231 Statistics（3）

Sociology
SOC 314 Juvenile Delinquency (3)
SOC 315 Criminology (3)
㫬SOC 376 Introduction to Social Research (3)
BSOC 418 Criminal Law and Procedure (3)
SOC 423 Race Relations and Minority Groups (3)

## 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 (SCIL) <br> 32 S.H.

## REQUIRED COURSES (21 S.H.)

R SOC 404 Law Enforcement Investigation and Communication (3)
SOC 417 Operations and Procedures in Law Enforcement (3)
4 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 (Peace Officer Standards \& Training) 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)
m 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 BA 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 BA Sociology program. Limited to 25 students. Grade only. Offered yearly.

## 378 - Intermediate Social Research (3 S.H.)

A "hands-on" experience in the design, implementation, interpretation, and reporting of social research. Prerequisites: SOC 150, STAT 110 or PSY 231, SOC 376, and instructor's permission. 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 BA 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.

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.

## 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 two 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. Prerequisites: SOC 150 and SOC 212. Limited to 25 students. 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.

## 455 - Family Violence (3 S.H.)

Analysis and study of family violence in America. Emphasis is on understanding causes and effects of interpersonal violence. Students will examine the response of the criminal justice system to the dilemma surrounding family violence. 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 BA 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 BA Sociology program. Prerequisites: SOC 150, STAT 110 or PSY 231, SOC 376, SOC 377, admission to the BA 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. Prerequisites: Admission to the Sociology-Criminal Justice program and instructor's permission. Limited to 30 students. 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 SociologyCriminal 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. Prerequisites: 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. Prerequisites: Admission to the Sociology-Criminal Justice Law Enforcement track, SOC 418, and instructor's permission. Limited to 20 students. Grade only. Offered yearly.

## 424 - Ethical Issues in Criminal Justice (3 S.H.)

Consideration of selected ethical issues in criminal justice organizations. Emphasis is on examining various ethical systems of practitioners and relations with various publics. Students will be given moral dilemmas and will consider their individual value system. 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. $\mathrm{P} / \mathrm{NC}$ only. Offered each semester.

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. Prerequisites: Admission to the Sociology-Criminal Justice program and instructor's permission. Limited to 20 students. 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
Carol A. Long (Chairperson)

## FACULTY

Jeanne Danneker, Assistant Professor; BS, Winona State University, MS, University of Wisconsin-La Crosse, PhD, University of Wisconsin-Madison, 2007 -
Carol A. Long, Professor; BS, MA, PhD, University of Missouri-Columbia, 1993 -
Layne Pethick, Assistant Professor; BS, Valley City State University, MA, Our Lady of the Lake University, 2009 -

## SPECIAL EDUCATION (SPED)

WSU offers three $\dagger$ undergraduate programs leading licensure by the State of Minnesota Board of Teaching:

- Learning Disabilities (LD), K-12 Licensure (109 credits) - Winona campus
- Developmental Disabilities (DD) - Mild/Moderate/Severe/Profound, K-12 Licensure (115 credits) - Winona campus
- Early Childhood Special Education (ECSE), Birth-Age Eight Licensure (120 credits) - WSU-Rochester campus $\dagger$ (See page 36.)
$\dagger$ Pending MnSCU approval of Early Childhood Special Education


## REOUIREMENTS FOR MAJORRNG IN SPECIAL EDUCATION (LD, DD, ECSE)

Applicants must meet with a Special Education advisor immediately upon making the decision to major in Special Education. The applicant must submit a completed Major Declaration Form to the Special Education Department; an advisor will be assigned at that time.

Note: Applicants must be accepted into the Teacher Education program before their Special Education application will be processed.

## REQUIREMENTS FOR TEACHER EDUCATION ACCEPTANCE

1. Minimum GPA of 2.75.
2. "B" or better in ENG 111 and CMST 191.
3. "C" or better in MATH 100 or higher mathematics. (STAT 110 recommended by the Special Education Department)
4. Official score report on all three sections of the Minnesota Teacher Licensure Examination (MTLE) Basic Skills Tests: Math, Reading, and Writing.
5. Attend a Teacher Education admission meeting and complete an Application to Teacher Education. The Teacher Education Admissions Coordinator holds admission meetings in September and January. For details, refer to www.winona.edu/education/advising/admission.html.

## REQUIREMENTS FOR SPECIAL EDUCATION ACCEPTANCE

1. Complete and submit a Special Education Department application.
2. Write an essay and schedule an admissions interview.
3. Participate in an interview with the Special Education Department.

Students must maintain a 2.75 GPA with no grade lower than "C" in any special education course, professional education sequence course, or methods course. Students who receive a grade lower than " C " must repeat the course.

Note: SPED 400, 405, 420, and 430 may be taken before admission to Teacher Education and Special Education; however, sophomore standing is required.

## 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 (m)
SPED 441 Practicum B Developmental Disabilities (15)
SPED 446 Practicum B Learning Disabilities (15)
SPED 455 Early Childhood Special Education Student Teaching (12-15)

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.

BS - SPECIAL EDUCATION, LEARNING DISABILITIES (Winona Campus)

Note: When this catalog went to print, all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact your program advisor and refer to the Teacher Education Addendum (www.winona.edu/education/advising) for the latest information about program requirements whether you are (1) applying to a teacher education program, (2) currently enrolled in a teacher education program, or (3) expecting to graduate with a teacher education degree in 2010 or 2011.
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.)
$\dagger$ Humanities elective (3)
$\dagger$ Humanities elective (3)
Social Science: PSY 210, Introduction to Psychological Science (3)

Social Science Elective：SPED 400，Education of Exceptional Children／ Youth（3）
$\dagger$ Natural Science elective（with lab）（4）
$\dagger$ Natural Science elective（3）
$\dagger$ Fine and Performing Arts elective（3） Unity and Diversity（12 S．H．）
$\dagger$ Critical Analysis elective（3）
$\dagger$ Science and Social Policies elective（3）
$\dagger$ Global Studies／Multicultural：EFRT 308，Human Relations and Student
Diversity（admission to Teacher Education required）
$\dagger$ Contemporary Citizenship／Democratic Institutions elective（3）
$\dagger$ Course to be chosen from the University Studies list of approved courses．

II．PROFESSIONAL EDUCATION SEQUENCE（16 S．H．）
＊EFRT 304 Human Development and Learning：Middle Level and K－12（4）OR
EFRT 305 Human Development and Learning：Secondary（4）
EFRT 308 Human Relations and Student Diversity（3）［see also global studies／multicultural above］
Pu EFRT 311 Instructional Planning and Assessment：Middle Level and K－12（3）OR
时 EFRT 312 Instructional Planning and Assessment：Secondary（3）
B EFRT 449 Middle Level Philosophy，Organization and Interdisciplinary Planning（3）
® EFRT 459 The Professional Educator（3）
Note：Refer to the＂Teacher Education Programs＂section of this catalog （page 214）for more information about the Professional Education Sequence for your teaching licensure program．

## III．SPECIALTY COURSES（minimum 16 S．H．） <br> EDUC 328 Teaching Reading and Language Arts I（3）AND <br> EDUC 329 Teaching Reading and Language Arts II（3）AND <br> EDUC 429 Secondary Reading and Teaching Strategies（4）OR <br> SPED 414 Multisensory／Comprehensive Language Arts Instruction I（5）AND <br> SPED 415 Multisensory／Comprehensive Language Arts Instruction II（5） <br> EDUC 334 Teaching Mathematics in the Elementary School（3） <br> SPED 425 Inclusion in Regular Classrooms（3）

Students who have a double major in Special Education and another content area should contact an advisor to design an alternative program of study．

IV．LICENSURE COURSES－Learning Disabilities（36 S．H．）
SPED 400 Education of Exceptional Children／Youth（3）
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）
M SPED 446 Practicum B－Learning Disabilities（15）
BS－SPECIAL EDUCATION，DEVELOPMENTAL DISABILITIES－ Winona Campus
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）
HERS 204 Personal and Community Health（3）

## Arts and Sciences Core（22 S．H．）

$\dagger$ Humanities elective（3）
$\dagger$ Humanities elective（3）
Social Science：PSY 210，Introduction to Psychological Science（3）
Social Science Elective：SPED 400，Education of Exceptional Children／Youth（3）
$\dagger$ Natural Science elective（with lab）（4）

