UNIVERSITYOF WISCONSIN-STEVENS POINT


UNDERGRADUATEAND GRADUATE CATALOG87-89

## University of WisconsinStevens Point Undergraduate/Graduate Catalog 1987-89

In compiling our catalog we have used the most current and accurate information available to us at this time. However, we reserve the right to change any of the information in this catalog at any time and without giving prior notice. When the UW System or UW-Stevens Point campus deletes or revises any of the information in this catalog, the changes take effect as soon as they are approved. To keep up to date on these changes, check with your adviser regularly during your college career.

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## Accreditation

The North Central Association of Colleges and Secondary Schools fully accredits the University of Wisconsin-Stevens Point to offer undergraduate college programs leading to the bachelor's degree and graduate programs leading to the master's degree.
Individual departments and programs within the University of Wisconsin-Stevens Point are also accredited by the:

American Chemical Society

American Dietetics Association
American Home Economics Association
American Speech and Hearing Association
Association of Schools of Art and Design
National Association of Schools of Music
Society of American Foresters

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## Calendar

| 1987-88 | 1988-89 | First Semester |
| :---: | :---: | :---: |
| Aug 24 | Aug 29 | Official opening |
| Aug 24-31 | Aug 29-Sep 2 | Registration/Orientation |
| Sep 2 | Sep 6 | Classes begin |
| Sep 7 |  | Labor Day recess |
| Nov 2510 pm | Nov 23 10pm | Thanksgiving recess begins |
| Nov 30 | Nov 28 | Classes resume |
| Dec 5 | Dec 10 | Registration for 2nd semester Continuing students only. |
| Dec 15 | Dec 16 | Last day of classes |
| Dec 16 | Dec 18 | Study day |
| Dec 17-22 | Dec 17-22 | Final exams |
| Dec 13 | Dec 18 | Commencement |
| 1987-88 | 1988-89 | Second Semester |
| Jan 11 | Jan 17 | Official opening |
| Jan 11-18 | Jan 17-20 | Registration/Orientation |
| Jan 19 | Jan 23 | Classes begin |
| Mar 1110 pm | Mar 1710 pm | Spring recess begins |
| Mar 21 | Mar 27 | Classes resume |
| Apr 1 noon |  | Easter recess begins |
| Apr 4 |  | Classes resume |
| Apr 30 | May 6 | Registration for 1 st semester Continuing students only. |
| May 6 | May 12 | Last day of classes |
| May 7 | May 13 | Study day |
| May 9-14 | May 15-20 | Final exams |
| May 15 | May 21 | Commencement |
| 1988 | 1989 | Summer Session |
| May 23 | May 29 | Three-week session begins |
| Jun 13 | Jun 19 | Eight-week session begins |
| Jul 4 | Jul 4 | Holiday |
| Aug 3 | Aug 9 | Last day of classes |
| Aug 4-5 | Aug 10-11 | Final exams |

Please send me more information about UW-Stevens Point.
Specifically, send me:
1 A viewbook on UW-Stevens Point.An application for undergraduate admission.
An application for graduate admission.A timetable for $\qquad$ Semester/Session.

Program information on:
Name: $\qquad$ High School: $\qquad$
Address: $\qquad$ City: $\qquad$
City, State, Zip $\qquad$ Graduation Date: $\qquad$
Phone:
Current College:
(if transferring)

## Introduction

## Why a Plain English Catalog?

An admissions director recently wrote that the college catalog is 'probably the Western world's most boring piece of literature." He was right. Most college catalogs are dry, wordy, complex and hard to understand. It almost seems as though people sit down and deliberately try to make them unreadable.
But a college catalog is also an extremely important book. It helps you decide which college to attend. It shows you how to apply for admission. And once you're in college, it guides you in completing your college career.
We at UW-Stevens Point want to make it easy for you to understand and use our catalog. You deserve a clear statement of what we have to offer you and what you need to do in order to succeed at UW-Stevens Point.
You will face a great many challenges in your college career. We have tried to make sure that understanding this catalog is not one of them.

## UW-Stevens Point: A Profile

UW-Stevens Point has a long and proud academic tradition. In 1894 we opened our doors to 306 students as Stevens Point Normal School. Since then, we have undergone several name changes, while expanding our programs and attracting more students. In the process, UW-Stevens Point has gained a considerable reputation for excellence in teaching.
Our enrollment has risen to over 9,000 students who attend classes in seven major buildings in a six square block area. The College of Natural Resources Building, one of these classroom buildings, displays a massive computer-generated mosaic mural, the largest artwork of its kind.
Old Main and the University Center lie south of the classroom buildings, and the residence halls lie north of the classroom buildings. Just north of the residence halls is Schmeeckle Reserve, a 195 -acre nature area with a 24 -acre lake, a nature center, and several hiking trails.
The University of Wisconsin Board of Regents has adopted a special mission statement for UW-Stevens Point. In that statement they say that we should:

1. Offer a broad base of fine arts and liberal studies and degrees both for the development of students and upon which education in the professional fields can be built;
2. Provide undergraduate programs in communicative disorders, teacher education, home economics, paper science, and natural resources with emphasis on the management of resources;
3. Offer basic graduate programs in teacher education, communicative disorders, natural resources, home economics, and select areas clearly associated with our undergraduate emphasis and strength;
4. Be dedicated to implementing quality undergraduate instruction through new and innovative methods including the Learning Resources Center and selfdirected study programs; and
5. Develop appropriate inter-institutional relationships within our region.
We at UW-Stevens Point fulfill this mission to our students and to all the citizens of the State of Wisconsin. The mission statements of the University of Wisconsin System and the "University Cluster," of which we are a part, appear later in this catalog.

## The Stevens Point Community

Stevens Point is in the heart of Wisconsin. Incorporated in 1858, it became the county seat of Portage County in 1868. Known as the "Gateway to the Pineries," it was for many years the supply point for the lumbering industry in the pine forests which stretch north of the city. Sawmills and later papermills were the economic base of the community.
Today Stevens Point is a city of about 25,000 in a metropolitan area of nearly 60,000 . The international headquarters of Sentry Insurance gives Stevens Point a cosmopolitan flavor which is unusual for a Midwestern city of its size.
In its picturesque setting on the banks of the Wisconsin River, Stevens Point offers a wide range of recreational opportunities, including 34 city and county parks, the historic Market Square, and the new CenterPoint Mall.
Stevens Point lies midway between Milwaukee and Minneapolis at the intersection of U.S. Highways 10 and 51. It is served by Greyhound and Trailways Bus Lines. Through the Central Wisconsin Airport in Mosinee, it is also served by several airlines.

Chancellor Philip R. Marshall


## Admissions

## Why Should I Attend UW-Stevens Point?

We believe there are two reasons. One is what we at UWStevens Point have to offer you-the various programs and services we describe in this catalog. The other is what you can become at UW-Stevens Point. This second reason is the more important.
At UW-Stevens Point you can attain a fuller and more mature understanding of the world, and so prepare to live a purposeful and productive life as a responsible member of society. The scope of human knowledge is so immense that you cannot survey it systematically in four years of formal education. However, at UW-Stevens Point you can continue the lifelong pursuit of knowledge and understanding, a crucial process for an educated individual.
Specifically, as you become an educated person at UW-
Stevens Point you can reach five important goals:

1. To acquire proficiency in oral and written communication and nonverbal symbol systems.
2. To learn to think critically and to understand the ways in which to acquire knowledge, advance it, and bring it to bear on problems.
3. To acquire sufficient knowledge of human behavior and of our own and other cultures to understand issues in the development of civilizations, appreciate the intellectual and aesthetic contributions of civilizations, and achieve a perspective on problems in the contemporary world.
4. To acquire the knowledge and the skills of mental and physical health to enhance both your longevity and your effectiveness.
5. To achieve competence in at least one specific field of study.
To help you reach these goals, we emphasize liberal arts and general education studies.

## Equal Opportunity/Affirmative Action Policy

We at UW-Stevens Point affirm your right to equal opportunity in education. We make all our campus programs and activities equally available to all students. In our educational programs, activities and employment policies, we don't discriminate on the basis of age, ancestry, color, creed or religion, handicap, national origin, political affiliation, race, sex, or sexual orientation. And we follow all applicable federal and state laws. We are authorized under federal law to enroll nonimmigrant alien students.
The University of Wisconsin-Stevens Point is an Affirmative Action/Equal Opportunity employer and encourages applications from members of ethnic/racial minorities, persons with handicaps, and women. If you have a question or concern about our compliance with state or federal laws, write or visit our Affirmative Action Office, Room 213 C , Main Building, or phone (715) 346 2002.

If you are disabled, you may obtain information on program access to all UW-Stevens Point majors, minors, and courses, as well as physical access to all campus buildings, by contacting the Disabled Student Services Office, Room 103, Student Services Center, (715) 346-3361. You may also call on them for help with counseling, housing, academic advising, and tutoring. We urge you to call them to set up an individual assessment before your first semester of classes. All segments of UW-Stevens Point comply with Section 504 of the Rehabilitation Act of 1973.

## Who May Attend UW-Stevens Point? <br> New First Year Applicants

If you ranked at or above the 50 th percentile of your high school graduating class, satisfactorily completed the requirements of a high school equivalency certificate or diploma (based on the General Education Development examination, the Wisconsin High School Equivalency examination, or other esfablished criteria) or earned a composite score of 21 or higher on the ACT examination, we will admit you if you:

1. Graduated from a recognized high school or its equivalent with at least 16 credits (4 years). Your high school is recognized if a regional accrediting association or state university accredits it or if a state department of public instruction or its equivalent recognizes or accredits it.
2. Completed 10 or more credits in the fields listed here:

| Subject | Minimum Credits Required | Minimum Credits Recommended |
| :---: | :---: | :---: |
| English | 3 | 4 |
| Social Studies | 2 | 3 |
| Foreign Language | 0 | 3 |
| Mathematics | 1 | 3 |
| Natural Science | 1 | 2 |
| Speech | 0 | 5 |

If you are interested in pursuing a college major which requires considerable study in mathematics or the natural sciences, we recommend you complete 3 to 4 credits of mathematics and 3 credits in the natural sciences.

If you neither ranked above the 50 th percentile of your graduating class nor earned a 21 on the ACT examination, you may appeal to the Director of Admissions for special consideration. We will consider you for admission on an individual basis, paying particular attention to the combination of your high school rank and ACT composite score. We will give you special consideration if you have been out of school for three or more years or if you have been educationally disadvantaged.
If you are denied admission, you may establish eligibility for admission on probation by taking the ACT exam, achieving a composite score of at least 17 (or its equivalent on the SAT exam), and either:

1. Enrolling in a summer session at UW-Stevens Point or another regionally accredited college or university, taking 6 credits or more, and earning a grade point average of at least 2.0 ("C'); or
2. Enrolling in the second semester of the academic year at UW-Stevens Point, taking 12 credits or more, and earning a grade point average of at least 2.0 (" $C^{\prime \prime}$ ).
NOTE: Some high school courses do not satisfy college admissions requirements for academic coursework. Check with our Admissions Office to be sure that your courses meet our requirements.

## ACT Enrollment Requirement

Please take the American College Testing (ACT) examination before enrolling at UW-Stevens Point. We use the information from this test to help you in orientation seminars, life planning seminars, academic advising, and career exploration seminars.
You need not take this test if you are a transfer student with more than 9 credits, if you are a special student (not pursuing a degree), or if you enter UW-Stevens Point a
year or more after completing high school. See the director of admissions if you fall in none of these three categories but still want to be exempt from this requirement or want to substitute the SAT for the ACT examination.

## Other Applicants

1. Transfer Students. We will admit you unless you compiled an academic record at your last institution such that you would have been suspended if you had been attending UW-Stevens Point.
If you did compile such a record, you may apply for admission to UW-Stevens Point at least one semester after your first suspension or at least two years (four semesters) after your second suspension.
2. Returning UW-Stevens Point Students. If you have been away from campus for one semester or longer, see the section in this catalog entitled How Do I Apply for Readmission?
3. Nondegree (Special) Students. If you are a high school graduate and want to take a limited number of courses, but you don't seek a degree, you are welcome to register for courses without formally applying for admission.
4. High School (Special) Students. Contact the Admissions Office for information on how to take courses at UWStevens Point before graduating from high school.
For further information about whether you are eligible to attend UW-Stevens Point, please contact the Admissions Office, Room 102, Student Services Center, (715) 346-2441.

## How Do I Apply for Readmission?

Write or visit the Admissions Office, Room 102, Student Services Center, to apply to be readmitted to UW-Stevens Point.

1. If you left UW-Stevens Point while in good academic standing, ask any colleges you've attended since leaving UW-Stevens Point to send a copy of your transcript to our Admissions Office so that we can determine your eligibility for readmission.
2. If you left UW-Stevens Point under academic suspension:
First Suspension: You may apply for readmission one semester after you are first suspended. You may apply even earlier if you show that you were suspended due to circumstances you could not control and that those circumstances have changed.
Second and Following Suspensions: You may apply for readmission two years after you are suspended for a second time. Again, you may apply earlier only if you show that you were suspended due to circumstances you could not control and that those circumstances have changed.

Appeals: If we deny your request for readmission, you may appeal our decision. Address your letter of appeal to the Director of Admissions, who will forward it to the appropriate university committee.

## What Is Orientation for New Students?

As a new student at UW-Stevens Point, you take part in a two-day orientation program along with your parents.
Through the program, you learn how to quickly and easily adapt to university life. You also get to know UW-Stevens Point's customs, traditions, curricula, policies, and services.
As part of this program, you meet with an academic adviser and prepare your class schedule for your first semester. You also meet with both upperclass students and other new students in small discussion groups.
At the same time, your parents hear presentations by UWStevens Point faculty and staff on such topics as student health programs, health insurance, financial aid opportunities, housing and dining programs, and parentstudent understanding. During the program, you and your parents are housed in residence halls and eat at UWStevens Point dining facilities. For more information, write or visit the Director of New Student Programs, Room 103, Student Services Center, or call (715) 346-3361.
If you are a nontraditional student, you may get additional information about orientation and registration by writing or visiting the Nontraditional Student Services Office, Dean Smith Room in the University Center, or by calling (715) 346-2045.
If you are a transfer or re-entering student, take part in our one-day program which allows you to meet with a faculty adviser, take whatever placement exams are necessary, and register for classes. We will give you full information on this program when you apply for admission.

## How Do I Transfer Credits I've Earned Elsewhere?

Ask each college you have attended to send a transcript of your credits to UW-Stevens Point's Admissions Office. We usually count toward graduation those courses at an accredited college in which you received a grade of "D" or better, if they have a place in the curriculum you select. However, the head of your department will determine whether they count toward your major. We accept a maximum of 72 credits you earn at a two-year college.
To graduate from UW-Stevens Point, you must earn 30 credits or more on the UW-Stevens Point campus.


What UW-Center System Courses May 1 Transfer? You may transfer up to a total of 72 credits in UW-Center System and other two-year college courses. Check the table below to see which Center System courses you've taken have UW-Stevens Point equivalents. You will receive lower division ( $100-200$ level) credit for any Center System courses which you transfer, even if the equivalent UW-
Stevens Point course is an upper division course. Please contact the Admissions Office for additional information regarding the transferability of courses.
Here is a partial list of abbreviations used in the equivalency list below.