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明= Oral Flag = Math/Critical Analysis Flag 昰 = Writing Flag
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$\dagger$ Natural Science elective（3）
$\dagger$ Fine and Performing Arts elective（3）
Unity and Diversity（12 S．H．）
$\dagger$ Critical Analysis elective（3）
$\dagger$ Science and Social Policies elective（3）
$\dagger$ Global Studies／Multicultural：EFRT 308，Human Relations and
Student Diversity（admission to Teacher Education required）
$\dagger$ Contemporary Citizenship／Democratic Institutions elective（3）
$\dagger$ Course to be chosen from the University Studies list of approved courses．
II．PROFESSIONAL EDUCATION SEQUENCE（16 S．H．）
＊EFRT 304 Human Development and Learning：Middle Level and K－12（4）OR
EFRT 305 Human Development and Learning：Secondary（4）
EFRT 308 Human Relations and Student Diversity（3）［see also global studies／multicultural above］
解 EFRT 311 Instructional Planning and Assessment：Middle Level and K－12（3）OR
P］EFRT 312 Instructional Planning and Assessment：Secondary（3）
B EFRT 449 Middle Level Philosophy，Organization and Interdisciplinary Planning（3）
B EFRT 459 The Professional Educator（3）
Note：Refer to the＂Teacher Education Programs＂section of this catalog （page 214）for more information about the Professional Education Sequence for your teaching licensure program．

## 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）
Students who have a double major in Special Education and another content area should contact an advisor to design an alternative program of study．

| IV．LICENSURE COURSES－Developmental Disabilities（42 S．H．） |  |  |
| :--- | :--- | :--- |
| SPED | 400 | Education of Exceptional Children／Youth（3） |
| 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 | 432 | Assessment／Methods for Moderate／Severe |
|  |  | Developmental Disabilities（3） |

Note：Early Childhood Special Education is a new program pending MNSCU approval．See page 36 for further information．

## COURSE DESCRIPTIONS－SPED

## 400 －Education of Exceptional Children／Youth（3 S．H．）

An overview to assist human service professionals in understanding the educational，vocational，and other transitional needs of individuals who are speech impaired，learning disabled，emotionally disturbed，behaviorally disordered，deaf，blind，mentally disabled，physically disabled，health impaired， or gifted．IDEA，ADA，and Section 504 as well as parent participation are stressed．Grade only．

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. Both regulated and unregulated management systems for regular education and special education students are taught. Grade 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, SPED 405, EDUC 304 or EDUC 305 or equivalent, EDUC 311 or EDUC 312 or equivalent; methods courses in math and reading recommended; concurrent enrollment in SPED 411; departmental permission. Grade only. Offered twice yearly.

## 411 - Practicum A (3 S.H.)

Introduction to practical application with guided practice in effective teaching and classroom management procedures for students with disabilities. Involves placement in a special education classroom or inclusive setting daily for three hours per day totaling 165-180 hours. Prerequisites: SPED 400, SPED 405, EFRT 304 or EFRT 305, EFRT 311 or EFRT 312, acceptance to Teacher Education and Special Education. Students must submit an application to the Student Teaching office a year in advance. P/ NC only.

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 grade12. 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. Grade only. Offered fall semester only.

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. Prerequisite: SPED 414. Grade only. Offered spring semester only.

420 - Special Education Administrative Procedures (3 S.H.) An overview of special education delivery including finances, legislation, philosophic considerations, least restrictive approaches, parent involvement, and due process safeguards. Local, state and federal rules and regulations are studied as are federal legislation including IDEA, ADA, and Section 504. Prerequisite: SPED 400 . Grade only.
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 is paid to professional collaboration with regular educators. Prerequisites: SPED 400, 405, 420, and acceptance in the Special Education Program. Grade only. Offered spring semester only.

## 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.

## 432 - Assessment/Methods for Moderate/Severe Developmental Disabilities (3 S.H.)

This course covers assessment, planning, program design and implementation, appropriate instruction, and case management for K -12 students with moderate to severe developmental disabilities. Emphasis is on
practical application, classroom management, IEP development, material selection, medical considerations, and assistive technology. Whenever possible, this class meets in a public school classroom. Prerequisites: SPED 400, 405, 410, 411, 430, and Red Cross CPR certificate. Grade only.

## 433 - Practicum DD - Moderate to Severe Developmental Disabilities (3 S.H.)

This field experience covers appropriate instruction and case management for individuals with moderate to severe developmental disabilities. Students find school or community placements, such as extended school year programs, summer camps, respite care, and group homes; however, Working or volunteering with a designated supervisor, practicum students complete a minimum of 45 contact hours. A portfolio and letter of verification are required. Prerequisite: SPED 400, instructor's approval of the practicum site, and completed WSU registration. P/NC only.

## 440 - Assessment/Methods for Students with Developmental <br> 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. Prerequisites: SPED 400, 405, 410, 411, 420, 425, and 430; departmental permission. May be taken before or concurrently with SPED 441. Grade only. Offered fall semester only.

441 - Practicum B Developmental Disabilities (15 S.H.)
This student teaching experience covers appropriate instruction and case management for students with mild to severe developmental disabilities. It is a full-time, semester-long placement in a special education classroom under the supervision of a licensed special education teacher and a University supervisor. This is the final requirement before licensure. Prerequisites: Completion of all coursework for University Studies, the Professional Education Sequence, and Special Education with the exception of SPED 440. P/NC only.

445 - Assessment/Methods for Students with Learning Disabilities (3 S.H.) Advanced skills and understanding of academic, processing and behavioral assessments, curriculum and instruction programs for students with learning disabilities. Prerequisites: SPED 410, concurrent enrollment in SPED 446, and departmental permission. May be taken before SPED 446. Grade only. Offered spring semester only.

446 - Practicum B Learning Disabilities (15 S.H.)
This student teaching experience covers appropriate instruction and case management for students with specific learning disabilities. It is a fulltime, semester-long placement in a special education classroom under the supervision of a licensed special education teacher and a University supervisor. This is the final requirement before licensure. Prerequisites: Completion of all coursework for University Studies, the Professional Education Sequence, and Special Education with the exception of SPED 445. P/NC only.

450 - Early Childhood Special Education Foundations (2 S.H.) This course is designed for teacher candidates of the early childhood special education program. The course will focus on the central concepts, tools of inquiry, and history and context of developmental delays, and disabilities and medical conditions as a foundation on which to base practice. Prerequisites: SPED 400 and 405. Grade only. Offered one semester each year at WSU-

## Rochester.

## 451 - Early Childhood Special Education Assessment, Planning, and Placement (4 S.H.)

This course is designed for teacher candidates of the early childhood special education program. The course will focus on understanding referral, assessment, planning, and placement practices specific to teaching children from birth through age six who exhibit a broad range of developmental delays, disabilities, or medical complications. Prerequisites: SPED 400 and 405. Grade only. Offered one semester each year at WSU-Rochester.

452 - Early Childhood Special Education Instructional Design and Implementation (4 S.H.)
This course is designed for teacher candidates of the early childhood special education program. The course will focus on understanding how to use individual family services plans and individual education program plans to design and implement developmentally appropriate instruction for young children with developmental delays, disabilities, or medical conditions.
Prerequisites: SPED 400 and 405. Grade only. Offered one semester each year at WSU-Rochester.
453 - Early Childhood Special Education Collaboration (2 S.H.)
This course is designed for teacher candidates of the early childhood special education program. The course will focus on understanding communication and interaction with students, families, other teachers, and the community to support student learning and well-being. Prerequisites: SPED 400 and 405. Grade only. Offered one semester each year at WSU-Rochester.

454 - Early Childhood Special Education Field Experience (2-3 S.H.) This course is designed for teacher candidates of the early childhood special education program. The course will focus on the application of the standards of effective practice in teaching children with developmental delays, disabilities, or medical conditions through a variety of early and ongoing clinical experiences with infants, toddlers, and preprimary children across a range of service delivery models. Prerequisites: SPED 400 and 405. Grade only. Offered one semester each year at WSU-Rochester.
455 - Early Childhood Special Education Student Teaching (12-15 S.H.) This course is designed for teacher candidates of the early childhood special education program. This field experience covers appropriate instruction and case management for students birth to age 6 with special needs. Prerequisites: SPED 400, 405, 410, 420, 430, 450, 451, 452, 453, 454; EDUC 416; EFRT $303,308,310,459$; AA degree or equivalent. P/NC only.

## 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 upon request.
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 upon request.

## TEACHER EDUCATION PROGRAMS

## OVERVIEW

The College of Education seeks to integrate into pre-service teacher education the knowledge, skills, and professional dispositions necessary for the teacher education graduate to be an effective educator. Pre-service teacher education 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. In addition to major content courses, teacher education majors must complete courses offered by the Department of Education (EDUC) and the Department of Educational Foundations, Research, and Technology (EFRT).

Note: When this catalog went to print, all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching. Please contact your program advisor and refer to the Teacher Education Addendum (www.winona.edu/education/advising) for the latest information about program requirements whether you are (1) applying to a teacher education program, (2) currently enrolled in a teacher education program, or (3) expecting to graduate with a teacher education degree in 2010 or 2011. You may also join the WSU Pre-Education majors group on Facebook or follow the EFRT Department on Twitter (@WSU_PreEd) regularly for current program/licensure requirement and program updates.

## 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 AS CURRENTLY DEFINED BY THE MINNESOTA BOARD OF TEACHING

Elementary Education, K-6 with Early Childhood, grades Birth-6
Elementary Education, grades K-6 (Minors, optional):
Communication Arts and Literature, grades 5-8
Mathematics, grades 5-8
Science, grades 5-8 Social Studies, grades 5-8
Business Education, grades 5-12
Keyboarding for Computer Applications Endorsement, grades K-8
Communication Arts and Literature, grades 5-8 and 5-12
Health Education, grades 5-12
Mathematics, grades 5-8 and 5-12
Music: Instrumental and Classroom, grades K-12
Music: Vocal and Classroom, grades K-12
Physical Education, grades K-12
Developmental Adapted Physical Education Pre-K-12
The following Education Department majors are available at WSU-Rochester:

- Elementary Education, grades K-6 (Minors, optional): Communication Arts and Literature 5-8 Specialty Social Studies 5-8 Specialty
- Special Education, Early Childhood (birth to age 6)

All other majors are available only on the Winona campus. See pages 36 and 37 for the articulation of the teacher education programs available at the WSU-
Rochester campus.

Science:
Chemistry, grades 9-12 + General Science 5-8
Chemistry, grades 9-12
Earth, grades 9-12 + General Science 5-8
Earth, grades 9-12
Life, grades 9-12 + General Science 5-8
Life, grades 9-12
Physics, grades 9-12 + General Science 5-8
Physics, grades 9-12
Social Studies, grades 5-12
Special Education
Developmental Disabilities, grades K-12
Learning Disabilities, grades K-12
Teaching English as a Second Language, grades K-12
Visual Arts, grades K-12
World Languages Spanish, grades K-12

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 the application process. (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.)

Current minimum admission criteria, which will be verified in the application process, include:

1. 30 semester hours of completed credit of which no more than two 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.

Note: Students who do not meet the 2.75 GPA may request to be considered under the alternate GPA option. The alternate GPA calculation is based upon the last 30 semester credits completed. The calculation must include all credit hours 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 Minnesota Teacher Licensure Examination (MTLE) Basic Skills Tests: Math, Reading, and Writing. 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.) For more information about registering for these tests, contact your advisor.
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. The $\$ 20$ fee for this exam will be billed to the student's tuition account.
8. The WSU DARS (Degree Audit Reporting System) will be used to verify grades, course completions, and cumulative GPA totals.
9. Transfer transcripts will be obtained from the WSU Office of Admissions.
10. Affirmation of a record of good citizenship on the completed admission form.

## Notes:

- Each semester, the number of applicants admitted to teacher education is limited. Additional criteria are used to determine admission to the program if the number of applicants exceeds the number of available seats.
- 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.

Assistance plans will likely draw upon services such as those provided by the Counseling Center, the Writing 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

1. 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.

2. Teacher education students must maintain at least a 2.75 GPA in order to be placed in student teaching. Teacher education students who do not meet this GPA requirement may not student teach until they meet the 2.75 requirement.
3. 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 student assistance plan commitments.
- Breach of ethical responsibilities, as stated in the Minnesota Code of Ethics for Teachers (https://www.revisor.mn.gov/rules/?id=8700.7500). 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 appeals process outlined in the WSU Teacher Education Appeals Form, which is available in the Office of the Dean of the College of Education.


## STUDENT TEACHING

Requirements
Student teaching is required for all teacher education programs and is done during the final semester at WSU. 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 104).

## 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 teacherwill 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 Minnesota Teacher Licensure
Examination（MTLE）basic skills，content，and pedagogy tests．
WSU is in full compliance with Title II regulations and its reporting structure．Based on scores reported for the 2007－2008 reporting period， WSU＇s institutional pass rate is $94 \%$ ．The statewide pass rate was $91 \%$ in 2007－2008．

During the 2007－2008 academic year，a total of 873 students were enrolled in the WSU teacher preparation unit．Of those students， 249 were in supervised student teaching experiences，which required a total of 640 hours in 16 weeks．The student－faculty ratio in supervised student teaching experiences is 249 students to 29 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（Gildemeister Hall，Room 105）regarding any changes in licensure requirements for particular states．

## ELEMENTARY TEACHNG LICENSES

Note：When this catalog went to print，all Winona State University teacher education programs were being redesigned to reflect new licensure requirements from the Minnesota Board of Teaching．Please contact your program advisor and refer to the Teacher Education Addendum （www．winona．edu／education／advising）for the latest information about program requirements whether you are（1）applying to a teacher education program，（2）currently enrolled in a teacher education program，or（3） expecting to graduate with a teacher education degree in 2010 or 2011．You may also join the WSU Pre－Education majors group on Facebook or follow the EFRT Department on Twitter（＠WSU＿PreEd）regularly for current program／licensure requirement and program updates．

Students must check with the WSU Education Department for current information on these changes．In general，the licensure areas are as follows：
－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．
－Elementary Education（K－Grade 6）：A teacher of elementary education is authorized to design，implement，and evaluate developmentally appropriate learning experiences for young children from kindergarten through grade 6 in a variety of public school K－6 settings．The 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 an Elementary Education K－6 Licensure．
Optional minors are available in grades 5－8 content specialty areas in Math，Science，Social Studies，or Communication，Arts and Literature． A teacher with this license is certified to design，implement，and evaluate developmentally appropriate learning experiences for students in grade 5 through grade 8．A teacher with the 5－8 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．
－Special Education，Early Childhood（Birth to age 6）：A teacher with this license is certified to design，implement，and evaluate developmentally appropriate learning experiences for young children from birth through age 6 in special education settings．Teachers collaborate with families， colleagues，and related service personnel to enhance the learning of young children．（WSU－Rochester campus）

## K－12 and 5－12（SECONDARY）TEACHING LICENSES

For detailed information regarding the major content course requirements in secondary teaching majors，please refer to the associated department or program in this catalog．Secondary teaching majors are required to complete the Professional Education Sequence in addition to their major content course requirements．

[^5]BS Major－Chemistry（CHCT）
BS Major－Communication Arts and Literature（CALT）
BS Major－Earth Science（ESCT）
BS Major－Life Science（BLST）
BS Major－Mathematics（MTHT）
BS Major－Physics（PHST）
BS Major－Health Promotion－School Health（HPST）
BS Major－Social Science／History（SSHT）

## 9－12 Majors（Teaching）

BS Major－Chemistry（CHCT）
BS Major－Life Science（BLST）
BS Major－Physical Science（CPST）（Offered by the Chemistry Department．）
BS Major－Physical Science（PPST）（Offered by the Physics Department．）

## K－12 Majors（Teaching）

BS Major－Art（ARTT）
BS Major－Music（MUSI or MUSV）
BS Major－Physical Education（PET）
BS Major－Spanish（SPNT）
BS Major－Special Education：Learning Disabilities（LD）
BS Major－Special Education：Developmental Disabilities（DD）
BS Major－Teaching English as a Second Language（ESLT）

## PROFESSIONAL EDUCATION SEQUENCE FOR K－12 AND 5－12 LICENSURE （32－36 S．H．）

Note：Professional Education Sequence courses require formal admission to the teacher education program．For teacher education admission requirements，see page 215.

EFRT 304 Human Development and Learning：Middle Level and K－12（4）OR
EFRT 305 Human Development and Learning：Secondary（4）
EFRT 308 Human Relations and Student Diversity（3）
昀 EFRT 311 Instructional Planning and Assessment：Middle Level and K－12（3）OR
㽖 EFRT 312 Instructional Planning and Assessment：Secondary（3）
EDUC 429 Secondary Reading and Teaching Strategies（4）
BEFRT 449 Middle Level Philosophy，Organization and Interdisciplinary Planning（3）
■EFRT 459 The Professional Educator（3）
EmST 465 Student Teaching－Senior High School（12－16）
In addition to the professional education sequence courses，teacher education majors are also required to take these two classes：
HERS 204 Personal and Community Health（3）
SPED 400 Education of Exceptional Children／Youth（3）

## PROFESSIONAL EDUCATION SEQUENCE FOR ELEMENTARY EDUCATON LICENSURE（29－32S．H．）

Note：Professional Education Sequence courses require formal admission to the teacher education program．For teacher education admission requirements，see page 215.