| $1 \times x / 2 \times x \quad$ | Credit for the course has been accepted, but |
| :--- | :--- |
| UW-SP has no comparable offering |  |
| CIS $\quad$ Computer Information Systems |  |
| C Lt $\quad$ Comparative Literature |  |
| Elec $\quad$ Elective |  |
| E Gr | Engineering Graphics |



| Center | UW-S |  | Notes: | Center | UW-SP |  | Notes: | Center | UW-S |  | Notes: |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 113 | CIS | 110 |  | 276 | HU2. | 2xx |  | 225 | Germ | 313 |  |
| 120 | CIS | 1 xx |  | 280 | HU2 | 2xx |  | 226 | Germ | 314 |  |
| 130 | CIS | 102 |  | 290 | HU2 | 2xx |  | 275 | Germ | 243 | Also HU2 |
| 131 | CIS | 1 xx |  | 297 | Engl | 383 |  | 276 | Germ | 243 | Also HU2 |
| 133 | CIS | 1 xx |  | 298 | Engl | 385 | Also HU2 | 277 | C Lt | 350 | Also HU2 |
| 210 | CIS | 2 xx |  | 299 | Engl | 399 | Also HU2 | 291 | Germ | 340 |  |
| 211 | CIS | 112 |  | 351 | Eng1 | 312 |  | 299 | Germ | 499 | Also HU2 |
| 213 | CIS | 110 |  | 353 | HU2 | 2xx |  |  |  |  |  |
| 231 | Math | 360 |  | 355 | HU2 | 2xx |  | History 101 |  |  |  |
| 240 | CIS | 2xx |  | 370 | Engl | 383 |  | 101 | Hist Hist | 211 212 |  |
| 241 243 | CIS | 112 |  | 380 | Engl | 385 | Also HU2 | 105 | Hist | 1 xx | Hist GDR |
| 243 250 | CIS | 2xx |  | Forestry |  |  |  | 106 | Hist | 1xx | Hist GDR |
| 251 | CIS | 2xx |  | 120 | For | 120 |  | 110 | Hist | 1xx | Hist GDR |
| 252 | CIS | 2xx |  | French |  |  |  | 111 | Hist | 105 |  |
| 253 | CIS | 2xx |  | 101 | Fren | 101 |  | 112 | Hist | 1xx | Hist GDR |
| 254 | CIS | 2xx |  | 102 | Fren | 102 |  | 114 | Hist | 1 xx | Hist GDR |
| 255 | CIS | 2xx |  | 118 | F Lg | 100 |  | 115 | Hist | 106 |  |
| 260 | CIS | 230 |  | 119 | F Lg | 100 |  | 166 | Hist | 1xx | Hist GDR |
| 270 | CIS | 302 |  | 201 | Fren | 211 |  | 117 | Hist | 338 | Also Hist GDR (BM,BFA) |
| 291 | CIS | 2xx |  | 202 | Fren | 212 |  | 118 | Hist | 391 | Also Hist GDR \& NW |
| 299 | CIS | 2xx |  | 215 | F Lg | 100 |  | 119 | Hist | 107 |  |
| Econom |  |  |  | 219 | Fren | 340 |  | 120 | Hist | 108 |  |
| 101 | Econ | 100 |  | 221 | Fren | 341 |  | 121 | Hist | 216 | Also Hist GDR |
| 203 | Econ | 210 |  | 222 | Fren | 342 |  | 12 | Hist | 331 | (BA, BM, BFA) |
| 204 | Econ | 211 |  | 225 | Fren | 313 |  |  |  |  | (BA, BM, BFA) |
| 230 243 | Econ | 360 310 | Also SS1 | 226 | Fren | 314 |  | 124 | Hist | 332 | Also Hist GDR (BA) |
| 243 | Econ | 315 | Also SS1 | 275 | Hu2 | 2xx |  | 126 | $\underset{\text { Hist }}{\text { Hist }}$ | ${ }_{327} 1 \times$ | Hist GDR Also Hist GDR \& NW |
| 271. | SS1 | 2xx | Also NW | 276 | HU2 | 2xx 350 |  | 127 128 | Hist HU4 | 327 $1 \times x$ | Also Hist GDR \& NW |
| 297 | Econ | 2xx |  | 291 | Fren | 350 340 | Also HU2 | 150 | Hist | 1xx | Hist GDR |
| 299 | Econ | 2xx |  | 299 | Fren | 499 | Also HU2 | 178 | Hist | 130 | Also Hist GDR (BA) |
| Educati 100 |  |  |  |  |  |  |  | 183 185 | Hist Hist | $1 \times x$ 359 | Hist GDR Also Hist GDR |
| 100 | Educ | $1 \times x$ 100 |  | Geograph | Geog | 120 |  | 185 186 | Hist Hist | 359 360 | Also Hist GDR Also Hist GDR |
| 101 | Educ | 100 |  | 104 | NS ${ }^{\text {Geog }}$ | 1 xx |  | 186 190 | Hist Hist | 360 389 | Also Hist GDR <br> Also Hist GDR |
| 200 223 | Educ | 2x 100 |  | 104 110 115 | Geog | $1 \times x$ 113 | for 4 cr ; $3 \mathrm{cr}=$ elec | 190 | Hist Hist | 389 359 | Also Hist GDR Also Hist GDR |
| 251 | P Ed | 360 |  | 115 | Geog | 110 |  | 197 | Hist | 1 xx | Hist GDR |
| 283 | Engl. | 275 |  | 120 | Geog | 101 |  | 198 | HU1 | 1 xx |  |
| 300 | Educ | 351 |  | 121 | Geog | ${ }_{102}^{101}$ |  | 203 | Hist | 253 | Also Hist GDR (BM, BFA) |
| 330 | Educ | 2xx |  | 123 124 | Geog | 102 |  | 211 | Hist | 367 | Also Hist GDR |
| Enginee |  |  |  | 125 | Geog | 100 |  | 213 | $\underset{\text { Hist }}{\text { Hist }}$ | 254 | Also Hist GDR (BM, BFA) Hist GDR \& NW |
| 100 | E Gr | 1xx |  | 130 | Geog | 340 |  | 216 | Hist | 2xx | Hist GDR \& NW Hist GDR |
| 106 | E Gr | 1 xx |  | 277 | SS1 | 2xx | Also NW | 219 | Hist | 338 | Also Hist GDR (BM, BFA) |
| Enginee | ing Gra | hics |  | 291 | Geog | 2xx |  | 221 | Hist | 216 | Also Hist GDR (BM, BFA) |
| 102 | E Gr | 1 xx |  | 297 | Geog | 2xx |  | 222 | Hist | 346 | Also Hist GDR (BM, BFA) |
| 113 | E Gr | 1 xx |  | 299 | Geog | 395 |  | 223 | Hist | 2 xx | Hist GDR \& NW |
| Enginee | ing Mec | hanics |  | 300 | Geog | 368 2 x | Also NW | 225 | Hist | 348 | Also Hist GDR |
| 201 | Phys | 220 |  | 341 | Geog | 226 | Also NW |  |  |  | (BA, BM, BFA) |
| 202 | Phys | 221 |  | 3412 | Geog | 211 |  | 254 255 | Hist Hist | 373 2 xx | Also Hist GDR (BA) Hist GDR |
| 203 | E Gr | 2xx |  | 347 | Geog | 301 |  | 256 | Hist | 2xx | Hist GDR . |
| English |  |  |  | 348 | Geog | 329 |  | 257 | Hist | 2xx | Hist GDR |
| 101 | Engl | 101 |  | 349 | Geog | 328 |  | 259 | Hist | 2xx | Hist GDR |
| 102 | Engl | 102 |  | 350 | NRes | 370 |  | 260 | Hist | 2xx | Hist GDR |
| 103 | Hu2 | 1 xx |  |  |  |  |  | 270 | Hist | 2xx | Hist GDR |
| 1200 | Engl | 240 |  | $100$ | Geol | 100 |  | 278 | Hist | 130 | Also Hist GDR (BA) |
| 200 | Engl | 200 |  | 101 | Geol | 104 |  | 280 | Hist | 2xx | Hist GDR |
| 201 | Engl | 250 |  | 102 | Geol | 105 |  | 283 | Hist | $2 \times 8$ | Hist GDR |
| 202 | HU2 | 25x |  | 130 | NS | 1xx |  | 285 | Hist | 359 | Also Hist GDR |
| 203 | Engl | 353 |  | 131 | NS | 1xx |  | 286 | Hist HU4 | 360 | Also Hist GDR |
| 205 | HU2 | 2xx |  | 169 | Geol | 100 |  | 289 | Hist | 356 | Also Hist GDR |
| 209 | HU2 | 2xx |  | 201 | Geol | 2xx |  | 290 | Hist | 389 | Also Hist GDR |
| 210 | Engl | 251 |  | 228 | Geol | 380 |  | 291 | Hist | 357 | Also Hist GDR |
| 211 | HU2 | 2xx |  | 291 | Geol | 2xx |  | 293 | Hist | 358 | Also Hist GDR |
| 213 | Engl | 211 |  | 297 | Geol | 391 |  | 295 | Hist | 359 | Also Hist GDR |
| 214 | Engl | 212 |  | 299 | Geol | 295 | or Geol 395 | 296 | Hist | 2 xx | Hist GDR |
| 215 | Engl | 213 |  | 301 | Geol | 200 | Also NS | 297 | Hist | 2xx | Hist GDR |
| 216 | Engl | 214 |  | 302 | Geol | 310 | Also NS | 298 | Hist | 2xx | Hist GDR |
| 217 | Engl | 361 |  | 306 | Geol | 2xx |  | 299 | Hist | 399 | Also Hist GDR |
| 218 219 | Engl | 362 |  | 314 | Geol | 350 | Also NS | Interdis | iplinary | Studi |  |
| 219 | HU2 | 2xx | Also NW | 316 | Geol | 2xx |  | 101 | SS2 | 1 xx |  |
| 220 | Engl | 240 |  | 350 | Geol | 375 |  | 102 | NRes | 370 |  |
| 227 | Engl | 333 |  | 409 | Geol | 2xx |  | 105 | Elec | 1 xx |  |
| 250 | Engl | 200 |  | 414 | Geol | 201 |  | 195 | Elec | 1 xx |  |
| 251 | Engl | 312 |  | 443 | Geol | 370 |  | 197 | IRes | 231 |  |
| 253 255 | HU2 | 2xx |  |  |  |  |  | 250 | TCI | 2xx |  |
| 255 | HU2 | 2xx |  | German |  |  |  | 291 | Elec | 2xx |  |
| 260 | Engl | 211 |  | 101 | Germ | 101 102 |  | 294 | Elec | 2xx |  |
| 262 | Engl | 213 |  | 118 | F Lg. | 100 |  | 295 | Elec | 2xx |  |
| 263 | Engl | 214 |  | 119 | F Lg | 100 |  | 296 | Elec | 2xx |  |
| 264 | C Lt | 101 |  | 201 | Germ | 211 |  | Learning | Resour |  |  |
| 265 | C Lt | 102 |  | 202 | Germ | 212 |  | 100 | Engl | 0xx | No transfer credit |
| 266 | HU2 | 2xx | . | 215 | F Lg | 100 |  | 101 | Engl | 0xx | No transfer credit |
| 267 | HU2 | 2xx |  | 216 | F Lg | 100 |  | 102 | Psyc | 0xx | No transfer credit |
| 270 | HU2 | 2xx |  | 219 | Germ | 340 |  | 103 | Psyc | 0xx | No transfer credit |
| 272 | HU2 | 2xx |  | 221 | Germ | 340 |  | 104 | Univ | 091 | No transfer credit |
| 274 | HU2 | 2xx | Also NW | 222 | Germ | 340 |  | 105 | Math | 0xx | No transfer credit |

Admissions


| Center | UW-S |  | Notes: | Center | UW-SP |  | Notes: | Center | UW-SP |  | Notes: |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 243 | Poli | 250 |  | 130 | Soc | 102 |  | 232 | Dram | 171 |  |
| 250 | Poli | 499 | Also SSI | 131 | Soc | 230 |  | Wildife |  |  |  |
| 260 | Poli | 499 | Also SS1 | 134 | Soc | 270 |  | 140 | Wldl | 140 |  |
| 275 | Poli | 280 |  | 138 160 | $\mathrm{SP}^{\text {Pe }} \mathrm{H}$ |  | 2cr Pe H \& icr elec | Women's | Studies |  |  |
| 298 | Poli | 499 | Also SS1 | 160 170 | $\mathrm{SoC}^{\mathrm{Pe}}$ | 1 lx | $2 \mathrm{cr} \mathrm{Pe} \mathrm{H} \& \mathrm{icr}$ elec | 101 | Womn | 105 |  |
| 299 | Poli | 499 | Also SS1 | 170 250 | SS 1 | $2 \mathrm{2xx}$ | , | 138 | SS2 | 1 xx |  |
| 308 | Poli | 310 | Also SS1 | 250 291 | SS1 | 2xx |  | 202 | HU3 | 2xx |  |
| 324 | Poli | 316 | Also SS1 | 293 | SS1 | 2xx |  | 208 | SS1 | 2xx |  |
| 352 | Poli | 356 |  | 299 | SS1 | 2xx |  | 250 | SS2 | 2xx |  |
| 354 | SS1 | 2xx |  | 299 357 | Soc | 352 |  | 291 | Womn | 300 |  |
| 385 | Poli | 380 | Also SS1 | 530 | Soc | 310 |  | 299 | Womn | 499 |  |
| Psycho |  |  |  |  |  |  |  | Zoology |  |  |  |
| 201 | Psyc | 110 |  | Spanish |  |  |  | 101 | Biol | 160 |  |
| 202 | Psyc | 110 |  | 101 | Span |  |  | 103 | NRes | 170 |  |
| 203 | Psyc | 2xx |  | 118 | ${ }_{\text {F }} \mathrm{Lg} \mathrm{Lg}$ | 100 |  | 105 | Biol | 1 xx |  |
| 204 | Psyc | 2xx |  | 118 | F Lg | 100 | - | 107 | NRes | 170 |  |
| 205 | Psyc | 250 |  | 119 201 | $\underset{\text { Fpan }}{ }$ | 211 |  | 109 | Biol | 100 |  |
| 208 | SS1 | 2xx |  | 202 | ${ }_{\text {Span }}$ | 212 |  | 116 | Biol | 1xx |  |
| 210 | Psyc | 300 |  | 202 | Span | 212 |  | 140 | Wld | 140 |  |
| 224 | Psyc | 2 xx |  | 210 | Span | 340 |  | 151 | NS | 1 xx |  |
| 225 | Psyc | 389 |  | 221 | Span | 342 | Also HU2 | 152 | NS | 1 xx |  |
| 250 | Psyc | 260 |  | 222 | Span | 341 |  | 155 | Biol | 383 |  |
| 254 | Psyc | 325 |  | . 225 | Span | 313 |  | 160 | Biol | 210 |  |
| 299 | Psyc | 399 | Also SS1 | 226 | Span | 314 |  | 170 | NS | 1 xx |  |
| 411 | Psyc | 490 | Also SS1 | 235 | F Lg | 330 |  | 203 | Biol | 383 |  |
| 449 | Psyc | 340 | Also SS1 | 236 | F Lg | 330 |  | 234 | P Ed | 271 | Also NS |
| 507 | Psyc | 301 | Also SS1 | 266 | Span | 243 | Also HU2 | 235 | Biol | 360 | Also NS |
| 509 | Psyc | 351 | Also SS1 | 275 | Span | 243 | Also HU2 | 237 | Biol | 372 | Also NS |
| 530 | Psyc | 320 |  | 277 | ${ }_{\text {Cpan }}$ | 350 | Also HU2 | 250 | Biol | 305 | Also NS |
| 550 | SS1 | 2xx |  | 291 | Span | 493 |  | 260 | Biol | 210 | Also NS |
| 560 | Psyc | 260 |  | 299 | Span | 499 | Also HU2 | 277 | Biol | 377 | Also NS |
| 561 | Psyc | 315 |  | Speech |  |  |  | 291 | Biol | 498 |  |
| 562 | SS1 | 2 xx |  | 101 | Comm | 211 |  | 299 | Biol | 399 |  |
| Sociolo |  |  |  | 103 | Comm | 101 |  | 430 | Biol | 370 379 | Also NS |
| 101. | Soc | 101 |  | 131 | Dram | 126 | or 226 or 326 or 426 | 505 | Biol | 379 |  |
| 120 | Soc | 240 |  | 150 | Comm | 125 |  | 515 | Watr | 481 | Also NS |
| 125 | SS1 | 1xx |  | 201 | SS2 | 2xx |  | 516 | Watr | 483 | Also NS |

## How Do I Test Out of Courses?

You may test out of courses through several programs, some of which even give you course credit.

## Advanced Placement Program (APP)

To find out where and when you may take the APP examination, contact your high school counselor. To find out which APP examinations we accept, contact the UWStevens Point Admissions Office, Room 102 Student Services Center, (715) 346-2441.

## College Level Examination Program (CLEP)

UW-Stevens Point is a CLEP test site, and we award credit and advanced standing for acceptable scores in CLEP subject exams and general exams in humanities, natural science, and social science. For information on CLEP tests contact the UW-Stevens Point Admissions Office, Room 102, Student Services Center, (715) 346-2441, or the Counseling Center, Room 304, Delzell Hall, (715) 346-3553.

## Department Testing Programs

As part of New Student Orientation, you take part in some departments' testing programs. Check with the chairs of individual departments for further information about their test-out procedures. Some use department tests to supplement CLEP or APP examinations.

## Experiential Learning Program

If you have had experiences equivalent to college level learning which relate to course work at UW-Stevens Point, you may receive college credit for these experiences. For example, you might be eligible to gain academic credit for experiential learning from your past employment, volunteer work, publications, or your participation in seminars, workshops, job-related training programs, or military training programs. For further information, contact the Nontraditional Student Services Office, Dean Smith Room, University Center, (715) 346-2045.


## Finances

## How Do I Apply for Financial Aid?

If you are a new first-year student:

- Get a Family Financial Statement from your high school guidance counselor or from the UW-Stevens Point Student Financial Aid Office. Complete and mail the form according to the instructions provided on it.
- When you receive the Pell Grant Student Aid Report from the Pell Grant Administration, complete and return it to the Financial Aid Office.
If you are a transfer student:
- Follow these same two steps and
- Have all schools you've attended in the past send a financial aid transcript to the Financial Aid Office, Room 106, Student Services Center, UW-Stevens Point, Stevens Point, WI 54481.
If you are a continuing student:
- We will send you new application materials during the first semester of each year if you have received aid in the past.
- You may pick up the application form at the Student Financial Aid Office if you have not received aid in the past.


## How Do You Award Financial Aid?

The Financial Aid Office administers UW-Stevens Point's various financial assistance programs which help students pay their college expenses. They award you funds from need-based programs based on your family's income and assets, the size of your family, the number of family members in college, and other information which you provide on your application form.
To be eligible for this type of assistance, you must:

- Demonstrate a financial need,
- Be admitted to a UW-Stevens Point degree program,
- Not be in default on a student loan,
- Not owe a repayment on a student grant, and
- Be enrolled at least half time.

If you enroll less than full time, your financial aid may be reduced.