EFRT 303 Human Development and Learning：Elementary Education with Early Childhood Emphasis（4）OR
EFRT 304 Human Development and Learning：Middle Level and K－12（4）
EFRT 308 Human Relations and Student Diversity（3）
PJ EFRT 310 Instructional Planning and Assessment：Elementary Education with Early Childhood Emphasis（3）
to EFRT 311 Instructional Planning and Assessment：Middle Level and K－12（3）
Fo EFRT 449 Middle Level Philosophy，Organization and Interdisciplinary Planning（3）
B－EFRT 459 The Professional Educator（3）
EDST 460 Student Teaching－Elementary Education with Early Childhood （ $1-16$ ）OR
m EDST 464 Student Teaching－K－6 Middle Level（16）
In addition to the professional education sequence courses，teacher education majors are also required to take these two classes：
HERS 204 Personal and Community Health（3）
SPED 400 Education of Exceptional Children／Youth（3）

## LICENSURE REQUIREMENTS FOR POST－BACCALAUREATE STUDENTS

A Bachelor of Arts or Bachelor of Science graduate who holds a degree from WSU or another accredited institution may qualify for teacher licensure by satisfying the following requirements：

1. Meet Teacher Education Program admission requirements.
2. Complete all additional coursework in one of the Bachelor of Science teaching majors with a cumulative GPA of 2.75 or better.
3.Pass licensure required exams.

Generally, it takes about $21 / 2$ years of full-time coursework to add onto a non-teaching Bachelor's degree and attain the qualifications needed for a teaching license. When post-baccalaureate students apply to WSU and submit their official transcripts, they will receive a degree audit report (DARS) listing the classes needed.

The only Master's degree teacher licensure program offered through the Winona campus is in Special Education. Please refer to the WSU graduate catalog for more information about this program
(www.winona.edu/graduatestudy). WSU-Rochester offers a graduate level Teacher Licensure Collaboration Program. To be eligible for this program, the applicant must have a Bachelor's degree in the "content area" of the teacher education license in which he or she is interested. This program is only for secondary teaching license (grades 5-12). Details about this program are listed in the WSU graduate catalog
(www.winona.edu/graduatestudy).

## 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 (m)
EDST 460 Student Teaching - Elementary Education with Early

Childhood Emphasis (1-16)
EDST 464 Student Teaching/K6-Middle Level (1-16)
EDST 465 Student Teaching - Senior High School K-12
Specialty (1-16)
EDST 469 Global Student Teaching (1-18)
Math/Critical Analysis (阿)
EFRT 310 Instructional Planning and Assessment: Elementary Education with Early Childhood Emphasis (3)
EFRT 311 Instructional Planning and Assessment: Middle Level and K-12 (3)
EFRT 312 Instructional Planning and Assessment: Secondary (3)
Writing ( $\mathrm{R}_{\mathrm{m}}$ )
EDUC 410 Foundations of Early Childhood Education (3)
EFRT 449 Middle Level Philosophy, Organization, and Interdisciplinary Planning (3)
EFRT 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 are listed on page 70.)

## COURSE DESCRIPTIONS

See the following sections of this catalog for descriptions of the teacher education courses cited above:

- EDUC courses - Department of Education (page 98)
- EFRT and EDST courses - Department of Educational Foundations, Research, and Technology (page 99)


## THEATRE AND DANCE

Performing Arts Center, Room 215 (507-457-5230)
www.winona.edu/thad
Gretchen Cohenour (Dance Program Director)
Peggy Sannerud (Theatre Program Director)

## FACULTY

Gretchen Cohenour, Professor; BA, Rockford College; MFA, University of Wisconsin-Madison; 1989 -
Vivian Fusillo, Professor; BA, Marymount College; MA, Stephen F. Austin State University; 1968 -
Peggy Sannerud, Associate Professor; BS, Northwestern University; MFA, University of Minnesota-Twin Cities; 2003 -

## PURPOSE

The Department of Theatre and Dance (THAD) offers the BA 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 who are 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 3.40 on a 4.00 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 students are normally required to enroll in THAD 090 (THAD Showcase) every semester, and to graduate, they are required to earn a grade of " P " in the course six times during their academic career unless excused by the department chairperson. Dance and theatre minor students are normally required to earn a grade of " P " in the course four times unless excused by the department chairperson; one of the dance minor's enrollments must be in the student's final 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 THAD 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 090 and 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 23. 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 a 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(m)
    THAD 307 Design II Scenery and Costumes (3)
    THAD }309\mathrm{ Design II Lighting and Sound (3)
Math/Critical Analysis(F-)
    THAD 215 Introduction to Laban Movement Analysis (3)
    THAD 321 Play Directing (3)
```

BA 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 (3)
119 Play Analysis (3)
131 Performance I (3)
207 Design Communication (3)
B 210 Theatre History/Dramatic Literature I (3)
231 Performance II (3)
291 Rehearsal and Performance (1; 6 S.H. required)
幽 307 Design II Scenery and Costumes (3) OR
309 Design II Lighting and Sound (3)
B 310 Theatre History/Dramatic Literature II (3)
Po 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 REQUREMENTS (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.

## BA MINOR - THEATRE (THTR)

20 S.H.

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.

## 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 (3)
119 Play Analysis (3)
131 Performance I (3)
207 Design Communication (3) OR
231 Performance II (3)
B 210 Theatre History/Dramatic Literature I (3) OR
B 310 Theatre History/Dramatic Literature II (3)
291 Rehearsal and Performance ( $1 ; 2$ S.H. required)

## EIECTVES (3 S.H.)

3 S.H. from 300 - or 400 -level THAD courses for which prerequisites have been met.

## BA MINOR - DANCE (DANC)

26 S.H.

## REQUIRED COURSES - THAD (17 S.H.)

## Theory (9 S.H.)

$\dagger 090$ THAD Showcase (0)
115 Dance Appreciation (3)
131 Performance I (3)
322 Dance Composition (3)
$\dagger$ 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" on page 219).

## TECHNIQUE (8 S.H.)

Must include at least 5 S.H. in 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)
314 Anatomical Kinesiology (3)
370 Kinesiology/Biomechanics (4)
Theatre and Dance - THAD
107 Introduction to Technical Theatre (3)
137 Dance Repertory I (1-2)
141 Oral Interpretation (3)
151 Tap Dance (1)
195 Topics in Theatre (1-3)
215 Introduction to Laban Movement Analysis (3)
231 Performance II (3)
237 Dance Repertory II (1-2)
295 Making Interdisciplinary Connections (3)
331 Performance III (3)
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 a total of FOUR 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 and Sport Science - PESS
112 Folk/Square Dance (1)
120 Ballroom Dance (1)
144 Contemporary Activities (1) (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 (4575665). Dance minors are required to document their development while at WSU by maintaining chronological video files 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 DESCRITTONS - 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 six enrollments normally required of theatre majors; four 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 is intended for nontheatre majors; may be repeated up to six S.H. Offered each semester.

107 - Introduction to Technical Theatre (3 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. P/NC option. 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.

195 - Topics in Theatre (1-3 S.H.)
Lower-division version of THAD 395 (Topics in Theatre). 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, attendance at productions, and additional course fees. This course does not satisfy the "Topics" requirement in the theatre major curriculum. Concurrent registration in THAD 090 required unless excused by the department. Prerequisite: Theatre major or minor or instructor's permission. Offered yearly.

## 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.

215 - Introduction to Laban Movement Analysis (3 S.H.)
Introduction to the theoretical and experiential movement system of Laban Movement Analysis. Provides a framework for observing, describing, and analyzing human movement patterns and understanding non-verbal actions and communication. This course satisfies the requirements for University Studies Critical Analysis. Prerequisite: None. Grade only. 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 occasionally.

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 (THAD 155) 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 (THAD 157) 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 alternate years.

## 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 six S.H.; Theatre minors to two S.H. Concurrent registration in THAD 090 required unless excused by the department. Grade only. Offered each semester.

295 - Making Interdisciplinary Connections (3 S.H.)
Interdisciplinary experience involving one or more artistic media incorporating content from diverse disciplines across campus. Topics vary. This course satisfies the requirements for University Studies Fine and Performing Arts. Prerequisite: None. Grade only. Offered yearly.

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 (THAD 255) 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 (THAD 257) 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 (THAD 355) 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 (THAD 357) 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 eight S.H. Prerequisite: Instructor's permission. Grade only. Offered by arrangement.

# WAR, PEACE, AND TERRORISM 

Minné Hall, Room 329 (507-457-5475)
Email: philosophy@winona.edu
Kevin Possin (Acting Director)

## PURPOSE

The War, Peace, and Terrorism minor is an interdisciplinary program administered by the Philosophy Department; the program includes courses offered by various departments and faculty, including English, Global Studies, History, Philosophy, Political Science, and Sociology.

> "War is hell." - William Tecumseh Sherman "War is only a cowardly escape from the problems of peace." - Thomas Mann
"For it isn't enough to talk about peace. One must believe in it. And it isn't enough to believe in it. One must work at it." - Eleanor Roosevelt

The 2001 bombing of the World Trade Center and ongoing conflicts in the Middle East and Africa continually remind us that war, terrorism, and the elusiveness of peace are among the deepest problems facing humankind throughout history. The War, Peace, and Terrorism minor provides students with an opportunity to study the nature, implications, and ethical foundations of war, peace, and terrorism. Drawing on expertise from various departments, this minor explores the issues from many different perspectives including historical, legal, moral, political, philosophical, social, cultural, religious, and psychological.

SOC 430 Political Sociology: Conflict and Peace (3)
HIST 396 History of Terrorism (3)
PHIL 340 Just-War Tradition (3)
One of following courses (others may serve as electives): HIST 447 America in the Vietnam War Era (3)
HIST 479 Civil War and Reconstruction (3) HIST 440 World War II (3)

ELECTIVES (6 S.H.)
GS 200 Introduction to Global Studies (3)
HUM 140 Approaches to Film: The War Film (3)
HIST 398 Topics in History: America at War (3)
HIST 335 The Holocaust (3)
HIST 412 French Revolution and Napoleon (3)
HIST 417 Hitler and Nazi Germany (3)
POLS 201 Politics and Violence (3)
POLS 225 Ethnic Conflict and Nationalism (3)

BA MINOR - WAR, PEACE, AND TERRORISM (WPT)
21 S.H.

## REOUIRED COURSES (15 S.H.)

PHIL 290 Introduction to War, Peace \& Terrorism (3)

# WOMEN'S AND GENDER STUDIES 

Minné Hall, Room 329 (507-457-5460)
www.winona.edu/womensstudies
Tamara Berg (Director)
FACULTY
Tamara Berg, Associate Professor; BA, University of Wisconsin; MA, PhD, Indiana University, Bloomington; 1995 -
Linda D'Amico, Associate Professor; BS, MA, PhD, Indiana University, Bloomington; 2000 -
April Herndon, Assistant Professor; BA, MA, Radford University; PhD, Michigan State University; 2006 -

## PURPOSE

Women's and Gender Studies is a multidisciplinary program that looks at the lives and experiences of women and men through many different disciplineshistory, 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 $\mathrm{P} / \mathrm{NC}$ 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 Studies Program offers the following flag courses in the University Studies Program:

## Math/Critical Thinking ( P )

WAGS 348 Topics in Women's and 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.

## BA MINOR - WOMEN'S AND GENDER STUDIES (WOMS) <br> 23-25 S.H.

## CORE COURSES - WAGS (14 S.H.)

148 Introduction to Women's and Gender Studies (3)
220 Power, Privilege and Gender (3)
373 Feminist Theory/Process (3)
420 Field Experience (3)
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:

ART 252 Survey of Women Artists (3)
BUED 350 Quality of Work Life (3)
CAST 301 Perspectives on Child Maltreatment and Child Advocacy (3)
CAST 302 Global Child Advocacy Issues (3)
CAST 401 Professional and System Responses to Child Maltreatment (4)
CAST 402 Responding to the Survivor of Child Abuse and Survivor Responses (4)
CAST 403 Child Exploitation, Pornography, and the Internet (3)
CAST 404 Sociology of Child Poverty (3)
CAST 405 Gender, Violence, and Society (4)
CAST 406 Child Advocacy Research Studies (3)
CAST 407 CAST Capstone Experience (4)
CMST 281 Intercultural Communication (3)
CMST 289 Gender and Communication (3)
GS 435 Indigenous Social Movements in Latin America (3)

* HIST 315 Women in U.S. History (4)

NURS 260 Women's Health Issues (3)
PHIL 130 Moral Problems (3)
ß POLS 450 Feminist Political Theory (3)
PSY 275 Psychology of Women and Gender (3-4)
PSY 424 Women and Mental Health (3)
SOC 35 Family Roles and Relationships (3)
WAGS 234 Gender and Latin American Society through 20th Century Literature (3)
WAGS 235 Gender and Social Justice Issues in Latin America (3)
时 WAGS 348 Topics in Women's and Gender Studies (3)
WAGS 405 Gender, Violence, and Society (4)

## EEECTVES (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 and gender studies elective credit. The following is a partial list of courses approved as WAGS electives:
m HIST 315 Women in U.S. History
MUS 122 History of Rock Music (3)
NURS 260 Women's Health Issues (3)

PHIL 130 Moral Problems (3)
PHIL 240 Philosophy of Science (3)
m SOCW 340 Introduction to Social Work and Social Welfare (3)
b SOCW 380 Social Welfare Policy (3)
For a complete list of approved WAGS electives, see the Women's and Gender Studies Program Director.

## COURSE DESCRIPTIONS - WAGS

148 - Introduction to Women's and 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.
234 - 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 - Gender 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.