## What Financial Aid May I Receive?

When you apply for financial aid, we consider you for all programs listed below which are based upon need. You may also apply for other forms of assistance.
The following categories of aid are based on need.
Grants and Waivers

- Indian Student Assistance-State awards, up to $\$ 1,800$, which are usually matched with a tribal grant to Wisconsin Indian students who show financial need.
- Pell Grant-Awards up to $\$ 2,300$ to undergraduates determined by the Pell Grant Administration based on need and the cost of room, board, and tuition.
- Supplemental Educational Opportunity Grant-Awards up to $\$ 2,000$ to exceptionally needy undergraduate students,
- Wisconsin Handicapped Grant-A wards up to $\$ 1,800$ to legally deaf or blind students.
- Wisconsin Higher Education Grant-A wards up to $\$ 1,200$ per academic year as determined by the Wisconsin Higher Educational Aids Board based on need.
- Wisconsin Talent Incentive Program-Awards up to $\$ 1,800$ to disadvantaged Wisconsin residents in their first or second years of college study.
- Wisconsin Tuition Waiver-A partial waiver of the nonresident fee for full-time students, based on need, debt, class level, and eligibility for other grants.


## Jobs

- College Work Study Program-For jobs paying up to $\$ 1200$ per academic year, awarded on the basis of need and educational indebtedness, contact the Student Employment Office.


## Loans

- Perkins Loans (formerly National Direct Student Loan)-Loans of up to $\$ 2,250$ per year made to undergraduate students who demonstrate high need.
- Private Lender Guaranteed Student Loan-Loans of up to $\$ 2,625$ per year for the first two undergraduate years, $\$ 4,000$ per year for the remaining years and up to $\$ 7,500$ per year for graduate study to students who can demonstrate need. Apply directly to a bank, credit union, or savings and loan.
You may be eligible for the following types of aid whether or not you can demonstrate need.


## Jobs

- The Job Location and Development Program-They will help you find a job on campus or elsewhere in Central Wisconsin. To apply, contact the Student Employment Office, Room 003, Student Services Center, (715) 346-2174.
- Other Campus Jobs-You may also apply for campus jobs through the university food service and through the regular student assistance program. Contact the food service and individual department chairs.
- Cooperative Education Program - In this program, you are involved in part-time or full-time work which complements your academic major or career goals. Contact the Career Services Office, Room 134, Main Building, (715) 346-3136.


## Loans

- PLUS Loan-Loans of up to $\$ 3,000$ per year to parents of dependent students and of up to $\$ 2,500$ per year to independent students. Pick up an application at a bank, credit union, or savings and loan.


## Scholarships

- Army ROTC Scholarship-Four-, three-, and two-year scholarships which provide tuition, textbooks, lab fees and other academic expenses, as well as a tax-free subsistence allowance of $\$ 100$ a month up to 10 months a year. Available to qualified military science students who accept a Regular Army commission and agree to spend four years on active duty. For more information, contact the chair of the Military Science Department, Room 204, Student Services Center, (715) 346-3821.
- Simultaneous Member Program-Provides a tax-free subsistence allowance of $\$ 100$ a month for up to 10 months a year plus Reserve or National Guard pay of about $\$ 125$ a month. After completing the two-year ROTC commissioning program, the student receives a commission as a Second Lieutenant in either the Army Reserve or National Guard. For more information, contact the chair of the Military Science Department, Room 204, Student Services Center, (715) 346-3821.
- Other Scholarship or Award-Other scholarships and awards are also available. Contact the Director of Alumni Relations and the individual UW-Stevens Point departments and programs.


## Military Service Benefits

A variety of financial aid programs help veterans and students in active reserve or in the National Guard. For full information on these programs, contact the Registration and Records Office, Room 101, Student Services Center, (715) 346-4301.

## How Much Do I Pay for Tuition and Fees?

Here is what you would have to pay if you were enrolling for the 1986-1987 school year. The costs will probably change somewhat by the time you read this. To find out the most current costs, either read the current timetable, visit the Accounts Receivable Office, Room 105G, Student Services Center, or call them at (715) 346-4796.

## Wisconsin Residents

| Credits | Undergraduate <br> Costs | Graduate <br> Costs $^{*}$ | Undergraduate <br> Costs | Graduate <br> Costs |
| :---: | :---: | :---: | :---: | :---: |
| 1 | $\$ 71.85$ | $\$ 110.75$ | $\$ 58.25$ | $\$ 91.75$ |
| 2 | 143.20 | 221.00 | 116.50 | 183.50 |
| 3 | 214.55 | 331.25 | 173.55 | 274.05 |
| 4 | 285.90 | 441.50 | 227.20 | 361.20 |
| 5 | 357.25 | 551.75 | 280.85 | 448.35 |
| 6 | 421.55 | 654.95 | 334.50 | 453.30 |
| 7 | 474.15 | 746.45 | 334.50 | 453.30 |
| 8 | 526.75 | 837.95 | 334.50 | 453.30 |
| 9 | 579.35 | 929.95 | 334.50 | 534.30 |
| 10 | 631.95 |  | 379.50 | 615.30 |
| 11 | 684.55 |  | 424.50 |  |
| $12+$ | 738.15 |  | 469.50 |  |
|  |  |  |  |  |

## Minnesota Residents

|  | $\$ 78.85$ | $\$ 101.25$ | $\$ 68.25$ | $\$ 89.75$ |
| ---: | :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | 157.20 | 202.00 | 136.50 | 179.50 |
| 2 | 235.55 | 302.75 | 203.55 | 268.05 |
| 3 | 313.90 | 411.50 | 267.20 | 353.20 |
| 4 | 392.25 | 504.25 | 330.85 | 438.35 |
| 5 | 463.55 | 597.95 | 394.50 | 443.30 |
| 6 | 523.15 | 679.95 | 394.50 | 443.30 |
| 7 | 582.75 | 761.95 | 394.50 | 443.30 |
| 8 | 642.35 | 844.45 | 394.50 | 612.30 |
| 9 | 701.95 |  | 449.50 |  |
| 10 | 761.55 |  | 504.50 |  |
| 11 | 822.15 |  | 559.50 |  |
| $12+$ | 8 |  |  |  |

NOTE: To receive the Minnesota rate, apply for reciprocity at the appropriate Minnesota agency. Your high school counselor can give you information on them.

|  | All Others |  |  |  |
| ---: | ---: | ---: | ---: | ---: |
|  | $\$ 188.85$ | $\$ 306.25$ | $\$ 168.25$ | $\$ 263.75$ |
| 1 | 377.20 | 612.00 | 336.50 | 527.50 |
| 2 | 565.55 | 917.75 | 503.55 | 790.05 |
| 3 | 753.90 | 1223.50 | 667.20 | 1049.20 |
| 4 | 942.25 | 1529.25 | 830.85 | 1308.35 |
| 5 | 1123.55 | 1827.95 | 994.50 | 1313.30 |
| 6 | 1293.15 | 2114.95 | 994.50 | 1313.30 |
| 7 | 1462.75 | 2401.95 | 994.50 | 1313.30 |
| 8 | 1632.35 | 2688.95 | 994.50 | 1566.30 |
| 9 | 1801.95 |  | 1149.50 | 1819.30 |
| 10 | 1971.55 |  | 1304.50 |  |
| 11 | 2139.65 |  | 1459.50 |  |
| $12+$ |  |  |  |  |

*The total cost includes tuition (also called the incidental fee) and six segregated fees: University Center fee for the three UW-Stevens Point campus centers, student activity
fee for recreational activities and services, text rental fee (for undergraduates only), student health fee for medical care, facility reserve fee for residence hall major maintenance, and United Council fee. For a more complete break-down, call the Accounts Receivable Office, Room 105, Student Services Center, (715) 346-4796.
The 50 cents United Council fee funds the United Council of UW Student Governments. The Council consists of representatives from all UW campuses, lobbies on behalf of students, and works to improve student life and services throughout the UW System. If you want a refund of your 50 cents United Council fee, write to the United Council of UW Student Governments, Room 305, 1930 Monroe Street, Madison, WI 53711. If you are 62 years of age or older, are auditing courses, or are taking off-campus courses, you are exempt from the United Council fee.

## Am I Eligible for Wisconsin Resident Rates?

According to Section 36.27 of the Wisconsin Statutes, you
are eligible for the resident tuition rate if you are:

- An adult who has resided in the state for 12 months before the semester or session for which you are registering,
- A minor whose parents have resided in the state for 12 months before the semester or session for which you are registering,
- A minor whose parents are divorced or legally separated who has resided "substantially" in the state and resided here at least 12 months before the semester or session for which you are registering,
- A minor student who is an orphan and who has resided "substantially" in this state and resided here at least 12 months before the semester or session for which you are registering or whose legal guardian has resided here for 12 months before the semester or session for which you are registering,

- A minor under guardianship (under Chapters 48 or 880 ) who has resided "substantially"' in the state and resided here at least 12 months before the semester or session for which you are registering,
- An adult employed as a migrant worker for at least two months each year for three of the five years before the semester for which you are registering, or for at least three months each year for two of the five years before the semester for which you are registering; or an adult whose parent or legal guardian was so employed when you were a minor; or a minor whose parent or legal guardian was so employed,
- A nonresident member of the armed forces stationed in the state for purposes other than education, or the spouse or child or such an individual while that person is stationed here,
- A graduate of a Wisconsin high school whose parents resided in the state for 12 months before the semester or session for which you are registering, or whose last surviving parent resided here for 12 months before her or his death.
Contact the Admissions Office, Room 102, Student Services Center, 346-2441, for futher information about your proper classification. If you become a resident after enrolling at UW-Stevens Point, be sure to fill out the proper forms at the Admissions Office.


## When Do I Pay My Tuition and Fees?

You may pay for your tuition and fees in either of two ways:

1. Full Payment Plan-If you elect this plan, pay your tuition and fees before the first day of classes. If you delay payment until the second week of classes, you will have to pay a $\$ 20$ penalty. If you delay payment until the third or fourth week, you will have to pay a $\$ 30$ penalty. If you don't pay by the fifth week, your registration at UW-Stevens Point will be cancelled.
2. Partial Payment Plan-If you choose this plan, you pay your fees, tuition, and miscellaneous charges in three installments: on the first day of classes, about the seventh week of classes, and about the eleventh week of classes. However, you pay a finance charge for each billing period in which you have not paid the balance in full by the billing due date. You also pay the same late payment penalties that you would under the full payment plan.
Please note that if you withdraw from school before paying in full, you must still pay whatever amount is due for the semester. See How Do I Get a Refund of Tuition and Fees? for information on how much you pay, depending on the point in the semester when you withdraw from UW-Stevens Point.

## Finance Charges

These begin on the first day of classes. We calculate them on your previous balance (exclusive of previous finance charges) reduced by the payments you have made and credits we have applied during the billing period. We calculate the finance charge at the rate of . 041095 percent per day ( 1.25 percent per month or 15 percent per year) on the portion of your balance which is $\$ 500$ or less. We calculate it at the rate of .032877 percent per day, (1 percent per month or 12 percent per year) on the portion of your balance which is over $\$ 500$.
If you are an undergraduate special student or graduate special student, you will be billed according to the majority of course level credits for which you enroll. Courses
numbered 100 to 499 are undergraduate courses; courses numbered 500 to 799 are graduate courses. If you have been admitted to the Graduate School you must pay graduate fees.
To avoid or reduce your finance charges, you may pay more than your required minimum payment at any time. You may also pay your remaining balance completely at any time.

## Billing Under the Partial Payment Plan

1. First payment - On or before the first day of class, pay 100 percent of any previous balance plus finance charges and 40 percent of the current semester's charges.
2. Second payment-At about the seventh week of class, pay 50 percent of your new balance plus the finance charges.
3. Third payment-At about the eleventh week of classes, pay 100 percent of the remaining balance plus all remaining finance charges.
4. Fourth payment - Pay any further charges plus all finance charges at about the 15th week of classes.
We continue to add finance charges until you pay your balance in full. Until you pay, you receive no transcripts, or diplomas; you are also unable to enroll for future courses under the partial payment plan until you have paid in full.
Note that if you are more than 30 days late in paying on your account, we may withdraw you from UW-Stevens Point. We also reserve the right to change the due dates and amounts without giving previous notice.

## How Do I Pay My Tuition and Fees?

If you choose the partial payment plan, sign a credit agreement application card when you register or when you go through Checkpoint. Along with your registration materials, you receive full instructions on how to pay your fees.
If you make delayed payments from financial aid, loans, grants, scholarships or vocational rehabilitation awards, also sign the credit agreement application card. You are responsible for the finance charges on your unpaid balance.

## What If My Bill Is Wrong?

If you think your bill is wrong, then within 60 days of receiving your billing statement, write us a note about the error. Be sure to include your name, your student ID number, the amount of the error, and a brief explanation of why your bill is wrong. Mail the note to: Accounts Receivable Office, Room 105G, Student Services Center, UW-Stevens Point, Stevens Point, WI 54481.
If only part of your bill is wrong, then pay the correct portion of the bill by the due date.

## How Do I Get a Refund of Tuition and Fees?

Write a note to the Registrar's Office as soon as you decide to cancel your enrollment at UW-Stevens Point. If we receive your note before the first day of classes telling us that you are cancelling your registration, we refund your tuition and all your academic fees. If we receive your note after the first day of classes, you may have to pay a $\$ 30$ withdrawal fee.
See the section of this catalog entitled Withdrawing from $U W$ - Stevens Point for further information on this subject. See the following table for information on the percentage of your tuition and fees we refund when you completely
withdraw from UW-Stevens Point after the first day of classes.

| Session | Withdrawal during Week |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Length (wks) | 1 | 2 | 3 | 4 | $4+$ |
| 12 or more | $100 \%$ | $80 \%$ | $60 \%$ | $40 \%$ | 0 |
| $10 \& 11$ | $100 \%$ | $80 \%$ | $60 \%$ | 0 | 0 |
| 6 thru 9 | $100 \%$ | $70 \%$ | $30 \%$ | 0 | 0 |
| 5 | $100 \%$ | $60 \%$ | $20 \%$ | 0 | 0 |
| 4 | $100 \%$ | $40 \%$ | 0 | 0 |  |
| 3 | $100 \%$ | $30 \%$ | 0 |  |  |
| 2 | $100 \%$ | 0 |  |  |  |

We use this same refund schedule to determine how much money to refund if, when you drop one or more courses, you are less than a full-time student. If you both add and drop courses, we determine your refund or additional tuition and fees on the basis of the total of your adds and drops. We never charge more than full-time tuition and fees.

## How Much Does it Cost to Live on Campus?

At UW-Stevens Point, most students live in residence halls until they have completed four semesters of college work. However, if you are married, a veteran, living with your parents, or receive a special exemption because you have been out of school two years or more, you need not comply with this requirement.
You will find living in a residence hall an integral and dynamic part of your education at UW-Stevens Point. Through your hall you may partake in educational, social, and athletic programs, as well as other activities. You may vote to elect the student governing and programming bodies which direct your hall's activities. Professionally trained residence hall staff members are also on hand to counsel you on how to establish your university career on a firm foundation.

In 1986-87, students paid $\$ 475$ each semester for a double room and $\$ 666$ each semester for a single room in a residence hall. In the summer of 1986 , students paid $\$ 230$ for a double room, $\$ 300$ for a single room.
As a hall resident, you may select a meal plan which provides either 14 or 20 meals each week. Until your junior year, your residence hall contract covers your room and board for the entire academic year. As a junior, you may request a semester contract.
Each semester in 1986-87, students paid $\$ 554$ for a 14 -meal plan and $\$ 569$ for a 20 -meal plan. In the summer of 1986 students paid $\$ 320$ for a 14 -meal plan and $\$ 338$ for a 20 meal plan.

## How Do I Get a Refund of My Room and Board?

If you want to receive a refund of your room reservation deposit on an academic year contract, request one before July 1. If you want to receive a refund of your room reservation deposit on a second semester contract, request one before December 1. If you are a junior or senior using the one-semester option, you may receive a refund of your deposit at the end of the semester.
If you get married, do student teaching, or participate in curricular programs which require off-campus living, you may request to be released from a residence hall agreement which you have made. To do this, go to the Office of Residence Life in the lower level of Delzell Hall.
If you withdraw from UW-Stevens Point, you must also terminate your residence hall agreement. For further information on this subject, see the section of this catalog entitled Withdrawing from UW-Stevens Point.
We prorate all refunds for room and board from the Monday after you terminate your contract.


## Majors, Minors \& Master's

The following chart lists every subject in which you may major or minor at UW-Stevens Point.
The colleges are abbreviated as follows: $\mathrm{CNR}=$ College of Natural Resources, COFA = College of Fine Arts, COPS = College of Professional Studies, and L\&S = College of Letters and Science.