## 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 and 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: WAGS 120, 220 or instructor's permission. Offered at least once a year.

## 405 - Gender, Violence, and Society (4 S.H.)

This course introduces students to the roots of gender-based violence along with the political and cultural structures that perpetuate it; the course also explores how this violence might be brought to an end. Students will
investigate the local and global impact of violence; how gendered violence intersects with race, class, sexuality, age, physical ability, and the oppressions that are linked to these identities; and strategies for addressing genderbased violence.

420 - Field Experience (3-6 S.H.)
The Field Experience gives students an opportunity to explore genderrelated 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: Enrollment in Women's and Gender Studies minor.

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: WAGS 148, WAGS 220, WAGS 348, WAGS 420, and Women's and Gender Studies minor status or instructor's permission.

Beckry Abdel-Magid, Professor, Composite Materials
Engineering; BS, University of Khartoum; MS, PhD, University of Wisconsin; 1990 -
Sarah Agee, Residence Life; BA, Southeastern College; 2008-
Leslie Albers, Student Support Services; BS, MS, Winona
State University; 2007 -
Brian Aldrich, Professor, Sociology; AB, Lewis and Clark College; MS, PhD, University of Wisconsin; 1976 -
Stephen T. Allard, Associate Professor, Geoscience; BS,
MS, University of New Hampshire; PhD, University of Wyoming; 2002 -
Dawn Anderson, Professor, Health, Exercise and
Rehabilitative Sciences; BA, University of Minnesota;
MS, Iowa State University; PhD, Ball State University,
Muncie (IN); 1992 -
Jennifer L. B. Anderson, Associate Professor, Geoscience;
BS, University of Minnesota; ScM, PhD, Brown
University; 2005 -
Jill Anderson, WSU Children's Center; BS, MS, Winona State University; 1999 -
Jodi Anderson, Residence Life; BS, Winona State University; 2006 -
Nicole Anderson, Assistant Professor, Computer Science; BS, MS, University of Iowa; PhD, University of Utah; 2008-
Phillip Appicelli, Professor, Health, Exercise and
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James Armstrong, Professor, English; BA, Northwestern
University; MFA, Western Michigan University; PhD,
Boston University; 1999 -
Marzie Astani, Professor, Business Administration; BA,
Tehran University; MS, PhD, Iowa State University of Science and Technology; MBA, Central Michigan University; 1987 -
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Tourism and Therapeutic Recreation; BS, Middle East
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Susan Ballard, Professor, Nursing; BSN, University of
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Mark Bambenek, Intramural Director; BS, MS,
University of Wisconsin; 1988 -
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Matthew Benson, COMTEC; BS, Winona State University; 2003 -
Tamara Berg, Associate Professor, Women's and Gender Studies; BA, University of Wisconsin; MA, PhD, Indiana University, Bloomington; 1995 -
J. Lawrence Bergin, Professor, Accounting; BS, MBA, Northeastern University; 1981 -
Lori Beseler, Associate Registrar; BA, University of Wisconsin; 2004 -
Susan Beseler, Assistant Professor, Mathematics and Statistics; BS, Winona State University; ME, University of Wisconsin-La Crosse; 2005 -
JoEll W. Bjorke, Professor, Business Administration; BS, St. Cloud State University; JD, William Mitchell College of Law; 1981 -
Cynthia Bork, Associate Professor, Nursing; BSN, College of St. Teresa; MS, Winona State University; EdD, St. Mary's University of Minnesota; 1993 -
Gaylia Borror, Professor, Counselor Education; BS, Davis \& Elkins College; MS, West Virginia University; PhD, University of Iowa; 1989 -
Bruno Borsari, Assistant Professor, Biology; DAgSci, University of Bologna (Italy); PhD, University of New Orleans; 2005 -
Matthew Bosworth, Professor, Political Science; BA, Johns Hopkins University; MA, PhD, University of Wisconsin; 1997 -
Michael Bowler, Associate Professor, Global Studies; BA, University of Notre Dame; MA, MSc, PhD, Syracuse University; 2004 -
Emmanuel Brako, Professor, Biology; BVM, University of

Louisiana State University and A \& M College; 1989 Rob Brault, Associate Professor, English; BA, Macalester College; PhD, University of Minnesota; 2000 -
Thomas Bremer, Dean of the Library; BA, MA,
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Education; BS, Guilford College; MA, Wake Forest
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University of Wisconsin-Whitewater; MS, University
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Eric Brisson, Assistant Professor, Music; BS, McGill
University; BM, MM, DMA, Universite de Montreal; 2005 -
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Center; BA, University of Wisconsin; MS, PhD,
University of Utah; 2000 -
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and Statistics; BS, North Dakota State University; MA,
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Elizabeth Burke, Professor, Counseling Center; BA,
St. Norbert College; MA, St. Mary's University of
Minnesota; 1979 -
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University; MA, MPhil, PhD, Columbia University; 2000 -
Marianna Westbrook Byman, Professor, History; BA,
Baylor University; MS, Winona State University; DA, University of North Dakota, 1988 -
Seymour Byman, Professor, History; BA, University of
Illinois; MA, Roosevelt University; PhD, Northwestern University, 1970 -
Douglas Callaban, Professor, Physical Education and
Sport Science; BS, MA, University of Denver; PhD,
University of Kansas, 2000 -
John Campbell, Professor, History; BA, Wesleyan
University; MA, PhD, University of Minnesota; 1996
Jane Carducci, Professor, English; BA, Colorado College;
MA, PhD, University of Nevada-Reno; 1992 -
Arlen Carey, Associate Professor, Social Work; BA, MA,
PhD , University of Texas-Austin; MSW, University of
Central Florida, Orlando; 2004-
Ruth Cbarles, Professor, Social Work; BA, Gordon
College; MSW, PhD, Syracuse University; 1997 -
Jennifer J. Nargang Chernega, Assistant Professor,
Sociology; BA, Concordia College (Minnesota); MA,
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Deana Chupp, Customized Training and Outreach; BA, Carleton College; MBA, University of Michigan; 2009 -
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Rockford College; MFA, University of Wisconsin; 1989 -
Vittorio Colaizzi, Assistant Professor, Art; BA, Mary
Washington College, Fredericksburg, VA; MFA,
Virginia Commonwealth University, Richmond; PhD,
Virginia Commonwealth University; 2007 -
Marianne K. Collins, Assistant Professor, Marketing; BS,
Colorado State University; MPA, Harvard University; 2008 -
Karen Csajko, Associate Professor, Political Science; BA,
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California; 1996-
Debra Cumberland, Associate Professor, English; BA,
Carleton College; MA, PhD, University of NebraskaLincoln; 2002 -
Sarah Curtin, Admissions Counselor; BA, Winona State

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Helen Dachelet, Associate Professor, Sociology; BA, BS, MS, Winona State University; PsyD, University of St. Thomas; 1996 -
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Jeanne Danneker, Assistant Professor, Special Education;
BS, Winona State University, MS, University of
Wisconsin-La Crosse, PhD, University of WisconsinMadison, 2007 -
Susan Davies, Associate Professor, Nursing; BSc,
University of Southhampton (UK); MSc, University of Surrey (UK); PhD, University of Sheffield (UK); 2009

Joyati Debnath, Professor, Mathematics and Statistics;
BSc, MSc, Jadavpur University; MS, PhD, Iowa State University; 1989 -
Narayan Debnath, Professor, Computer Science; BS,
MPhil, Calcutta University; MS, Visva Bharati
University; MS, East Carolina University; MS, Ohio
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Ronald L. Decker, Associate Professor, Marketing; BS, BA, The University of Denver; MS, Central Missouri State University; PhD, University of Iowa; 2008 Vicki Decker, Director, Career Services; BA, MS, Winona State University; 1988 -
Michael D. Delong, Professor, Biology; BS, University of Southern Mississippi; MS, Memphis State University; PhD, University of Idaho-Moscow; 1992 -
John C. Deming, Assistant Professor, Chemistry; BS,
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Keith Dennehy, Professor, Composite Materials
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Russell Dennison, Professor, Library; BA, Central
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Shashi Dewan, Professor, Business Administration; BS, Malviya Regional Engineering College; MBA, PhD, Indian Institute of Technology; 1988-
Richard A. Deyo, Professor, Psychology; BS, Viterbo College; MA, PhD, Bowling Green State University; 1990 -
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Toby Dogwiler, Associate Professor, Geoscience; BA,
Wittenberg University; MSc, Mississippi State
University; PhD , University of Missouri, Columbia; 2002 -
Darrell Downs, Professor, Political Science; BA,
BS, Montana State University; MS, Oregon State
University; PhD, Colorado State University; 1992 -
Suzanne Rhodes Draayer, Professor, Music; BM, Furman
University; MS, George Peabody College of Vanderbilt
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Park, 1993 -
Jeffrey Draskoci-Jobnson, Associate Professor,
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University of Notre Dame; 1989 -
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Marymount College; MA, Stephen F. Austin State University; 1968 -
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Timothy Gegg-Harrison, Professor, Computer Science; BA, University of Missouri-Columbia; MS, Ohio State University; PhD, Duke University; 1992 -
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Lisa Glueck, Associate Professor, Communication Studies; BA, MA, Washington State University; PhD, University of Wisconsin; 1993 -
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Edward Guernica, Associate Professor, Political Science;
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Mary Guy, Professor, Educational Leadership; BA,
George Washington University; MA, Longwood
College; PhD, Virginia Polytechnic Institute; 1993 -
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Montana; 2008 -
David E. Hamerski, Professor, Physics; BS, St.
Mary's University of Minnesota; MS, University of Minnesota; PhD, Washington University; 1961 -
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University of Minnesota; 1981 -
Linda Heath, Professor, Nursing; BS, MSN, University of Wisconsin; PhD, Walden University; 1993 -
Sara Hein, Associate Professor, Chemistry; BS,
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Donna Helble, Professor, Education; BA, Simpson
College, Iowa; MS, Winona State University; EdD, University of Northern Colorado; 1984 -
Peter V. N. Henderson, Professor, History; BA, JD,
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University of Northern Colorado, Greely; PhD,
University of Southern Mississippi; 1996-
Sandra Herron, Assistant Professor, Nursing; BS, MS,
Winona State University; 2008 -
Andrew Higl, Assistant Professor, English; BA, John
Carroll University; MA, PhD, Loyola University; 2009
Alexander Hines, Director, Inclusion and Diversity; BS,
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Jo Hittner, Assistant Professor, Counselor Education;
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Kurt Hohenstein, Associate Professor, History; BA,
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Drake Hokanson, Professor, Mass Communication; BA, MA, University of Iowa; 1997 -
John Holden, Assistant Professor, Psychology; BA, MA,
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Larry Holstad, Director of Athletics; BS, Winona State
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Karen Holte, WSU Children's Center; BT, Winona State
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James F. Hurley, Associate Professor, Accounting; BS,
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Matthew Hyle, Professor, Economics; BA, Indiana
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Colette Hyman, Professor, History; BA, Brown
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Frederic Ihrke, Professor, Accounting; BS, Bemidji
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Sudharsan Iyengar, Professor, Computer Science; BE,
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University and A \& M College; 1989 -
Nicholas Jaeger, University Advancement; BA, MS,
Winona State University; 2006 -
Joe Jackson, Associate Professor, Library; BA, University of Minnesota; BA, University of Lyon (France); MS, Simmons College; MA, Arizona State University; 1997 -
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Kenneth Janz, Chief Information Officer; BSEd, BS,
Dickinson State University; MS, North Dakota State
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Carole Jenson, Assistant Professor, Nursing; BS, MS,
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John Johanson, Professor, Psychology; BS, University of South Dakota; MA, PhD, University of Nebraska at Omaha; 1999-
Craig Johnson, Director, WSU-Rochester; BS, University of Wisconsin; MA, Tulane University; MA, University of Minnesota; 2007 -
J. Paul Johnson, Professor, English; BS, Valley City State University; MA, University of North Dakota; PhD, University of Minnesota; 1987 -
Karen Johnson, Dean, Student Life and Development; BA, University of Saskatchewan; MA, University of Northern Colorado; PhD, University of Southern Mississippi; 1998 -
Lola Johnson, Professor, Nursing; BSN, Minnesota State University-Mankato; MSN, Washington University; PhD, Rush University; 1989 -
Veronica Johnson, Assistant Professor, Counselor
Education; BA, MA, EdD, University of Montana; 2009 -
Sally Johnstone, Vice President for Academic Affairs;
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Baekkyoo (Brian) Joo, Assistant Professor, Business
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Mary S. Kesler, Professor, Psychology; BMEd, MA,
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Cindy Killion, Professor, Mass Communication; BJ,
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Chan-Wung Kim, Professor, Finance; BA,
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Robert Kopitzke, Professor, Chemistry; BS, MS, PhD,
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Ditlev Larsen, Associate Professor, English; BA, University of Aalborg, Denmark; MA, St. Cloud University; PhD, University of Minnesota-Twin Cities; 2003-
Kendall Larson, Associate Professor, Library; BA,
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Michael Leaf, Associate Professor, Physical Education and Sport Science; BA, St. Mary's College of
Minnesota; BS, MA, MS, Winona State University; 1987 -
Frederick Lee, Professor, Political Science; BA, University of New Orleans; MA, PhD, University of Michigan; 1992-
H. Vernon Leighton, Professor, Library; BA, Bucknell University; MS, University of Illinois; MS, University of Minnesota; 1990 -
Steven Leonhardi, Professor, Mathematics and Statistics; BA, Concordia College; MA, PhD, University of Wisconsin; 1996-
Angie Lepsch, Preschool Teacher, WSU Children's Center; BS, Winona State University; 1998 -
Chi-Cheng Lin, Professor, Computer Science; BS, National Chiao-Tung University; MS, University of Minnesota-Duluth; PhD, University of Pittsburgh; 1997 -
Kara Lindaman, Associate Professor, Political Science; BA, MA, University of Northern Iowa; PhD, University of Kansas; 2006 -
Matthew Lindaman, Associate Professor, History; BA, MA, University of Northern Iowa; PhD, University of Kansas, 2002 -
Daniel Lintin, Associate Professor, Communication Studies; BA, Buena Vista University; MA, PhD, University of Minnesota; 1994 -
Mari Livingston, Counselor, Financial Aid; BA, College of St. Thomas; 2000 -
Judith A. Loewen, Assistant Professor, Clinical Laboratory Science; BS, University of Minnesota;
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Kurtis Lobide, Vice President for Finance and Administrative Services; BA, Indiana University; MS, National Defense University; MA, US Army Command and General Staff College; 2008 Cathie Logan, Retiree Center; BA, MS, Winona State University; 1989 -
Carol A. Long, Professor, Special Education; BS, MA, PhD, University of Missouri; 1993 -
Alyssa Lopez, Residence Hall Director; BA, MA, Lee University; 2007 -

Donald Lovejoy, Professor, Music; BS, Asbury College; MM, University of Regina; MM, Northwestern University; DMA, University of Wisconsin-Madison; 2000 -
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R. Richard MacDonald, Professor, Music; BA, MME, University of North Texas; DA, University of Northern Colorado; 1996 -
ChunLok Mah, Assistant Professor, Art; BES, St. Cloud
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Gabriel Manrique, Professor, Economics; BA, Ateneo De Manila University; MA, Ohio University; MA, PhD, University of Notre Dame; 1989 -
Gloria Marmolejo, Professor, Psychology; BS, National
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University of Wisconsin-Madison; 1994 -
Michael Martin, KQAL Operations Manager; BA,
Winona State University; 2008 -
Diane May, Assistant Professor, Business
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Ronald M. Mazur, Professor, Foreign Languages;
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William McBreen, Dean, College of Nursing and Health Sciences; BSN, Mount Marty College; MSN, University of Nebraska Medical Center; PhD,
University of Texas; 2000 -
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Patty McCutcheon, Coordinator, Sign Language/
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Tamara Merkouris, Residence Hall Director; BA,
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Gretchen Michlitsch, Assistant Professor, English;
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Peter K. Miene, Professor, Psychology; BA, University of Kansas; PhD, University of Minnesota; 1992 -
Charla S. Miertschin, Professor, Chemistry; BS, Abilene
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Joe Mount, Assistant Professor, Library; BA, Wake Forest
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Elizabeth Oness, Associate Professor, English; BA, James Madison University; MFA, University of Maryland; PhD, University of Missouri; 2001 -
Lynne Ornes, Associate Professor, Nursing; BS, Grand Valley State University; MS, Texas Women's University; PhD, University of Utah; 2008 -
W. Harold Ornes, Dean, College of Science and Engineering; BS, MA, Northeast Missouri State University; PhD, Iowa State University; 2008 -
William Ortega, Professor; Accounting; BBA, University of Iowa; MBA, Indiana University; PhD, Florida State University; Certified Fraud Examiner (CFE); Certified Management Accountant (CMA); 2003 -
Kathy S. Orth, Professor, Nursing; AA, Austin
Community College; BSN, College of Saint Teresa; MS, University of Minnesota; 1983 -
Aurea K. Osgood, Assistant Professor, Sociology; BA,
Winona State University; MA, PhD, Bowling Green State University; 2007 -
Frederick Otto, Professor, Physics; BA, BS, Humboldt
State University; PhD, University of California; 1990-
Hugh F. Ouellette, Professor, Computer Science; BS,
Western Montana College; MA, University of Illinois;
MA, Ball State University; EdD, University of Northern Colorado; 1972 -
Todd Paddock, Assistant Professor, Sociology; BS,
University of Michigan; MS, Cornell University; PhD, Indiana University; 2004 -
Robert Jay Palmer, Assistant Professor, Social Work;
BS, California State University Fullerton; MSW,
California State University Long Beach; 2007 -
Seho Park, Professor, Art; BA, Keimyung College
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WA); MFA, PhD, University of Minnesota-Twin Cities; 1988 -
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Winona State University; MS, St. Cloud State University; 2008-
Fariborz Parsi, Professor, Composite Materials
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Felino G. Pascual, Professor, Mathematics and Statistics; BS, Ateneo de Manila, Philippines; MSc, PhD,
University of Minnesota; 1992 -
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University; 2000 -
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Anne Scott Plummer, Professor, Art; BFA, Rhode Island
School of Design (Providence); MFA, Claremont
Graduate University (California); 1990 -
Julie Ponto, Professor, Nursing; BSN, University of
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Kyle Poock, Assistant Professor, Baseball Coach; Health, Exercise and Rehabilitative Sciences; BS, MS, Winona State University; 1995 -
Kevin Possin, Professor, Philosophy; BA, Southwest
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University of Wisconsin-La Crosse; MFA, MLS,
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Leadership; BA, Winona State University; 2000 -
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Lilian Ramos, Associate Professor, Foreign Languages;
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Daniel Rand, Associate Professor, Mathematics and
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University of Iowa; 2006 -
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James Reidy, Associate Professor, Recreation, Tourism, and Therapeutic Recreation; BS, MS, EdD, Oklahoma State University; 2000 -
Edward Reilly, Associate Dean, College of Liberal Arts;
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Winona State University; 2006 -
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BA, Colby College; MS, University of Wisconsin-
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Minnesota; 2004-
Lawrence Reuter, Professor, Biology; BA, Saint Mary's
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Wayne Ripley, Assistant Professor, English; BA,
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Mary Robrer, University Advancement; BS, University of Wisconsin; 2008 -
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Vartan Safarian, Professor, Economics; BS, Pahlavi
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Larry Sallee, Professor, Accounting; BS, University of