The specific bachelor's and master's degrees we offer are abbreviated as follows. BA $=$ Bachelor of Arts, BFA = Bachelor of Fine Arts, BM = Bachelor of Music, BS = Bachelor of Science, MA $=$ Master of Arts, MAT $=$ Master of Arts in Teaching, MBA = Master of Business Administration, MME = Master of Music Education, MS = Master of Science, MSE = Master of Science in Education, MSSE - Master of Science in Special Education, MST = Master of Science in Teaching, and SE $=$ Specialist in Education.

| Program | College | Bachelor's | Master's |
| :---: | :---: | :---: | :---: |
|  |  | Minor Major |  |
| American Studies | L\&S | BA BS |  |
| Anthropology | L\&S | BA BS |  |
| Applied Mathematics | L\&S |  |  |
| Applied Music (Option) | COFA | BM |  |
| Art | COFA | BFA |  |
| Art Education | COFA | BA BS |  |
| Art History | COFA |  |  |
| Astan Studies | LQS |  |  |
| Audiology | COPS |  | MS in Com.Dis. |
| Biology | L\&S | BA BS | MAT MST |
| Business Administration | L\&S | BA BS | MBA with |
|  |  |  |  |
| Camp \& Youth Agency <br> Admin/Programming | CNR | * |  |
| Chemistry | L\&S | BA BS |  |
| Coaching | COPS | * ${ }^{\text {a }}$ |  |
| Communication | COFA | BA BS | MA |
| Communicative Disorders | COPS | BS | MS |
| Comparative Literature | L\&S | * |  |
| Computer Info Systems | L\&S | BS |  |
| Dance (Theatre Arts) | COFA | BA BS |  |
| Dance Ed (Theatre Arts) | COFA | BA BS |  |
| Dietetics | COPS | BS |  |
| Drama (Theatre Arts) | COFA | BA BS |  |
| Drama Ed (Theatre Arts) | COFA | BA BS |  |
| Early Childhood Education | COPS | BS |  |
| Early Childhood Education: | COPS | BS | MSSE |
| Exceptional Ed Needs |  |  | with UW-Oshkosh |
| Earth Science ${ }^{\text {a }}$ | L\&S | * |  |
| Economics | L\&S | BA BS |  |
| Education (General) | COPS |  | MSE |
| Educational Administration | COPS |  | MSE and SE with |
|  |  |  | UW-Superior and UW-Madison |
| Elementary Education | COPS | BS | MSE |
| Elementary Ed: Reading | COPS |  | MSE |
| Elementary Ed: Special Learning Disabilities | COPS |  | MSE |
| English \% | L\&S | BABS | MAT MST |
| Environ. Communication | CNR | * ${ }^{\text {a }}$ |  |
| Environmental Education/ Interpretation | CNR | * | MS in Nat. Resources |
| Environ. Law Enforcement | CNR | * |  |
| Environmental Studies | L\&S |  |  |
| Fashion Merchandising | COPS | BS |  |
| Fisheries, | CNR |  | MS in Nat.Res. |



## General Degree Requirements

## What Are the General Degree Requirements?

In this section you will find the general requirements (GDRs) you must meet in order to receive a baccalaureate degree from UW-Stevens Point. Check under the appropriate heading for information on the bachelor of arts (B.A.), bachelor of science (B.S.), or bachelor of music (B.M.) and bachelor of fine arts (B.F.A.) degree.
Meet with your academic adviser for help in choosing which degree to work toward. After choosing one, check with your adviser or your department chair for specific requirements of the department and college in which you major.
Note that we do not offer, each semester or even each year, some courses listed below as satisfying general degree requirements. Check the current timetable. General degree requirements are satisfied only by completing the courses listed. There are no substitutions.
In some cases, your college may allow you to apply courses which you take as part of your general degree requirements toward your major or minor. Your adviser will describe your college's policy on this. Although your college may impose additional requirements, it may not waive any of the general degree requirements.
Requests for waivers or substitutions of requirements for all degrees should be made to the Student Assistance Center which may then refer your request to the appropriate dean, associate dean, or department chair.
After you complete the requirements for one degree, if you wish to earn a second and different degree, you may do so by taking at least 30 additional credits and completing the requirements for the second degree.

## Test-Out Procedures for GDR Courses.

The following test-out procedures apply to GDR courses marked with a single asterisk (*). See the appropriate department chair for information on testing out of courses listed in sections marked with a double asterisk (**).
A. English: You take this exam during orientation/registration.

- If you receive two evaluations of exemption on your placement examination, you are placed in English 102.
- If you are placed in English 102 and complete it with a grade of "B" or better, you receive 3 retroactive credits for English 101 as well as the 3 credits for English 102.
B. Communication: To be eligible to take the test-out examination for Communication 101, you must:
- Have earned a grade of " $B$ '" or better in a yearlong high school course in speech communication, or
- Have competed at the state level in high school debate or competitive forensics in an "Original

Oratory," "Extemporaneous Speaking," or "Public Address" event.
You must then take a written examination testing basic concepts in public speaking. If you receive a passing grade on this examination you must deliver a six to seven minute original persuasive speech extemporaneously to a three-judge panel. If you receive an average grade on your oral presentation of " $B$ " or better, you may either be exempt from Communication 101 or be placed in an advanced public speaking course. If you choose the second option and complete the course with a grade of " $B$ " or better, you will receive 2 credits for Communication 101 as well as the credits for the course you complete.
C. Mathematics: You take this exam during orientation/registration. See the following table to determine which courses you should take to satisfy the general degree requirements in mathematics.

- If you are a new first-year student, just look up the course into which you place by examination. If you don't know how you placed on the examination, check with the Student Assistance Center, Room 103, Student Services Center.
- If you are a transfer student, go to the Admissions Office to determine which course you place into; then look up that course on this table.


## Placement

## Mathematics Courses

1. 50
2. 51
3. 100
4. Any of 102, 106, 115,

116, 117, 227, 228, 355
5. Any of $102,115,116$, $117,227,228,355$
6. Any of $106,115,116$, 117, 227, 228, 355
7. Any of $106,115,116$, $117,227,228,355$
8. Any of $108,115,116$, 117, 227, 228, 355
9. Any of $120,115,116$, 117, 227, 228, 355

Courses to Be Completed for GDR
B.A.

50, 51, 100
51, 100
100
Complete
Complete
Complete
Complete
Complete
Complete
B.S. and B.M./B.F.A.
$50,51,100,4 \mathrm{cr}$ beyond 100 $51,100,4 \mathrm{cr}$ beyond 100 100,4 cr beyond 100 4 cr beyond 100

2 cr beyond 100 not incl 106
2 cr beyond 100 not incl 102
Complete
Complete
Complete

NOTE: You may satisfy the requirement for 4 credits beyond 100 with Mathematics 102, 106, 108, 115, $116,117,227$. (if you are an early childhood education major), 228 (if you are an elementary education major) and 355. To take Mathematics 102, $106,115,116,227,228$, or 355 , you must first take Mathematics 100. To take Mathematics 108, you must first take Mathematics 102.
D. Foreign Language: You may test out of part or all of the foreign language requirement by taking a standardized exam in the foreign language from the Foreign Language Department. You may also receive up to 16 credits for prerequisite courses by passing foreign language courses 102-313. For further information, contact the Foreign Language Department, Room 490, Collins Classroom Center, (715) 346-3036.

## BACHELOR OF ARTS

1. Verbal and Quantitative Skills, 10 credits + Writing Emphasis (WE) required.
A. Freshman English.* 6 credits required: English 101 and 102 .
Writing Emphasis (WE). 6 credits required. English $101 \& 102$ are prerequisites to WE courses. We recommend that, after successfully completing English 102, you take one WE course before completing 75 credits and one WE after completing 75 credits. You must take at least one WE course outside your major. See the timetable to find out which courses we offer as WE. You may use WE courses simultaneously to fulfill electives, major requirements, or general degree requirements.
If you are a transfer student with fewer than 60 semester credits, you must take 6 credits of writing emphasis courses. If you transfer with 60 or more credits, you need to take only 3 credits of writing emphasis courses.
B. Communication. ${ }^{\star} 2$ credits required; Communication 101.
C. Mathematics. ${ }^{\star} 2$ credits required, Mathematics 100 or equivalent.
2. Critical Thinking/Natural Science.** Natural Science. 6 to 10 credits required. You must take at least one laboratory course in each of two disciplines. See the catalog under the specific natural science department or under your major to determine what sequence of courses to take and what restrictions apply on taking more than one course in a discipline. Note that you may not obtain credit for both Geography 103 and Geology 104.
Astronomy 100, 105, 106.
Biology 100 or $101,130,160,333$.
Chemistry 100 or $101,105,106,114$ and $115,116$.
Geography 100 or $101,102,103$.
Geology 100 or 101, 104, 105 .
Physics 100 or $101,103,104,150,250$.
3. Critical Thinking/Natural Science.** 32 credits required. You must take at least 3 credits in courses designated non-Western (NW) culture.
A. History.** 6 credits of a two-course sequence required. History $105-106,106-107,107-108,211-212$, 215-216(NW), 219-220(NW), 253-254(NW), 307-308, 337-338(NW), 345-346(NW), 377-378.
Humanities and Social Science. 18 credits required, of which 9 must be in humanities and 6 must be in social science. The remaining 3 credits are from either humanities or social science.
B. Humanities. 9 to 12 credits. One course required in each of areas (1), (2), and (3). If you elect 12 credits in the humanities, you may select the additional course from any of the four areas.

## Humanities Area 1.

History and appreciation of art, communication, dance, drama, music:
American Studies 301.
Art 181, 282, 283, 284(NW), 347(NW), 381,
382(NW), 383, 384, 385, 386, 387, 388(NW), 389.
Communication 121, 125, 171, 272, 355, 362, 363, 369.

Dance 101.
Drama $105,329,351,352,410,412,490$.
Fashion/Interior Design 309, 310, 329.
Honors 100, 150.
Music 100, 102, 220, 221, 300 (NW when offered in
Malaysia or Taiwan programs), 301, 304, 305, 320, $321,323,326,329,426,427,428(\mathrm{NW})$.

## Humanities Area 2

Literature:
Comparative Literature 101, 102, 317.
Drama 213, 215.
English $103,106,108,170,200,203,211,212,213$,
214,280 (NW), 282, 283, 285, 288, 289, 303, 308,
$310,311,312,313 \mathrm{a}, 313 \mathrm{~b}, 314,319,329,330,333$,
$334,336,361,362,363,364,366,378,382,383$.
French $340,341,342,350,355,360,370,493$.
German 340, 355, 360, 370, 441, 442, 493.
Honors 100, 150.
Russian 360(NW), 370(NW), 493 (NW).
Spanish 340, 341, 342, 353, 354, 493.

## Humanities Area 3

Philosophy, political theory, and religious studies:
Honors 100, 150.
Philosophy 100, 101, 102, 104, 105 (NW), 121, 217 , $218,220,300,301,302,303,304,305,306,307$, $308,309,315,320,330,331$ (NW), 332, 335(NW), 337 (NW), $338(\mathrm{NW}), 340,380,381$ (NW).
Political Science 391, 392, 393, 394.
Religious Studies $100(\mathrm{NW}), 101,102,103,104,301$, $310,311,315,316(\mathrm{NW}), 321,330$.

## Humanities Area 4

Civilization, area studies, and interdisciplinary courses:
American Studies $103,104,201,202,300,302$.
Foreign Language 330.
French 331.
German 331.
Honors 100, 150.
Latin American Studies 100.
Russian 331(NW).
Spanish 331.
Women's Studies 300.
C. Social Science.** 6 to 9 credits required, from two or more social science disciplines, with a minimum of 6 credits in category (1) and up to 3 additional credits from courses in category (1) or category (2). Note that you may not count both Human Development 261 and Psychology 260 toward the social science requirement. Note also that you may count Human Development 367 toward either the social science requirement or toward the physical education (health enhancement) requirement, but not both.
Social Science Category 1
Anthropology 101 (NW), 250 (NW), 295 (NW), 310, $312(\mathrm{NW}), 334,335(\mathrm{NW}), 336(\mathrm{NW}), 337 \mathrm{NW})$, 338(NW), 339(NW), 370(NW).
Economics 100, 210, 211, 311, 328, 345.
Geography 110 (NW), 113 (NW), $120(\mathrm{NW}), 211,226$, $270,272,300(\mathrm{NW}), 301(\mathrm{NW}), 302(\mathrm{NW}), 327(\mathrm{NW})$, 328,329 (NW), 330 (NW), $340,368,369,373,374$.
Honors 301.
Political Science 101, 102, 206(NW), 212, 242, 250, $280,301,361,364(\mathrm{NW}), 370$ (NW), 497.
Psychology 110, 240, 250, 260, 315, 320, 330.

Sociology 101, 102, 224, 225, 230, 240, 260, 265, $270,300,310,322(\mathrm{NW}), 327,370(\mathrm{NW})$.
Social Science Category 2
Communication 211, 217.
Economics 204,
Honors 301.
Human Development 261, 367, 372.
Natural Resources 170, 372.
Political Science 354, 356.
Social Science 308, 315, 328, 357, 359, 366, 368.
Women's Studies 105.
D. Foreign Language,* 8 credits; one year of college work in one of the following sequences:
Chinese 101-102(NW).
French 101-102.
German 101-102.
Polish 101-102.
Russian 101-102(NW).
Spanish 101-102.
4. Technology and Contemporary Issues. 3 credits required-offered only at junior and senior level. We recommend that you complete the natural science component before meeting this requirement. Choose one of these:
Anthropology 373.
Biology 304, 327.
Education 384.
English 391.
Forestry 350.
Geography 375, 391.
History 393, 394.
Honors 375.
Human Development 381.
Medical Technology 395.
Natural Resources 320, 370, 478.
Peace Studies 340.
Philosophy 327.
Psychology 393.
Sociology 373.

Water 350.
Wildlife 320.
5. Physical Education and Health Enhancement.** 4 credits required.
A. Take 2 credits in aerobics/activity (A/A) from the following:
Dance 103, 104, 105, 106, 108, 110, 203, 204, 205, 206, 211, 212, 227, 303, 304, 305, 306, 327, 403, 404, 405, 406.
General Physical Education 100 to 198 (labeled A/A in the timetable). Physical Education 225, 231.
B. Take 2 credits in health enhancement from the following:
Food and Nutrition 151.
General Physical Education 100 to 198 (labeled HE in the timetable).
Health Education 104, 140.
Human Development 367.
Physical Education 102, 252.
Psychology 255, 290.
Safety Education 177.
6. Minimum Credits for Graduation. To graduate, you must earn at least 124 credits in your major and approved electives. In certain majors, you'll need more than 124 credits. Read the section of this catalog entitled Courses of Instruction to find out how many credits your major requires.
7. Forty Credit Rule. To graduate, you must earn at least 40 credits in courses numbered 300 or above.
8. Graduation Form and Approval. Fill out an "Application for Graduation" form at the beginning of your senior year, when you have accumulated 86 credits toward your degree (excluding required physical education credits). We will grant you a bachelors degree only if you complete the general degree requirements and at least one major (and one minor if applicable) that is approved for your degree area.

## BACHELOR OF SCIENCE

1. Verbal and Quantitative Skills. 14 credits + Writing Emphasis (WE) required.
A. Freshman English.* 6 credits required: English 101 and 102 .
Writing Emphasis (WE). 6 credits required. English $101 \& 102$ are prerequisites to WE courses. We recommend that, after successfully completing English 102, you take one WE course before completing 75 credits and one WE after completing 75 credits. You must take at least one WE course outside your major. See the timetable to find out which courses we offer as WE. You may use WE courses simultaneously to fulfill electives, major requirements, or general degree requirements. If you are a transfer student with fewer than 60 semester credits, you must take 6 credits of writing emphasis courses. If you transfer with 60 or more credits, you need to take only 3 credits of writing emphasis courses.
B. Communication.* 2 credits required. Communication 101.
C. Mathematics.* 6 credits required: Mathematics 100 plus 4 credits from Mathematics $102,106,108,115$, $116,117,227,228,355$.
2. Critical Thinking/Natural Science.** Natural Science. 12 to 15 credits required. You may receive GDR credit for no more than one course numbered 100 , and you must take at least one laboratory course in each of two disciplines. Courses without a lab are designated below as NL. See the catalog under the specific natural science department or under your major to determine what sequence of courses to take and what restrictions apply on taking more than one course in a discipline. Note that you may not obtain credit for both Geography 103 and Geology 104.
Astronomy 100 or 311 (NL), $105,106$.
Biology 100 or $101,130,160,285,333$.
Chemistry 100 or $101,105,106,114$ and $115(\mathrm{NL}), 116$.
Geography 100 or $101,102,103$.
Geology 100 or $101,104,105$.
Physics 100 or $101,103,104,150,250$.
3. Critical Thinking/Cultural Awareness. 21 credits required. You must take at least 3 credits in courses designated non-Western (NW) culture.
A. History. ${ }^{* *} 3$ credits from the following: History 105 , $106,107,108,120,130,211,212,330,332,334$, 366, 373.
Humanities and Social Science. 18 credits required, of which 6 must be in humanities and 6 must be in social science. The remaining 6 credits can be from either humanities or social science.
B. Humanities. 6 to 12 credits. Select courses from at least two of the following areas, and apply no more than 3 credits of history to area 4 , "Civilization, area studies, and interdisciplinary courses."

## Humanities Area 1

History and appreciation of art, communication, dance, drama, music:
American Studies 301.
Art 181, 282, 283, 284(NW), 347(NW), 381, 382(NW), $383,384,385,386,387,388$ (NW), 389. Communication 121, 125, 171, 272, 355, 362, 363,369.

Dance 101.
Drama 105, 329, 351, 352, 410, 412, 490.
Fashion/Interior Design 309, 310, 329.
Honors 100, 150.
Music $100,102,220,221,300$ (NW when offered in
Malaysia or Taiwan programs), 301, 304, 305, 320 , $321,323,326,329,426,427,428(\mathrm{NW})$.

## Humanities Area 2

Literature:
Comparative Literature 101, 102, 317.
Drama 213, 215.
English 103, 106, 108, 170, 200, 203, 211, 212, 213,
$214,280(\mathrm{NW}), 282,283,285,288,289,303,308$,
$310,311,312,313 \mathrm{a}, 313 \mathrm{~b}, 314,319,329,330,333$,
334, 336, $361,362,363,364,366,378,382,383$.
French $340,341,342,350,355,360,370,493$.
German 340, 355, 360, 370, 441, 442, 493.
Honors 100, 150.
Russian 360(NW), 370(NW), 493 (NW).
Spanish 340, 341, 342, 353, 354, 493.

## Humanities Area 3

Philosophy, political theory, and religious studies:
Honors 100, 150.
Philosophy 100, 101, 102, 104, 105(NW), 121, 217,
$218,220,300,301,302,303,304,305,306,307$, $308,309,315,320,330,331$ (NW), 332,335 (NW), 337(NW), 338(NW), $340,380,381$ (NW).
Political Science 391, 392, 393, 394.
Religious Studies 100 (NW), 101, 102, 103, 104, 301, $310,311,315,316(\mathrm{NW}), 321,330$.

## Humaníties Area 4

Civilization, area studies, and interdisciplinary courses:
American Studies $103,104,201,202,300,302$. Foreign Language 330.
French 331.
German 331.
History 215(NW), 216 (NW), 219 (NW), 220(NW). 253(NW), 254(NW), 302, 304, 305, 306, 309, 310, $312,313,315,316,318(\mathrm{NW}), 319(\mathrm{NW}), 321,331$, 333, 337(NW), 338(NW), 343(NW), 344(NW), 345(NW), 346(NW), 347 (NW), 348 (NW), 349(NW), 350(NW), 351 (NW), 352(NW), 377, 378, 379, 382(NW), 383, 385, 392. (Note that History 379, 382, and 385 meet the Wisconsin Department of Public Instruction's human relations requirement for teacher certification.)
Honors $100,150$.
Latin American Studies 100.
Russian 331(NW).
Spanish 331.
Women's Studies 300.
C. Social Science.** 6 to 12 credits required, from two or more social science disciplines, with a minimum of 6 credits in category (1) and up to 6 additional credits from courses in category (1) or category (2). Note that you may not count both Human Development 261 and Psychology 260 toward the social science requirement.
Social Science Category 1
Anthropology 101(NW), 250, 295(NW), 310, $312(\mathrm{NW}), 334,335(\mathrm{NW}), 336(\mathrm{NW}), 337 \mathrm{NW})$, 338(NW), 339(NW), 370(NW).
Economics 100, 210, 211, 311, 328, 345.
Geography $110(\mathrm{NW}), 113(\mathrm{NW}), 120(\mathrm{NW}), 211,226$,

270, 272, 300(NW), 301(NW), 302(NW), 327(NW), 328, 329(NW), 330(NW), 340, 368, 369, 373, 374. Honors 301.
Political Science 101, 102, 206(NW), 212, 242, 250, 280, 301, 361, 364(NW), 370(NW), 497.
Psychology 110, 240, 250, 260, 315, 320, 330.
Sociology 101, 102, 224, 225, 230, 240, 260, 265, 270, 300, 310, 322(NW), 327, 370(NW).

## Social Science Category 2

Communication 211, 217.
Economics 204.
Human Development 261, 367, 372.
Honors 301.
Natural Resources 170, 372.
Political Science 354, 356.
Social Science 308, 315, 328, 357, 359, 366, 368.
Women's Studies 105.
D. Foreign Language. None required.
4. Technology and Contemporary Issues. 3 credits required-offered only at junior and senior level. We recommend that you complete the natural science component before meeting this requirement.
Choose one of these:
Anthropology 373.
Biology 304, 327.
Education 384.
English 391.
Forestry 350.
Geography 375, 391.
History 393, 394.
Honors 375.
Human Development 381.
Medical Technology 395.
Natural Resources 320, 370, 478.
Peace Studies 340.
Philosophy 327.
Psychology 393.
Sociology 373.

Water 350.
Wildlife 320.
5. Physical Education and Health Enhancement.** 4 credits required.
A. Take 2 credits in aerobics/activity ( $\mathrm{A} / \mathrm{A}$ ) from the following:
Dance 103, 104, 105, 106, 108, 110, 203, 204, 205, 206, 211, 212, 227, 303, 304, 305, 306, 327, 403, 404, 405, 406.
General Physical Education 100 to 198 (labeled A/A in the timetable).
Physical Education 225, 231.
B. Take 2 credits in health enhancement from the following:
Food and Nutrition 151.
General Physical Education 100 to 198 (labeled HE in the timetable).
Health Education 104, 140.
Human Development 367.
Physical Education 102, 252.
Psychology 255, 290.
Safety Education 177.
6. Minimum Credits for Graduation. To graduate, you must earn at least 124 credits in your major and approved electives. In certain majors, you'll need more than 124 credits. Read the section of this catalog entitled Courses of Instruction to find out how many credits your major requires.
7. Forty Credit Rule. To graduate, you must earn at least 40 credits in courses numbered 300 or above.
8. Graduation Form and Approval. Fill out an "Application for Graduation" form at the beginning of your senior year, when you have accumulated 86 credits toward your degree (excluding required physical education credits). We will grant you a bachelors degree only if you complete the general degree requirements and at least one major (and one minor if applicable) that is approved for your degree area.

## BACHELOR OF MUSIC/BACHELOR OF FINE ARTS

1. Verbal and Quantitative Skills. 10 credits + Writing Emphasis (WE) required.
A. Freshman English.* 6 credits required: English 101 and 102 .
Writing Emphasis (WE), 6 credits required. English $101 \& 102$ are prerequisites to WE courses. We recommend that, after successfully completing English 102, you take one WE course before completing 75 credits and one WE after completing 75 credits. You must take at least one WE course outside your major. See the timetable to find out which courses we offer as WE. You may use WE courses simultaneously to fulfill electives, major requirements, or general degree requirements. If you are a transfer student with fewer than 60 semester credits, you must take 6 credits of writing emphasis courses. If you transfer with 60 or more credits, you need to take only 3 credits of writing emphasis courses.
B. Communication.* 2 credits required; Communication 101.
C. Mathematics*/Foreign Language.* Choose one of these two options:

- Mathematics: 6 credits required. Mathematics 100 plus 4 credits from Mathematics $102,106,108$, $115,116,117,227,228,355$.
- Foreign Language: 8 credits required; (in addition to placement into Mathematics 100) one year of college work in one of the following sequences: Chinese 101-102(NW).
French 101-102.
German 101-102.
Polish 101-102.
Russian 101-102(NW).
Spanish 101-102.

2. Critical Thinking/Natural Science.** Natural Science. 6 credits required. Emphasize the exploration/appreciation content of the 100 -level sciences. You must take at least one laboratory course in each of two disciplines. See the catalog under the specific natural science department or under your major to determine what sequence of courses to take and what restrictions apply on taking more than one course in a discipline. Note that you may not obtain credit for both Geography 103 and Geology 104. If you are a B.F.A. major in theatre arts/dance, take a physical lab course.
Astronomy 100 105, 106.
Biology 100 or $101,130,160,333$.
Chemistry 100 or $101,105,106,114$ and 115, 116.
Geography 100 or $101,102,103$.
Geology 100 or $101,104,105$.
Physics 100 or $101,103,104,150,250$.
3. Critical Thinking/Cultural Awareness. 24 credits required. You must take at least 3 credits in courses designated non-Western (NW) culture. You need a historical basis from which to view the growth, development, and future of your art discipline in the United States, in addition to the required art history component in your professional curriculum. If you seek teacher certification, you need History 211-212.
A. History.** 6 credits required. History $105,106,107$, $108,120,130,211,212,330,332,334,366,373$.
Humanities and Social Science. 18 credits required, of which 9 must be in humanities, and 6 must be in social science. The remaining 3 credits can be from either humanities or social science.
B. Humanities. 9 to 12 credits. One course required in each of areas (1), (2), and (3). If you elect 12 credits in the humanities, you may select the additional course from any of the four areas.

## Humanities Area 1

History and appreciation of art, communication, dance, drama, music:
American Studies 301.
Art 181, 282, 283, 284(NW), 347(NW), 381,
382(NW), 383, 384, 385, 386, 387, 388(NW), 389.
Communication $121,125,171,272,355,362,363$, 369.

Dance 101.
Drama 105, 329, 351, 352, 410, 412, 490.
Fashion/Interior Design 309, 310, 329.
Honors 100, 150.
Music $100,102,220,221,300$ (NW when offered in Malaysia or Taiwan programs), 301, 304, 305, 320, $321,323,326,329,426,427,428(\mathrm{NW})$.
Humanities Area 2
Literature:
Comparative Literature $101,102,317$.
Drama 213, 215.
English 103, 106, 108, 170, 200, 203, 211, 212, 213,
$214,280(\mathrm{NW}), 282,283,285,288,289,303,308$,
$310,311,312,313 \mathrm{a}, 313 \mathrm{~b}, 314,319,329,330,333$,
$334,336,361,362,363,364,366,378,382,383$.
French $340,341,342,350,355,360,370,493$.
German 340, 355, 360, 370, 441, 442, 493.
Honors $100,150$.
Russian 360(NW), 370(NW), 493(NW).
Spanish 340, 341, 342, 353, 354, 493.

## Humanities Area 3

Philosophy, political theory, and religious studies:
Honors 100, 150.
Philosophy 100, 101, 102, 104, 105(NW), 121, 217, $218,220,300,301,302,303,304,305,306,307$, 308, 309, 315, 320, 330, 331(NW), 332, 335(NW), $337(\mathrm{NW}), 338(\mathrm{NW}), 340,380,381(\mathrm{NW})$.
Political Science 391, 392, 393, 394.
Religious Studies $100(\mathrm{NW}), 101,102,103,104,301$, $310,311,315,316(\mathrm{NW}), 321,330$.

## Humanities Area 4

Civilization, area studies, and interdisciplinary courses:
American Studies 103, 104, 201, 202, 300, 302.
Foreign Language 330.
French 331.
German 331.
Honors 100, 150.
Latin American Studies 100.
Russian 331(NW).
Spanish 331.
Women's Studies 300.
C. Social Science.** 6 to 9 credits required, from two or more social science disciplines, with a minimum of 6 credits in category (1) and up to 3 additional credits from courses in category (1) or category (2). Note,
however, that you may not count both Human Development 261 and Psychology 260 toward the social science requirement.

## Social Science Category 1

Anthropology 101(NW), 250, 295(NW), 310, 312(NW), 334, 335(NW), 336(NW), 337(NW), 338(NW), 339(NW), 370(NW).
Economics 100, 210, 211, 311, 328, 345.
Geography $110(\mathrm{NW}), 113(\mathrm{NW}), 120(\mathrm{NW}), 211,226$, 270, 272, 300(NW), 301(NW), 302(NW), 327(NW), 328, 329(NW), 330(NW), 340, 368, 369, 373, 374.
Honors 301.
Political Science 101, 102, 206(NW), 212, 242, 250,
280, 301, 361, 364(NW), 370(NW), 497.
Psychology 110, 240, 250, 260, 315, 320, 330.
Sociology 101, 102, 224, 225, 230, 240, 260, 265, 270, 300, 310, 322(NW), 327, 370(NW).

## Social Science Category 2

Communication 211, 217.
Economics 204.
Honors 301.
Human Development 261, 367, 372.
Natural Resources 170, 372.
Political Science 354, 356.
Social Science 308, 315, 328, 357, 359, 366, 368.
Women's Studies 105.
4. Technology and Contemporary Issues. 0 credits required.
5. Physical Education and Health Enhancement.** 4 credits required.
A. Take 2 credits in aerobics/activity (A/A) from the following:

Dance 103, 104, 105, 106, 108, 110, 203, 204, 205, 206, 211, 212, 227, 303, 304, 305, 306, 327, 403, 404, 405, 406.
General Physical Education 100 to 198 (labeled A/A in the timetable).
Physical Education 225, 231.
B. Take 2 credits in health enhancement from the following:
Food and Nutrition 151.
General Physical Education 100 to 198 (labeled HE
in the timetable).
Health Education 104, 140.
Human Development 367.
Physical Education 102, 252.
Psychology 255, 290.
Safety Education 177.
6. Minimum Credits for Graduation. To graduate, you must earn at least 124 credits in your major and approved electives. In certain majors, you'll need more than 124 credits. Read the section of this catalog entitled Courses of Instruction to find out how many credits your major requires.
7. Forty Credit Rule. To graduate, you must earn at least 40 credits in courses numbered 300 or above.
8. Graduation Form and Approval. Fill out an
"Application for Graduation" form at the beginning of your senior year, when you have accumulated 86 credits toward your degree (excluding required physical education credits). We will grant you a bachelors degree only if you complete the general degree requirements and at least one major (and one minor if applicable) that is approved for your degree area.

# The Associate Degree 

Martha St. Germaine, Coordinator<br>Dean Smith Room, University Center<br>Phone: (715) 346-2045

Here are the general requirements for the associate degree. Be sure to tell your adviser while you are working toward your associate degree if you may eventually wish to go on for your bachelor's degree after completing your AD. Your adviser can help you select elective credits which are among the general degree requirements for the bachelor's degree.
In all of the following categories, you don't need to take courses in sequence unless one course is a prerequisite for another, and you don't have to complete a sequence.

1. English: Earn 6 credits: English 101 and 102 (or else be exempted through the department's test-out program).
2. Communication, Earn 2 credits, Communication 101 or an equivalent performance course in oral communication.
3. Complete one of the following:
A. Foreign Language-Earn 8 credits.

You must complete the equivalent of one year of college work in one foreign language before credit will count toward this requirement.
You are placed in foreign language courses on the basis of your high school records or on the basis of a placement examination. You receive no credit for courses you take at a lower level than that at which you are placed.
You may satisfy this requirement by completing two year-long units of high school work in one foreign language with a grade of "C" or better.
B. Mathematics-Earn 2 credits.

You are placed in mathematics courses on the basis of your high school records and your mathematics. placement examination. You receive no credit for courses you take at a lower level than that at which you are placed.
You may satisfy this requirement by completing three units of high school mathematics, excluding general mathematics, and achieving at least a " $C$ " average for the three units.
4. History, Humanities, and Social Science: Earn 12 credits in courses from at least two of these groups, but earn no more than 6 credits in any one group:
A. History: You may apply any history course toward this requirement.
B. Humanities: You may select from these:

- All courses in American studies.
- All courses in foreign language culture or civilization.
- All literature courses, whether in English or in another language, except English 274 and English 275. All colloquium and comparativrature courses meet this requirement.
- All cothe literature, history, philosophy, appreciation, and logic of art, communication, dance, drama, and music.
- All philosophy courses.
- If you aren't majoring or minoring in art, all specialized courses in art performance.
- All courses in religious studies.
- Honors $100,150,200$, or 300
- Latin American Studies 100.
- Peace Studies 230,240 , or 250 .
- Women's Studies 300 (Humanities Emphasis).

Remember that your may only take courses numbered 300 and above after you have accumulated 56 credits toward your degree.
C. Social Science: You may select from these:

- All economics courses.
- All political science courses.
- All psychology courses.
- All sociology or anthropology courses.
- Geography $110,113,120,211,226$.
- Natural Resources 170.
- Peace Studies 101.
- Women's Studies 105.

5. Natural Science: Select either A. or B.:
A. Earn 5 or 6 credits from these courses:

- Astronomy 105, 106.
- Biology 101, 130, 160.
- Chemistry 101, $105,106,114,115,116$.
$\bullet$ Geography 101, 102, 103.
- Geology 101, 104, 105.
- Physics $101,103,104,150,250$.

In any of these subjects, we will count toward this requirement either the 101 course or one or more courses numbered above 101, but not both.
B. Take two courses from this list:

- Astronomy 100.
- Biology 100.
- Chemistry 100.
- Geography 100.
- Geology 100.
- Physics 100.

Through these courses you will increase your knowledge, understanding, and appreciation of the sciences and their significance in our attempt to prosper in our environment. You may substitute another course for one on this list only if you have the consent of the coordinator of the Associate Degree Program.
6. Physical Education. Earn 2 credits of general physical education. Register for one section in each of your two academic years, but do not repeat the same activity at the same level. You may apply certain courses in dance toward this requirement. See the listings under the physical education and health enhancement section in the General Degree Requirements chapter of this catalog.
If you have a medically identified basis for special physical activity programs, contact the School of Health, Physical Education, Recreation, and Athletics during registration.
7. Additional approved work to total 62 credits.

- Earn a minimum of 15 credits, including the last 8 . at UW- Stevens Point.
- Achieve a cumulative GPA of 2.0 or better.
- Fill out an an application for the associate degree at the Registration and Records Office by the beginning of the semester or summer session in which you expect to complete your work toward the degree. If you don't do so at this time, you may apply up to two years after you complete the required work.


# College of Fine Arts (COFA) 

Paul M. Palombo, Dean

Room A202, College of Fine Arts Building
Phone: (715) 346-4920
The College of Fine Arts seeks to improve the human condition and further cultural literacy through the fine arts and communication. No matter what your major at UWStevens Point, fine arts and communication are a central concern in your education. You learn about them for humanistic and artistic as well as professional reasons.
You may also prepare for entry into a professional career by acquiring a liberal understanding of the arts and professional instruction in visual arts, communication, dance, drama, music, and prearchitecture. In your work in the College of Fine Arts you increase your understanding of. concepts, sensitivities, and skills which will be essential to you in your profession.
Whether or not you select a major in the College of Fine Arts, you may take part in three types of educational experiences offered here:

1. Courses in fine art and communication history, criticism, theory, and practice;
2. Practical application laboratories, field experiences, and internships; and
3. Production activities such as art exhibits, concerts, plays, forensics, radio, television, and film.
You are also invited to attend all COFA productions.

## The COFA Curriculum

For information on the courses to take in order to earn a bachelor of arts, bachelor of science, bachelor of music, or bachelor of fine arts degree, refer to the section of this catalog entitled General Degree Requirements. For
information on requirements for a master's degree, see the section of this catalog entitled The Graduate School.