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Donald M. Salyards, Professor, Economics; BA,
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Peggy Sannerud, Associate Professor, Theatre and Dance;
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Daniel Sauers, Professor, Business Administration; BS, Slippery Rock State University; MBA, PhD, Florida State University; 2002 -
Tom Sawyer, Associate Professor, Physical Education and Sport Science, Football Coach; BS, MS, Winona State University; 1996 -
Martha Scheckel, Assistant Professor, Nursing; BSN, Graceland University; MSN, Clarke College; PhD, University of Wisconsin-Madison; 2005 -
Paula Scheevel, Residence Life Director; BS, Winona State University; 2004-
Cindy Scherb, Professor, Nursing; BS, Mount Mercy College; MS, University of Minnesota; PhD , University of Iowa, 2002 -
Don L. Scbmidlapp, Professor, Art; BFA, University of Kansas; MFA, Indiana University; 1981 -
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Gregory G. Scbmidt, Professor, History; BA, MA, PhD, University of Illinois; 1984 -
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Cbarles Schreiber, Assistant Professor, Psychology;
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Paul Schumacher, Associate Professor, Computer Science;
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University of Oklahoma; Post-Graduate Certificate,
University of Zambia (University of London, external); PhD, University of Iowa; 1973-
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Jacquelyn Severson, Alumni Affairs; 2008 -
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Lloyd (Tom) Stevens, Assistant Professor, Educational Foundations, Research, and Technology; BS, Minnesota State University-Mankato; MA, University of Northern Iowa; 2007 -
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Kathryn Sullivan, Professor, Library; BA, MA, Northern
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Michael Swenson, Director of Alumni Relations; BS, MS,
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Tammy Swenson Lepper, Associate Professor,
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Wayne Theye, Assistant Professor, Counseling Center; BS, University of Dayton; PhD, New Mexico State University; 2007 -
Mussie Tessema, Assistant Professor, Business
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Edward Thompson, Professor, Biology; BA, Macalester College, St. Paul; PhD, Medical College of Wisconsin; 1992 -

Patricia Thompson, Professor, Nursing; BSN, BS,
Winona State University; MSPH, PhD, University of Minnesota; 1990 -
Tomas Tolvaisas, Assistant Professor, History; BA, Wake Forest University; MA, Purdue University; PhD,
Rutgers University, 2007 -
Michael Turgeon, Athletic Academic Advisor; BS, MS, University of Wisconsin; 2004 -
Leon Tyler, Assistant Professor, Marketing; BS,
Northwestern University; MBA, University of St.
Thomas; 2008 -
Mieca Valen, Associate Professor, Nursing; BS, Augustana
College; MS, South Dakota State University; 2005 -
Paul Vance, Professor, Music; BA, Moorhead State
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John Vivian, Professor, Mass Communication; AB, Gonzaga University; MSJ, Northwestern University; 1981 -
Rhea Walker, Associate Professor, Educational
Foundations, Research, and Technology; BS, MA, University of Northern Iowa; PhD, Iowa State University; 2004 -
Donald Walski, Director, Security; BA, Winona State University; 1995 -
Aaron Wangberg, Assistant Professor, Mathematics and Statistics; BA, Luther College; PhD, Oregon State
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Penny Warner, Associate Professor, Education; BS, MS, University of Wisconsin; PhD, University of Minnesota; 2000 -
Myles Weber, Assistant Professor, English; BA, Augsburg College; MA, George Washington University; MA, Syracuse University; PhD, University of MarylandCollege Park; 2007 -
John Weis, Associate Professor, Mass Communication; BS,
Northern Illinois University; MA, Norwich University; 1996 -
Mary Welhaven, Professor, Nursing; BSN, Winona State University; MS, PhD, University of Minnesota; 1981 Wayne Wicka, Program Coordinator, Advising Services; BA, Winona State University; MA, Mankato State University; 1998 -
Janette P. Williams, Professor, Psychology; BA,
Northwestern University; MA, PhD, University of Illinois; 1987 -
Nicole Williams, Associate Professor, Mathematics and Statistics; BS, University of Maine; MS, PhD, Illinois State University; 2004 -
Edward (Ted) Wilson, Associate Professor, Biology; BA, Luther College, Decorah IA; MS, PhD, Iowa State University; 2004 -
Xavier Wilson, Residence Hall Director; BA, St. Mary's University; 2005 -
Brian P. Winrow, Assistant Professor, Business
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Don Wistrcill, Assistant Professor, Physical Education and Sport Science; BS, MS, Winona State University; 1990

Marvin Wolfmeyer, Professor, Economics; BS, University of Missouri; MS, PhD, University of Wisconsin; 1969 -
Jamie Woodard, WSU Children's Center; BS, Winona
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David Wright, Associate Professor, Recreation, Tourism, and Therapeutic Recreation; BS, University of Sydney/ Goulburn Teacher's College; MS, PhD, University of Oregon; 2005 -
Mark Wrolstad, Professor, Finance; BA, Luther College; MBA, University of Florida; PhD, University of Colorado; 1989 -
Nicholas Wysocki, Assistant Professor, Educational
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Jin Xu, Associate Professor, Communication Studies; BA, Changsha Tiedao University, China; MA, Southwest China Normal University, China; MS, PhD, Bowling Green State University; 2004 -
Hamid Yeganeh, Assistant Professor, Business
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Mark Young, Professor, Marketing; BS, MBA, University of Wisconsin; DBA, University of Kentucky; 1980 -Wei-Choun (William) Yu, Assistant Professor, Economics; BA, National Taiwan University; MA, PhD, University of Washington; 2006 -
Kimberly Zeibler, Student Support Services; BA, Winona State University; 2001 -
Brian Zeller, Associate Professor, Health, Exercise and Rehabilitative Sciences; BS, University of Wisconsin-La Crosse; MS, Indiana State University; PhD , University of Kentucky; 2000 -
Mingrui Zhang, Professor, Computer Science; BSEE, Beijing University; MSCS, PhD, University of South Florida; 1999 -
Shenglan Zhang, Assistant Professor, Educational
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Weidong Zhang, Assistant Professor, Global Studies; BA, MA, Nanjing University (China); MA, PhD, University of Iowa; 2007 -
Saeed Ziaee, Assistant Professor, Composite Materials
Engineering; BS, PhD, University of Texas at Austin; 2003 -
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Dennis Battaglini, Physics; BS, EdD, California State University of Pennsylvania; MAT, PhD, Michigan State University
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Steven Berg, Biology; BS, Pacific Lutheran University; PhD , Purdue University
Jean Billman, Education; BA, Wittenberg University; EdM, EdD, Temple University
Danning Bloom, Physics; BS, Illinois Wesleyan University; PhD, University of Colorado
Carol Blumberg, Mathematics and Statistics; BA, MA, University of Michigan; MS, PhD, Michigan State University
George Bolon, Physics; BS, MS, Oregon State University; PhD, University of Utah
Barbara Boseker, Special Education; BS, MA, PhD, University of Wisconsin
Richard Bowman, Education; BSEd, MSEd, Ohio University; PhD, University of Toledo
David Bratt, Theatre and Dance; BA, Calvin College; MA, University of Iowa; PhD, University of California
Brian Briggs, Accounting; BS, University of Connecticut; MS, Northeastern University
James Bromeland, Political Science; BA, MS, Mankato State University
Raymond Brooks, Mass Communication; BS, Valley City State College; MS, Moorhead State University
Ervin G. Bublitz, Sociology; BA, St. Mary's College (Minnesota); BS, MS, Winona State University; PhD , University of Utah
Roberta Bumann, Nursing; BSN, University of Iowa; MSN, University of Wisconsin - Eau Claire
John Burdick, Social Work; BA, Allegheny College; MSW, State University of New York
John Burros, Facilities; BA, Winona State University
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George Christensen, Counseling Center; BS, MA, PhD , University of Minnesota
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Marjorie Dorner, English; BA, St. Norbert College; MA, Marquette University
Robert A. DuFresne, President; BS, St. Cloud University; MEd, University of Colorado; EdD, University of North Dakota
Glenn F. Dukes, Computer Science; BS, MS, PhD, Iowa State University
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James Howard Eddy, Political Science; BS, St. John's
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Shirley Eiken, Administrative Information Systems; BA, Luther College; MS, Winona State University; EdD, University of Northern Colorado
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I Lee Gray, Educational Leadership; BS, University of Nebraska; MS, EdD, University of Minnesota
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Tim Hatfield, Counselor Education; BA, Harvard
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Roderick Henry, History; BS, MA, Ball State University
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Richard Hopkins, Geography; BA, Eastern Michigan
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Wesleyan; MA, EdD, University of South Dakota
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MS, Winona State University
John Kane, Student Affairs; BS, University of
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Jeanette Karjala, Education; BA, Fifth Year and MA,
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Wayne J. Kirk, Education; BS, University of Wisconsin; MEd, University of Illinois; PhD, University of Minnesota
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Carolyn Kosidowski, Student Support Services; BS, Winona State University
Jon Kosidowski, Admissions; BA, Winona State University; MA, Bemidji State University
Norma Krantz, Nursing; BSN, MS, University of Minnesota
Joanne Landers, Registrar's Office; BS, Winona State University
Kristi Lane, Psychology; BA, University of North Carolina, MA, PhD, George Peabody College of Vanderbilt University
Rosemary Langston, College of Nursing and Health Services; BSN, University of Buffalo; MSN, Texas Woman's University; PhD, University of Minnesota
Thomas Lee, Accounting; BA, MBA, Mankato State University
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* "Additional Requirements" course as defined in Item 3, page 18


[^0]:    FLAG
    Oral (")
    BUED
    401 General Methods and Foundation (3)
    BUED 410 Administrative Communication (3)
    Writing ( ${ }^{(2)}$ )
    BUED 3
    Business Communication (3)

[^1]:    

[^2]:    * EFRT 305 Human Development and Learning: Secondary (4)

    EFRT 308 Human Relations and Student Diversity (3)

[^3]:    m＝Oral Flag 狍＝Math／Critical Analysis Flag＝Writing Flag

[^4]:    明＝Oral Flag＝Math／Critical Analysis Flag 昰＝Writing Flag

[^5]:    5－12 Majors（Teaching）
    BS Major－Business Education（BEDT）