## The COFA Major

In the College of Fine Arts, you may earn a bachelor of arts or bachelor of science in art education, communication, or theatre arts (with an option in dance, dance education, drama, or drama education); a bachelor of fine arts in art (with an emphasis in visual communication or studio art); or a bachelor of music (with an option in applied music, jazz, music education, music literature, or music theory/composition).
To earn your degree, successfully complete your general degree requirements, your work in your major, and approved electives totaling 124 credits.

## The COFA Minor

In the College of Fine Arts, you may minor in art, art education, art history, communication, dance, dance education, drama, drama education, or music.

## Teaching in COFA Fields

If you seek a certificate to teach at the secondary school level, with a major offered in the College of Fine Arts, you may either:

1. Complete the general degree requirements for your B.S. degree in the College of Professional Studies, or
2. Complete the general degree requirements for your bachelor of arts, bachelor of fine arts, bachelor of music, or bachelor of science degree in the College of Fine Arts.
See the Education section later in this catalog for complete information on your education requirements.
Nondegree Studies
You are invited to take part in noncredit courses of study offered through the American Suzuki Talent Education Center and the Conservatory for Creative Expression.


## The College of Letters and Science (L\&S)

Justus F. Paul, Dean
Eugene Johnson, Acting Associate Dean
William A. Johnson, Assistant Dean
Room 130, Collins Classroom Center
Phone: (715) 346-4224
Through the courses we offer in this college we help you to:

- Understand, effectively use, and appreciate the process of learning;
- Recognize the complexity of problems and improve your ability to develop creative solutions;
- Increase the breadth and depth of your understanding of the humanities, sciences, and social sciences;
- Succeed in your studies and in preparing for a career; and
- Join a community of teachers, scholars, and students who strive for high standards of academic achievement.


## The L \& S Curriculum

For information on the courses to take in order to earn either a bachelor of arts or bachelor of science degree, refer to the section of this catalog entitled General Degree Requirements. For information on requirements for a master's degree, see the section of this catalog entitled The Graduate School.
The L\&S Major


25 majors: American studies, anthropology, biology, business administration, chemistry, computer information systems, economics, English, French, geography, German, history, Latin American studies, managerial accounting, mathematics, natural science, philosophy, physics, political science, psychology, public administration and policy analysis, Russian and East Central European studies, social science, sociology, and Spanish.
In deciding which major to select, read the sections of this catalog under Courses of Instruction which deal with departments of greatest interest to you. Also read the student handbooks of these departments. Many departments have handbooks which describe their majors, minors and courses of study.
Declare your major by the time you have earned 56 academic credits (excluding required physical education). To do this, list your major in the appropriate blank on your registration card. Ordinarily, a department will accept you for major study. However, they may refuse to accept or continue you if your academic record does not satisfy their regulations. (See the section of this catalog entitled Declaring a Major or Minor under Academic Information.)

## The L\&S Minor

In the College of Letters and Science you may select from 41 minors: American studies, anthropology, applied mathematics, Asian studies, biology, business
administration, chemistry, comparative literature, computer information systems, earth science, economics, English, environmental studiés, French, geography, geology, German, gerontology, history, Latin American studies,


microcomputer systems, museum techniques, natural science, philosophy, physics, political science, psychology, public administration and policy analysis, religious studies, Russian, Russian and East Central European studies, small city analysis, social science, sociology, sociology and anthropology, Spanish, technical writing, women's studies, and writing.
Although you need not declare a minor in order to earn a degree in the College of Letters and Science, you may declare a minor either within or outside of the College of Letters and Science. To do this, in your junior year list your minor in the appropriate blank on your registration card. Ordinarily, a department will accept you for minor study. However, they may refuse to accept or continue you if your academic record does not satisfy their regulations.

## How to Prepare for Professional Study

Before entering many professional schools, you must complete part of your college work. If you wish to enter one of these schools, you may register in the College of Letters and Science. Then begin working with an adviser familiar with the requirements of the profession you plan to enter. Your adviser can help you plan your studies within either the bachelor of arts or bachelor of science program.
In the following paragraphs, you will find information on how to prepare for some professions. If you would like more specific information or suggestions, we would be happy to send them to you. Different schools training people for the same profession sometimes require different professional studies. Make sure you know the requirements of the school you plan to enter, and frequently review your progress with your adviser. Your adviser, department chair, and the staff in the office of the Dean of the College of Letters and Science will be happy to help you. But remember that it is up to you to meet all college and university requirements, rules, and regulations.
Dentistry-If you plan to enter a dental college, take the basic predental education courses specified in the admissions requirements of the school you plan to attend. Some dental schools require you to take only two years of predental education. However, most students accepted have at least a bachelor's degree. All dental schools require candidates to take the Dental Admission Testing Program exam which is given twice each year, usually in October and April. Usually you must apply for the exam one month before taking it. Consult regularly with the dentistry adviser on campus as yqu plan your undergraduate curriculum, so that you stay informed of changes in requirements and recommended courses at specific dental schools.
Education-If you have not yet determined the subjects you would like to teach, talk with your adviser or the advising office in the School of Education. If you seek a certificate to teach at the secondary school level, with a major offered in the College of Letters and Science, you may either:

1. Complete your general requirements for your B.S. degree in the College of Professional Studies, or
2. Complete your general requirements for your B.A. or B.S. degree in the College of Letters and Science.

See the Education section later in this catalog for complete information on your education requirements.
Engineering and Scientific Research-Requirements vary from one specialization to another. However, if you plan to pursue professional or graduate study in engineering and
research, you will need to concentrate on mathematics and the sciences. You will also probably need to study foreign language. Depending on your area of specialization, you may complete between one and four years of preparation for your profession at UW-Stevens Point. Your adviser will help you select courses in your bachelor of arts or bachelor of science program.
Law-Normally, you must complete a bachelor of arts or bachelor of science degree before applying to a law school. Since you will face stiff competition for admission to law school, work to maintain a high grade point average. Also work for high LSAT scores, and cultivate some strong references. Law schools do not require that you take a particular undergraduate major. However, most prelaw students take degrees in a social science or in business.
UW-Stevens Point prelaw advisers in the Department of Political Science stress a broad undergraduate program. In such a program you learn philosophical and social science approaches to problem-solving. We at UW-Stevens Point take pride in our excellent record for placing superior students in outstanding law schools.
Medicine-If you are preparing for a career in medicine, register as a candidate for either the bachelor of science or bachelor of arts degree. You may integrate your premedical course requirements with those for a degree in almost any other major field. However, most students accepted into medical schools have a major in biology, chemistry, or both. All medical schools recommend that you take calculus, humanities, and psychology.
You will face stiff competition for admission to a medical school. Schools will decide whether to admit you based on whether you have:

1. A "B +" average,
2. Above average scores on the New Medical College Admissions Test (New MCAT),
3. Relevant work experience,
4. Strong recommendations, and
5. A successful interview.

Pick up a registration form for the New MCAT from the premedical adviser. Since the New MCAT assumes you have taken college-level chemistry and physics, take this exam in April of your junior year. If you are not successful, you may take it a second time in September of your senior year. We at UW-Stevens Point are proud of our graduates' record of acceptance by medical schools.
Mortuary Science-At UW-Stevens Point you may receive the two years of preprofessional study you need to enter a mortuary school.
Other Fields-If you want to prepare for a professional field not listed here, the College of Letters and Science will assist you in finding an adviser to help you plan your program. Make sure you thoroughly understand all requirements of the school you plan to enter, and meet often with your adviser.

## The Center for the Small City

At UW-Stevens Point you may minor in small city analysis. You may also attend national conferences on the small city and regional community, sponsored by the Center for the Small City. The center, a division of the College of Letters and Science, is affiliated with the UWStevens Point Foundation. It sponsors a wide range of programs which address the policies problems and dynamics of communities of less than 50,000 people. While studying at UW-Stevens Point, you have a unique opportunity to benefit from this nationally-recognized center.

# College of Natural Resources (CNR) 

Daniel O. Trainer, Dean
Richard J. Wilke, Associate Dean
Christine L. Thomas, Senior Administrative Specialist Susan T. Coe, Administrative Specialist
Room 136, College of Natural Resources Building
Phone: (715) 346-4617 or 346-2853

## The CNR Curriculum

Please refer to the section of this catalog entitled General Degree Requirements for information on the courses to take in order to earn a bachelor of science degree. In the section of this catalog entitled The Graduate School you will find information which will be valuable to you if you wish to pursue a master of science degree in the College of Natural Resources.

## The CNR Major

In the College of Natural Resources, you may work toward bachelor of science degrees in any of six disciplines:
Forestry-In the forestry program you integrate the study of forestry with the study of other resource disciplines, so that you have a solid background for forest ecosystem management. Through your forestry degree you prepare for forest management positions with public agencies or private industry. Select one of these four options: forest management, forest administration, urban forestry, or forest recreation. The Society of American Foresters fully accredits this program.
Paper Science-In the paper science program you become well-versed in the physical and engineering sciences and learn the relationships among these disciplines. You also
prepare yourself to apply what you have learned as an industrial scientist or engineer and ultimately as a manager in the paper industry or an allied industry.
Resource Management-Within resource management you may choose from environmental education/interpretation, land use planning, youth programming and camp management, teacher certification, or general resource management options. Should you choose general resource management, please also complete an appropriate minor to enhance your employability.
Soil Science-In this curriculum you concentrate on the basic sciences in order to understand soil properties and processes so that you can wisely manage land for any purpose. When you graduate, you have met the requirements for a soil scientist established by the Soil Science Society of America.
Water Resources-In water resources you select among options in fisheries, limnology, water chemistry, watershed management, and water and wastewater treatment. Within these options, you prepare for a career with a government agency or a private firm.
Wildlife Management-In this curriculum you integrate the study of wildlife ecology and management with other resource disciplines as you prepare yourself for graduate school or a management position. When you graduate, you have met the curricular requirements for a certified wildlife biologist as established by the Wildlife Society.

## The CNR Minor

In the College of Natural Resources you may minor in
camp and youth agency administration and programming, environmental communication, environmental education/interpretation, environmental law enforcement, forest recreation, forestry, land use planning, outdoor education, resource management, soil science, water resources, or wildlife management.

## The CNR Graduate Program

If you qualify, you may work toward a master of science degree in natural resources with an emphasis in any of these areas: environmental education/interpretation, fisheries, forestry, soil science, water resources, or wildlife management. For details, see the section entitled The Graduate School later in this catalog.

## CNR Summer Camp

If you major in any CNR subject other than paper science or water and wastewater treatment, plan to attend a sixweek summer camp or the eight-week international environmental seminar after you complete your sophomore year. Through the field experience you gain at summer camp in forestry, soils, water, and wildlife, you prepare yourself for the intensive studies of your junior and senior years. If you wish to be exempt from this requirement, either because of appropriate transfer courses or alternative courses you have taken at UW-Stevens Point, seek the approval of your adviser, the CNR Appeals Committee, and the dean of the College of Natural Resources before the end of your sophomore year.


## College of Natural Resources

## The CNR Field Stations

## Central Wisconsin Environmental Station

At the environmental station you can gain valuable practical experience in environmental education and interpretation, while you earn college credit. Located 17 miles east of the UW-Stevens Point campus, the environmental station is sponsored by the University of Wisconsin-Stevens Point Foundation and the College of Natural Resources. It 'covers over 500 acres of diverse landscape, including such ecological communities as coniferous and deciduous forests, bogs, fields, ponds, and four lakes. It also has meeting rooms, dining facilities, housing, interpretive nature trails, and a complete waterfront.
For more information, call (715) 824-2428 or write the Central Wisconsin Environmental Station, 7290 Highway MM, Amherst Junction, WI 54407.

## The Fire Science Center

Located on the Little Plover River in the middle of 50 acres of native prairie and jack pine/oak woodland, the Fire Science Center offers a unique program in fire education, technology transfer, and research. You can test basic theories and fire predictions in the classroom, at the computers and burn tables, or outside on the fuel beds.

## Schmeeckle Reserve

The Schmeeckle Reserve is a 200 -acre natural area on campus where you can hike, jog, ski, or just enjoy nature on the miles of woodchipped trails and boardwalks. Many university classes are taught here. At the public visitor center you can gain experience to apply toward a major in parks and recreation, environmental education/ interpretation, or other natural resource fields. This building houses the Wisconsin Conservation Hall of Fame and features exhibits on the unique natural features of the Schmeeckle Reserve.

## Treehaven Field Station

Treehaven is a natural resource center which meets the
needs of the CNR summer camp. Here, 80 miles north of Stevens Point, near Tomahawk, you live and study in a modern facility, yet have access to over 1,000 acres of diverse habitat for natural resource education and management demonstrations. Treehaven's classroom center, dining lodge, and living centers are fully winterized and host many conferences, courses, and workshops. As an undergraduate or graduate student, you may take courses on such subjects as winter ecology and wild edibles. Treehaven is sponsored by the University of WisconsinStevens Point Foundation and the College of Natural Resources.

For more information, phone (715) 453-4106 or write the Director of Treehaven, 2540 Pickerel Creek Road, Tomahawk, WI 54487.

## Teaching in CNR Fields

If you seek a certificate to teach at the secondary school level, with a major offered in the College of Natural Resources, you may either:

1. Complete your general requirements for your B.S. degree in the College of Professional Studies, or
2. Complete your general requirements for your B.S. degree in the College of Natural Resources.

See the Education section later in this catalog for complete information on your education requirements.

## Graduation

To graduate from the College of Natural Resources, if you major in either wildlife or forestry, you must achieve a grade point average of at least 2.25 in the courses required for your major, including collateral courses and summer camp. If you major in paper science, you must achieve a grade point average of at least 2.75 . If you major in any other subject, you must achieve a grade point average of at least 2.00 ( 2.75 to student teach).


## College of Professional Studies (COPS)

Joan North, Dean<br>Room 112, College of Professional Studies Building Phone: (715) 346-3169

The College of Professional Studies consists of the School of Communicative Disorders, the School of Education, the School of Health, Physical Education, Recreation, and Athletics (HPERA), and the School of Home Economics with programs in fashion and interior design and human development and nutritional sciences.
The College of Professional Studies also administers programs in medical technology and military science (Army ROTC).
In the College of Professional Studies you:

- Prepare for your chosen profession by studying theory and then actively demonstrating your professional skills in a supervised classroom or clinic;
- Gain the knowledge and experience you need in order to meet the standards of your profession;
- Gain professional experience in internships and externships at hospitals, schools, and industrial sites;
- Associate with other students interested in providing a professional service to humankind;
- Acquire critical thinking skills so you may fully meet the needs of the people you will serve;
- Work on basic and applied research projects; and
- Work with teachers who are attuned to the people, events, trends, and politics of the professional workplace.


## Undergraduate Programs in COPS

In the College of Professional Studies you may work toward bachelor of science degrees from the:

- School of Communicative Disorders with a major in communicative disorders;
- School of Health, Physical Education, Recreation and Athletics with a major in health promotion which has options in physical education and wellness or minors in coaching, health education, recreation, safety education, or physical education for the exceptional individual, and an approved certification program in athletie training; or
- School of Home Economics with a major in home economics education, fashion merchandising, interior design, dietetics, food service management, or early childhood education, or with a minor in food service management, nutrition, or home economics.


## Graduate Programs in COPS

In the College of Professional Studies you may work toward a master's degree in:

- Communicative disorders with an emphasis in either speech and language pathology or audiology (master of science),
- Educational administration through cooperative arrangements with UW-Madison and UW-Superior,
- Guidance counseling (master of science in education) through cooperative arrangements with UW-Oshkosh,
- Elementary education (master of science in education),
- Elementary education with emphasis in reading or in special learning disabilities (master of science in education),
- Home economics education (master of science),
- Nutrition and food science (master of science),
- Secondary education (master of science in education), or
- Special education-childhood: exceptional needs (master of science in special education).
For further information on these various master's programs, see the section of this catalog entitled The Graduate School.



## The Graduate School

David J. Staszak, Dean of Graduate Studies and Coordinator of Research
Room 118, Main Building
Phone: (715) 346-2631
At UW-Stevens Point you may select among fully accredited programs leading to these 10 graduate degrees:

Master of Arts in Communication;
Master of Arts in Teaching with a specialization in
biology, English, or history;
Master of Music Education;
Master of Science in Communicative Disorders;
Master of Science in Education: (General);
Master of Science in Education-Elementary Education;
Master of Science in Education: Elementary
Education/Reading;
Master of Science in Education: Elementary
Education/Special Learning Disabilities;
Master of Science in Home Economics Education; Master of Science in Natural Resources;
Master of Science in Nutrition and Food Science; and Master of Science in Teaching with a specialization in biology, English, reading certification in English, or history.
In addition, you may take part in programs offered through UW-Stevens Point's cooperative arrangement with UW-Oshkosh which lead to the:

Master of Business Administration,
Master of Science in Education-Guidance,
Master of Science in Special Education: (Early Childhood: Exceptional Educational Needs), or Master of Science in Teaching with an emphasis in mathematics.
You may also take part in programs offered through UWStevens Point's cooperative arrangements with UW-
Superior and UW-Madison which lead to the:
Master of Science in Education-Educational Administration or
Specialist in Education-Educational Administration

## ADMISSIONS

## Who May Attend the Graduate School?

If you have earned a bachelor's degree from UW-Stevens Point or a bachelor's or advanced degree from another accredited college or university, we will admit you to our Graduate School.

## What Is Split Program Status?

If you are a second semester senior with less than a full semester's work remaining on your bachelor's degree, we may give you special permission to take one or more courses for graduate credit if you otherwise qualify for admission to the Graduate School. Work with your undergraduate adviser and your graduate program coordinator in planning the final semester's work. This way you'll be sure to meet all the requirements for your bachelor's degree. Complete the application process that follows and also complete the Split-Program Statement available in the Graduate School Office. You will then pay the undergraduate fee for both undergraduate and graduate credits you take during your last semester as an undergraduate.


For information on your rights and responsibilities as a graduate student at UW-Stevens Point and on the way that the Graduate School operates, request a copy of Graduate Student Handbook: Graduate Student/University Relationships.

## How Do I Apply for Admission to Graduate School?

## (Graduate Regular Student)

To register for graduate credit for any on-campus or offcampus course numbered 500 through 799 , you must first be admitted to Graduate School. Begin planning your graduate program as far in advance as possible. We encourage you to apply at least three months before the term for which you plan to register. Here's how to obtain graduate regular status:

1. Obtain a copy of the graduate school application from the Graduate School Office. Fill it out carefully and completely.
2. Return the completed application to the Graduate School Office along with a check or money order for $\$ 20$ made payable to UW- Stevens Point. This is a nonrefundable application fee.
3. Have any other institution you have attended mail official transcripts (covering all of your undergraduate, post-graduate, and graduate work even though the work may not be directly applicable toward your next degree) directly to: the Graduate School, Room 118, Main Building, UW-Stevens Point, Stevens Point, WI 54481
You need not furnish transcripts of any coursework you've taken at UW-Stevens Point.

Please also note that, if you are unable to begin your graduate work in the term for which you are admitted, you must contact the Graduate School Office and request that they change your entrance date. They will usually do so if you wish to enter in the following semester or summer session.
If, after you begin your program, you do not earn any graduate credits for five consecutive terms, you must apply for readmission. (A term is a semester or summer session.) You must then meet the admission standards and degree requirements in effect at the time you apply for readmission.

## How Do I Apply for Admission to a Specific Degree Program?

Once you are successfully admitted to the Graduate School you must still be admitted to your specific degree program. See the subsection dealing with your specific program for information on the requirements for admission to it If we approve your application for admission to the Graduate School, we then send it to the coordinator of the graduate program you have designated. Many of the graduate degree programs use additional application materials such as letters of reference, personal interviews, standardized test scores, verification of certification, etc. The graduate program coordinator will then determine if you are accepted into the program.

## How Do I Apply for Admission to Candidacy for the Master's Degree?

To be eligible for candidacy in the master's degree program, you must also:

1. Earn at least 9 credits of graduate work while in residence at UW-Stevens Point,
2. Remove any deficiencies and complete all subject matter prerequisites in your area of specialization,
3. Earn a " $B$ ' average in all your graduate work, and
4. Follow the procedures for admission to candidacy which have been established for your specific program, as described later in this section of the catalog.

## May I Take Courses Without Being Admitted to a Graduate Degree Program?

Yes, as either a graduate special student or a graduate guest:

## Graduate Special Student

If you have earned a bachelor's or advanced degree from an accredited college or university and wish to take graduate courses either for personal enrichment or to receive teacher certification credit, you will be given graduate special student status. As a graduate special student, you may take as many credits as you wish.

If you later decide to enter a degree program at UWStevens Point, you may use no more than 9 of the credits you earn as a graduate special student to satisfy your degree requirements. At the time you decide to enter a graduate degree program, be sure to complete the admission application process described above. The department which offers your graduate degree will then decide whether to accept credits you have earned as a graduate special student toward your degree program requirements.

## Graduate Guest

If you plan to earn a graduate degree at another institution and you wish to apply credits taken at UW-Stevens Point toward that degree, ask the graduate dean for graduate guest status. You may then take specific courses which your major adviser approves. In this way you ensure that your credits transfer properly.

## How Do I Transfer Graduate Credits I've Earned Elsewhere?

Ask your graduate committee and the graduate dean to approve the transfer of credit for graduate courses you've taken at other regionally accredited graduate schools. They may do so, with the following restrictions:

1. The course must be acceptable for graduate credit toward a graduate degree at the offering institution.
2. It must appear as a graduate course on your graduate transcript from the offering institution.
3. You may only transfer credits which apply to your proposed program.
4. You must have earned a grade of B or better in any course which you wish to transfer.
5. You may transfer no more than 9 credits from other institutions.
6. You may have earned no more than 6 of these 9 credits in extension courses.
7. You may not transfer credits which you have applied toward another degree that you've already obtained.
8. You may not transfer credits earned in correspondence courses.

## FINANCES

## What Financial Aid Am I Eligible for?

For information on financial assistance for your graduate studies, request a copy of Financial Support: Policies and Possibilities from the Graduate School Office.

We award graduate assistantships on a competitive basis. Obtain your assistantship application from your department office and submit it as early as possible. Departments usually screen applications in the spring and appoint assistants for the following fall.
To qualify for an assistantship, you must:

1. Be admitted to the Graduate School and one of our graduate degree programs,
2. Be in good standing in that program with at least a 3.0 grade point average, and
3. Either enroll for at least 3 credits each semester you are a research assistant or enroll for at least 4 graduate credits each semester you are a graduate assistant.
As a full-time graduate assistant, you work 20 hours each week for the full semester, If you are an out-of-state resident hired as a graduate assistant, you may apply to have your out-of-state fees remitted.

## How Much Do I Pay for Graduate Tuition and Fees?

Check your timetable for the fee schedule for any given term, Note the difference between resident and nonresident fees as well as between graduate and undergraduate fees. You pay according to your student classification rather than by course classification. This means that if you are a graduate student in an undergraduate course, you pay the graduate level fee.

## ACADEMICS

## How Do I Register for Graduate Courses?

See the timetable for information on how to register for courses on campus. For information on how to register for off-campus courses, contact the Director of Continuing Education and Outreach. We may limit class size or cancel a class altogether if too few students register for it.
Your department chair or graduate coordinator will help you plan your program. You may register for a maximum of 15 credits each semester and a maximum of 9 credits over the summer, but you may take no more than 6 credits in any four-week session.

If you have been dropped for academic reasons, are on academic probation, have failed to satisfy any conditions set down when you enrolled, or were admitted with special restrictions, you must obtain permission from the Graduate School Office to register.
If you have been admitted to a degree program, be sure to seek your adviser's approval before registering. If you have not been admitted to a degree program, seek the approval of the instructor or program coordinator before registering. The individual department may restrict enrollment-for example, by making certain courses available only to those who have been admitted to the department's graduate program.

## How Many Credits May I Take?

If you register for 9 or more credits in a semester or 5 or more credits in a summer session, you are a full-time student. As a full-time student you may, with the permission of your adviser, take up to 15 credits during a semester. Once you have completed all your degree requirements except for your thesis, we consider you to be a full-time student for one semester while you work on your thesis.
Your adviser may not permit you to carry a maximum load if you are a special student, a graduate assistant, or a research assistant, or if you have an "Incomplete"' in a course you took in a previous semester. If you wish to exceed the maximum course load of 15 credits, you may request written approval from your adviser and the graduate dean. They will grant permission only if you face special extenuating circumstances.

## What Are the General Degree Requirements for the Master's Degree?

To earn a master's degree from the University of Wisconsin-Stevens Point, you must:

1. Earn a mimimum of 30 credits in graduate courses,
2. Take at least one-half of the total number of credits in courses open to graduate students only (courses numbered 700 or above). However, if you work toward an MAT or MST you must also take one-half of the credits in your area of specialization in courses open to graduate students only (courses numbered 700 or above).
3. Achieve at least a " $B$ " average in all the work you take to satisfy your degree requirements. We will accept a grade of " $C$ "' in no more than 8 of the 30 credits ( 9 of the credits for certification for the MAT). All courses considered for transfer must have a grade of " B " or better.
4. Fulfill your department's, school's, and college's additional requirements for graduation, including at least one culminating experience.
5. Earn all credit toward your degree, including transfer credit, within a seven-year period. The Graduate Council grants extensions to this deadline only for unusual health conditions, fulfillment of military obligations, or other special extenuating circumstances. The seven-year period begins at the beginning of the term when you take your first degree course; it ends when you complete your final requirement.
6. Apply to your master's degree no more than 6 credits which you earn in special topics and independent study courses.
What Academic Standards Must I Meet?
To remain in good standing in a graduate program you
must maintain at least a " $B$ " average. If, as a graduate regular student, you drop below a " $B$ "' average you will be placed on probation. You then must raise your overall grade point average to a " B " or better during the next 9 credits which you take. If you don't, you are dropped from the degree program and automatically reclassified as a graduate special student.
If you receive a grade below " $C$ '" in a course, you may not use the credits you gain in that course to satisfy your graduate degree requirements. In order to repeat a course in which you receive a grade of " $D$ " or " $F$," you must complete a "Request to Repeat Course" form and have your request approved by the graduate dean. If you then repeat the course, we figure into your grade point average only the credit and grade which you earn in your second attempt. However, we still list your original grade on your student record.
In order to raise your grade point average, you may take up to 6 credits beyond the 30 credit minimum required for your degree.

## MORE ACADEMIC INFORMATION

## Admission/Retention Appeals

You may appeal a decision about your admission to a program or retention in a program by writing a letter to the graduate dean and the Graduate Council in which you ask them to reconsider the decision. See the section on Satisfactory Academic Progress later in this catalog for further information on this subject.

## The Culminating Experience

In order to receive a graduate degree, you must successfully complete one or more culminating experiences which have been determined by your college or department. Examples of such experiences include writing a thesis, seminar paper, comprehensive examiniation, or clinical paper; taking an oral comprehensive examination or an integrative course; giving a recital; or presenting an exhibition of your work.

## Graduation

At the beginning of the term in which you expect to receive your master's degree, but no later than the end of the first week of a summer session or the third week of a semester, submit an application for graduation to the Graduate School Office. Please note that if you submit such an application and then do not complete your degree requirements you must complete a new application at the beginning of the term when you do complete them.
The Graduate School Office makes a final check of your graduation standing 30 days before you are to receive your degree. By this time, be sure to complete all your degree requirements except for those courses in which you are currently enrolled. If you do not do so (e.g., if you have not completed all courses except current courses, do not have official transcripts on file for all transfer courses, or if you have not had your thesis or other culminating experience approved) you will have to reapply to graduate at a later time.
In order to graduate, you must earn the prescribed number of credits and maintain the grade point specified for your degree, complete all other requirements of your curriculum, and be recommended for the degree by the graduate faculty of your department.

If you are planning to graduate but not participate in the commencement ceremonies, the graduation deadlines are different from the above. Please refer to your graduation application for more information.
At your request, the Graduate School Office will provide a statement certifying that you have completed your degree requirements.

## Incompletes

You must remove a grade of "Incomplete" before the end of the next semester or summer session in which you are registered. If you don't, the "Incomplete"' automatically becomes an "F.' Culminating experience courses are an exception to this rule.

## Pass/Fail

We do not accept toward your graduate degree program any credits you earn in pass/fail courses.

## Records

You have the right to inspect your student files in the Graduate School Office, Room 118, Main Building, in accordance with the Family Rights \& Privacy Act of 1974.
You may also inspect letters of reference submitted as part
of your degree program application, if:

1. You have been admitted to the degree program for which the letters were submitted,
2. You have attended graduate courses in this program, and
3. The file does not contain your written waiver of the right to see reference letters.
However, you may not use the letters of reference submitted as part of your application to the degree program for any other purpose.
Please note that the Family Rights \& Privacy Act of 1974 restricts the Graduate School from giving copies of your official transcripts from other schools to you or to any office other than your academic department. Request all copies of your transcripts directly from the schools which you attended.

## The Thesis

In certain degree programs you are asked to write a thesis. Discuss your thesis topic with the graduate faculty member designated as your adviser. Then submit a written proposal to your adviser in which you briefly describe what you plan to do and how you plan to do it. You and your adviser select other graduate faculty members to serve on your thesis committee along with the graduate dean who is an ex officio member. The thesis adviser will chair the committee. The thesis committee reviews your proposal, determines how many credits (up to 6) you earn for writing your thesis, and approves or rejects your proposal.
In writing your thesis use the UW-Stevens Point Thesis Guide available from the Graduate School Office, as well as whatever style manual your department prefers. Be sure to meet the standards presented in these works.
As a degree candidate, you defend your thesis in an open, public, oral examination at least 30 days before you expect to graduate. The members of your thesis committee conduct that examination.
You must file a copy of your thesis in the UW-Stevens Point Library at least 10 days before your graduate.

## GRADUATE PROGRAMS <br> BIOLOGY

Virgil A. Thiesfeld, Graduate Coordinator<br>Room 110, College of Natural Resources Building Phone (715) 346-2159

In the Biology Department you may choose between Master of Arts in Teaching (M.A.T.) and Master of Science in Teaching (M.S.T.) degrees. Both programs are designed for teachers and include some work in education. If you are interested in a Master of Science (M.S.) degree, examine the Master of Science in Natural Resources. Several biologists have joint appointments in the College of Natural Resources and serve as major advisers for that degree.
To determine your specialization within a degree, meet with your graduate committee. If you are admitted without deficiencies, you have great flexibility in designing your program. In the MST, you may take credits in the liberal arts category (in addition to biology) in chemistry, geology, and physics.
As a secondary school teacher, you will find in the MAT and MST programs the opportunity for advanced study, experimentation, research, and involvement in various professional activities.

## Admission to the Program

A three-member admissions committee reviews your application to determine if you have completed the equivalent of UW-Stevens Point's undergraduate major with collateral requirements in chemistry and mathematics. If you are missing required courses, they list these as deficiencies, and you complete these at the undergraduate level.
In order for you to be admitted, your overall grade point average (GPA) in your major, including collateral courses, should be 3.00 ("B") or higher. If it is below this level, the committee reviews your overall GPA. If this is below 3.00, they usually suggest that you enroll as a graduate special student to demonstrate your ability to perform graduate level work. You are accepted into a thesis plan only when a faculty member agrees to serve as your thesis adviser.

## The Culminating Experience

Nonthesis Option: Under this option you complete a research paper which grows out of your participation in Biology 790, The Graduate Seminar. You also take a final oral or written comprehensive examination administered by your graduate committee. This is based primarily on the courses you have taken in the degree program but also may review your knowledge of concepts and your problemsolving skills.
Thesis Option: Under this option your thesis committee reviews your thesis research proposal and evaluates the final product. You also take a final oral examination. This is based primarily on the thesis but also may include questions on coursework you've taken and your knowledge of concepts.

## COMMUNICATION

William C. Davidson, Graduate Coordinator<br>Room 208, Communication Arts Center<br>Phone: (715) 346-2237<br>In the Communication Division you may work toward the

Master of Arts (M.A.) in Communication degree. In doing so, you will take a approach to the study of human communication as well as specialize in an area of professional interest. Working with your advisory committee, you define a plan of study best suited to your career aspirations.
Although a full-time student can complete this program in two years, many plan a two- to five-year part-time program. You must a earn a minimum of 30 graduate credits, but most students finish with more than 30 credits.

## Admission to the Program

Once admitted by the Graduate School, you are admitted to the graduate program in communication on a probationary basis. During the semester in which you complete your first 6 graduate credits, and before the first class day of the following semester, the Graduate Program Committee reviews the status of your candidacy.

## Admission to Candidacy

You provide supporting materials (papers, exams, recommendations, etc.) based on your first 6 credits of work. The Graduate Program Committee reviews these materials, to decide your continuing status:

1. MA Candidate: They grant you clearance to establish an Advisory Committee and obtain approval of your program of study.
2. Conditional Candidate: They recommend steps you should take, and then they re-evaluate your status once you have completed their, recommendations.
3. Special Student: You are eligible to take courses but may not continue in the graduate degree program. You may appeal this status by writing to the Graduate Coordinator and Graduate Program Committee.

## Program Planning

With the help of the graduate coordinator, you select an adviser and two additional members of your Advisory Committee. They then approve your plan of study. After you have completed at least 12 credits, the Advisory Committee approves your selection of a thesis topic, rationale, and dominant method.
By the time you have completed 24 credits, submit your thesis/project proposal to your Advisory Committee. Either you or your adviser may request that the Advisory Committee be reconstituted to direct your thesis.
When the Advisory Committee approves your thesis/project proposal, you must enroll in one or more hours of thesis/project each semester in order to maintain your status as an MA candidate. We count no more than 6 credits of thesis toward your 30 credit degree requirement.

## The Culminating Experience

You must conduct an oral defense of your thesis/project no later than 11 days before your commencement. Deliver a copy of your thesis to each member of your committee and to the division office at least two weeks before your oral defense. Submit two bound copies to the graduate coordinator at least 10 days before your commencement.

## COMMUNICATIVE DISORDERS

Donald L. Aylesworth, Coordinator of Academic Programs Room 034, College of Professional Studies Building Phone: (715) 346-3667
In the School of Communicative Disorders you may work toward the Master of Science (M.S.) degree with either of two specialization options: speech-language pathology or
audiology. In each specialization you receive the academic background and clinical practicum you need to function competently and independently in a variety of professional employment settings.
The School of Communicative Disorders at UW-Stevens Point was among the first in the country to be accredited by the Education and Training Board of the American Speech-Language-Hearing Association. The program provides a quality education which emphasizes training in the prevention, evaluation, and treatment of disorders of hearing, speech, and language. Our graduates are located from coast to coast and in foreign countries as well in schools, universities, hospitals, and public and private clinics.
In the program, you receive clinical training beginning at the undergraduate level and culminating in a clinical semester at the end of your graduate program. In consultation with your adviser and the Director of Clinical Services, you select a site (school, clinic, hospital, etc.) for a 15 -week, concentrated, supervised practicum. Sites in audiology and speech and language are available throughout the country.

## Admission to the Program

For either of the two specialization options, you must have completed specific courses and practicum experiences at the undergraduate level. The coordinator of academic programs determines whether you have any deficiencies in this area. If you do, you must eliminate them as soon as you enroll in the graduate program. For a detailed list of the course content and practicum experiences required at the undergraduate level, ask the School of Communicative Disorders for a copy of the Graduate Handbook: SpeechLanguage Pathology and Audiology.

## Admission to Candidacy

In audiology, you must successfully complete a written examination after you have completed 20 credits of graduate work. In speech-language pathology, you must complete at least 9 credits of graduate work with a GPA of 3.00 ('B") and not more than one grade of "B-."

## Specializations

In either area of specialization you must meet the minimum standards for clinical certification as established by the American Speech-Language-Hearing Association which are in effect at the time when you graduate.
As a student in audiology; you must complete qualifying comprehensive examinations. After successfully completing a minimum of 20 credits, you are eligible to take a written qualifying examination. Then, when you complete all your coursework and your practicum, but before you begin your clinical semester, you take an oral comprehensive examination which indicates whether you have synthesized the academic work you've taken. The oral comprehensive committee consists of two members of the audiology staff and one other member of the School of Communicative Disorders or a "university associate."

## The Culminating Experience

In either area of specialization, you must fulfill a clinical semester ( 15 credits) after you have completed the appropriate coursework and clinical practicum. In the clinical semester, you are assigned full-time for one academic term to a hospital, clinic, school, etc. in order to gain professional experience in the type of facility which most interests you.

## EDUCATION

## Graduate Coordinator

Room 440, College of Professional Studies Building Phone: (715) 346-2040
In the School of Education you may choose among a general Master of Science in Education (M.S.E.) program and specialized M.S.E. programs in elementary education, elementary education with a specialization in reading, or elementary education with a specialization in special learning disabilities.
In addition, you may select from two graduate programs which we offer in cooperation with UW-Oshkosh. the Master of Science in Education in Guidance and the Master of Science in Special Education-Early Childhood: Exceptional Educational Needs. You may also work toward either the Master of Science in Education. Educational Administration or the Specialist in Education: Educational Administration in programs which we offer in cooperation with UW-Madison and UW-Superior.
For information on the Master of Arts in Teaching and the Master of Science in Teaching see the Graduate School sections dealing with biology, English, and history, the three departments which offer these degrees.

## Admission to the Program

To be admitted to the Master of Science in Education program, you must have a license to teach.

## Admission to Candidacy

To be accepted as a candidate in the master's degree program:

1. Earn 9 credits of graduate work in residence at UWStevens Point,
2. Remove any deficiences and complete all subject matter work in your areas of specialization, and
3. Earn a "B" average in all your graduate work.

## SPECIFIC DEGREES

## Master of Science in Education (General)

To be admitted to the program:

1. Give the School of Education Advising Center a copy of your teaching license.
2. Have an employer write a letter certifying that you have two or more years of teaching experience.
3. Have a supervisor or principal provide a letter of reference for you.
We will admit you to the program if you have earned an undergraduate cumulative GPA of 3.0 ("B'), have taught for two or more years, and have been certified in elementary education, secondary education, or early childhood education. If your undergraduate GPA is below 3.0 you will be given probationary status; you must then earn a 3.3 GPA in your first 9 resident graduate credits at UW-Stevens Point.

## Admission to Candidacy

You are admitted to candidacy after you:

1. Earn a 3.0 GPA in your graduate coursework.
2. Submit a copy of your proposed plan of study on the "Program of Study" form available at the School of Education Office.
3. Write an explanation of how your sequence of courses enhances your professional expertise. Group your credits into categories (e.g., curriculum, mathematics, reading, etc.) and provide a rationale for each category.

## The Program

1. Earn 9 credits, one 3 -credit course from each of these three components:
a. Foundations component: Education 701, 702, 703.
b. Curriculum component: Education 721, 722.
c. Research component: Education 707, 782, 799.
2. Earn 21 credits in your area of subject content or specialization, including one of these three options:
a. Professional and subject matter content ( 6 credits in liberal arts coursework).
b. Specialization or certification ( 18 credits leading to a state certificate or credits in a specialty area).
c. Liberal arts content.

## The Culminating Experience

Complete a written comprehensive examination covering foundations, curriculum, and subject
content/specialization.

## Master of Science in Education

Programs in elementary education, elementary education with a specialization in reading, and elementary education with a specialization in special learning disabilities.

## Admission to the Program

To be admitted to a Master of Science in Education program, you must have a license to teach.

## The Program

Earn 30 credits in graduate courses:

1. Professional education - 6 to 9 credits;
2. Liberal arts - 6 to 9 credits outside your area of specialization,
3. Area of specialization - earn the remaining credits as follows:
a. Elementary education -9 credits: at least 3 credits from Education 731, 732, 733, 734, 741; the remainder from the preceding group plus 706,751, 756, 758.
b. Elementary education with reading specialization -12 credits in Education 741, 746, 747, 748; this provides " 316 " certification (reading teacher); and 3 to 6 credits of additional electives in education courses; OR
Education 749 and 750 , providing ' 317 ' certification (Reading Specialist). You may also obtain this through several degree and nondegree programs.
c. Elementary education with special learning disabilities specialization - Education $551,553,563,564,780$, eight credits of 781; Psychology 560 and Communicative Disorders 566 or 736 . For " 811 " certification for learning disabilities, you need a bachelor's degree in elementary education, including Education 326.
OR
If you have a bachelor's degree in special education, including Education $304,308,326,383$, and 8 credits of 398; Mathematics 229; Mathematics Education 229, and Psychology 260, then take these courses for " 811 " certification: Communicative Disorders 736; Education $533,551,563,564,780$, and 8 credits of 781; Psychology 560.

## The Culminating Experience <br> Complete either of these two plans:

Thesis Option: Write a thesis and a comprehensive examination covering the liberal arts area of your program, or

Nonthesis Option: Take Education 707, in which you write a seminar paper, and also write a comprehensive examination. The exam includes one question about foundations, one about liberal arts, and three about your area of specialization.

## Master of Science in Education: Guidance

UW-Stevens Point cooperates with UW-Oshkosh in their degree program leading to guidance certification. To enter the program, you must meet the admission criteria of the UW-Oshkosh Graduate School and the Counselor Education Program. For full information on this program, contact the School of Education Office.

## Master of Science in Special Education-Early Childhood (Exceptional Educational Needs)

Darvin Miller is the graduate program coordinator. In this program you prepare to work directly with young handicapped children and with their parents and others who have primary responsibility for their care. You prepare for work in public school programs, Head Start programs involving 10 percent handicapped populations, achievement centers for the handicapped, and private nursery school programs serving handicapped children.
If you have completed your bachelor's degree in early childhood education, special education, or a related field, and if you have already had successful experience in working with young children, we designed this program with you in mind. We offer this program, which leads to EC:EEN certification, in cooperation with UW- Oshkosh. Both campuses share a competency-oriented curriculum, so you may take courses on either campus.

## Admission to the Program

We select applicants on the basis of the number of persons that we can accommodate in the program each year and on the basis of their qualifications:

1. Completion of a bachelor's degree in a related professional curriculum.
2. Grade point average.
3. Successful experience in working with young children.

To apply, submit your application for admission to the Graduate School along with your transcripts and the names of references who can rate your work experience with young children. Also, interview with the graduate program coordinator and develop a program plan.

## The Program

Successfully complete these prerequisite courses: Communicative Disorders 266, Education 301, 308, 381; Physical Education 280; and Psychology 260, 360. As a prerequisite, also work successfully with young children for one academic year and have experience with children of various ages who have exceptional educational needs.
Then take 36 credits in graduate courses distributed as follows:

1. Foundation courses, 6 credits: Education 705 or 706 ; Psychology 660.
2. General studies: exceptional education, 6 credits: Communicative Disorders 736, Physical Education 775.
3. Area of specialization, 21 credits: Education 775, 776, 777, 778, 779, 782; 3 credits of electives.

## The Culminating Experience

Demonstrate successful performance of the EC:EEN program competencies and skills in Education 779 and 781 and successfully complete a written and oral comprehensive examination.

## Graduate Certification Programs in Exceptional Education

Here are the requirements you must meet for each of the graduate certification programs.

## Early Childhood: Exceptional Educational Needs

(M.S.E. at UW-Stevens Point or M.S.S.E at UW-Stevens Point in cooperation with UW-Oshkosh) Note that, while the requirements for these two degree differ; the certification requirements are identical. To receive certification, fulfill these requirements:

1. Professional Preparation: Complete a bachelor's degree in early childhood education, special education, or related field (i.e., elementary education or communicative disorders), including these required courses: Education 301, 308, 381, and 398; and Psychology 260 or Human Development 261.
2. General Exceptional Education: Successfully complete Communicative Disorders 736 and Education 551; and
3. Area of Specialization: Successfully complete Education 775, 776, 777, 778, 779, and 4 credits of Education 781 (Practicum in Teaching Exceptional Children: Exceptional Educational Needs).

## Emotionally Disturbed

(Master of Science in Education: General) To receive certification, fulfill these requirements:

1. Professional Preparation:
a. Complete a bachelor's degree in elementary or secondary education, including these required courses: Communicative Disorders 266; Education 308 or 386; Education 326, 381, 383, and 398; methods courses for instructional areas; and Psychology 260,
b. If you are certified in other areas of special education, complete these professional education courses: Communicative Disorders 266; Education 308 or 386; Education 326, 381, 383, and either 398 or a practicum with non-exceptional children in a regular classroom; methods courses in your regular curriculum; Psychology 260; or equivalent courses at the graduate level.
2. General Exceptional Education: Successfully complete Communicative Disorders 567; Education 551, 556, 568, 704 , and 778; and
3. Area of Specialization: Successfully complete these courses, with an emphasis in emotional disturbance: Education 553, 563, 780, and 781; and Psychology 560.
Note: If you register for Education 553, Education 563, or Education 780 for the first time and for only one teaching category, register for 3 credits. If you register for Education 781 for only one teaching category, enroll for 8 credits.

## Exceptional Education-Special Fields.

(Physical Education) To receive certification, successfully complete these courses: Physical Education 551; 3 credits in adapted physical education, including a practicum; and one of the following courses: Education 553, 554, 563, 564,565 , or 567.

## Learning Disabilities

To receive certification, fulfill these requirements:

1. Professional Education:
a. Complete your undergraduate degree in elementary or secondary education, including these required courses: Comm. Dis. 266; Education 308 or 386; Education 326, 381, 383, and 398; methods courses for your instructional areas, and Psychology 260;
b. If you are certified in other areas of special education, complete the following professional education courses: Communicative Disorders 266; Education 308 or 386, Education 326, 381, 383, and either 398 or a practicum with nonexceptional children in a regular classroom; methods courses in regular curriculum; or equivalent graduate courses.
2. General Exceptional Education: Successfully complete Communicative Disorders 567, Education 551, 556, 568, 704 , and 778; and
3. Areas of Specialization: Successfully complete these courses, with emphasis in learning disabilities: Education 553 ( 2 to 3 credits), Education 563 ( 2 to 3 credits), Education 780 ( 2 to 3 credits), and Education 781 ( 5 to 8 credits).
Note: If you register for Education 553, 563, or 780 for the first time and for only one teaching category, register for 3 credits. If you register for Education 781 for only one teaching category, enroll for 8 credits.

## Mild-Moderate Mental Retardation

To receive certification, fulfill these requirements:

1. Professional Education:
a. Complete your undergraduate degree in elementary or secondary education, including these required courses. Comm. Dis. 266, Education 308 or 386; Ed $326,381,383$, and 398; methods courses for your instructional areas; and Psychology 260.
b. If you are certified in other areas of special education, complete the following professional education courses: Communicative Disorders 266; Education 308 or 386, Education 326, 381, 383, and 398 or practicum with nonexceptional children in a regular classroom; methods courses in regular curriculum; Psychology 260 , or equivalent graduate courses;
2. General Exceptional Education: Successfully complete Communicative Disorders 567, Education 551, 556, 568 , 704 , and 778 ; and
3. Areas of Specialization: Successfully complete these courses, with emphasis in mild-moderate mental retardation: Education 553 ( 2 to 3 credits), Education 563 ( 2 to 3 credits), Education 780 ( 2 to 3 credits), and Education 781 ( 5 to 8 credits).
Note: If you register for Education 553, 563 , or 780 for the first time and for only one teaching category, register for 3 credits. If you register for Education 781 for only one teaching category, enroll for 8 credits.

## Multicategorical Special Education Teacher Preparation

To receive certification, fulfill these requirements:

1. Professional Education: Complete your undergraduate degree in elementary or secondary education, including these required courses: Communicative Disorders 266, Education 308 or Education 386; Education 326, 381, 383 and 398; methods courses for instructional areas; and Psychology 260 . If you are certified in other areas of special education, successfully complete the following professional education courses: Education 308 or Education 386; Education 326, 381, 383, and either Education 398 or a practicum with nonexceptional children in a regular class; methods courses in regular curriculum; and Psychology 260; or equivalent graduate courses.
2. General Exceptional Education: Take 17 credits: Communicative Disorders $551,556,567,568,704$, and 778; and
3. Areas of Specialization: Successfully complete Education 553 (3-7 credits), 563 ( 3.7 credits), 780 ( $3-7$ credits), and three sections of 781 (5-8 credits each) with an emphasis in learning disabilities, emotional disturbance, and mildmoderate retardation); Psychology 560.
Also arrange to student teach in each disability area for which you seek certification. If you only want one certificate, student teach full time for at least eight weeks. If you want all three certificates, student teach for at least one semester, and spend at least eight weeks in a separate emotional disturbance placement. To obtain K-12 certification, arrange for placement in both elementary and secondary schools.

## Master of Science in Education: Educational Administration or Specialist in Education: Educational Administration

We offer these programs in cooperation with UW-Madison and UW-Superior, For full information on them contact the School of Education Office.

## ENGLISH

Stephen Odden, Graduate Coordinator
Room 486, Collins Classroom Center Phone: (715) 346-4757
In the English Department you may work toward the Master of Arts in Teaching: English; the Master of Science in Teaching. English; or the Master of Science in Teaching. Reading Certification in English. If you seek to teach English or reading, you can gain advanced knowledge and training through these programs.

## Admission

To be accepted into either the M.A.T. or M.S.T. program you must have a bachelor's degree with an English major. If you have less than this, the graduate coordinator may grant you provisional acceptance. If you have less than a 32 credit undergraduate major in English (exclusive of freshman English) and you wish to earn the M.S.T., select the 18 credit option in English courses.

## Admission to Candidacy

To be admitted to candidacy, successfully complete nine graduate credits with at least a "B'" (3.0) average.

## The Program

Take at least half of your English credits at the 700 level.

1. Master of Arts in Teaching-English
a. Successfully complete 21 credits in English courses approved by the graduate coordinator.
b. Successfully complete 9 credits in education courses: Education 702, 760, and 3 credits from Education. 583, 701, 721, 751.
c. Successfully complete 14 credits in the professional sequence: Education 763, 764, 765.
2. Master of Science in Teaching-English
a. Successfully complete 21 to 24 credits in English courses selected with the approval of the graduate coordinator.
b. Successfully complete 6 to 9 credits in education courses.
c. With the approval of the graduate coordinator, you may substitute 3 graduate credits in another liberal arts area for 3 credits in English.
3. Master of Science in Teaching-Reading Certification in English
a. Successfully complete 15 to 18 credits in reading courses (up to 6 of them at the undergraduate level) including: Education 746, 747, 748; other courses approved by the graduate coordinator to total 15-18 credits.
b. Successfully complete 18 to 21 credits selected with the approval of the graduate coordinator.

## Culminating Experience

You may complete an English 795 project in conjunction with your attendance in English 712, write a thesis (2 to 6 credits), develop a portfolio ( 2 to 4 credits), or take a comprehensive examination.

## HISTORY

Russell S. Nelson, Graduate Coordinator
Room 406, College of Professional Studies Building Phone: (715) 346-4485
You may earn a Master of Science in Teaching or Master of Arts in Teaching in history or in history with a concentration in the social sciences. You may also earn a Master of Science in Education (General) degree with a history concentration. In these programs you study specific historical periods or topics, acquire new information, learn the latest interpretations, and evaluate the latest methods of teaching the subject.

## Admission

The Department of History will admit you into its program if you:

1. Are accepted into Graduate School,
2. Have an undergraduate major in history or social sciences,
3. Earned a 2.75 cumulative GPA in your undergraduate work, and
4. Earned a 3.00 GPA in your undergraduate major.

If you don't meet all these criteria you may appeal to the History Department Graduate Committee for acceptance on probation.
Then complete a program of study form in consultation with your adviser, during the first semester you are in the graduate program.

## Admission to Candidacy .

After you have completed 12 to 15 credits of graduate work, have an evaluation meeting with your adviser. At that meeting, discuss your program, progress, and potential for success in completing your degree.

## The Program

In consultation with your adviser, plan a program that best meets your professional needs. If you wish, you may specialize in a specific field of history.

1. The M.A.T./M.S.T. in History. To earn your degree: a. Achieve a 3.25 GPA in your graduate courses.
2. The M.A.T./M.S.T. in History with a Social Science Concentration. To earn your degree, successfully complete 24 credits:
a. Earn 12 credits in history, at least 6 of them in courses numbered 700 and above and with at least a 3.25 GPA .
b. Earn 12 credits in one or more of the social sciences which you and your adviser mutually agree upon.
3. The M.S.E. (General) with a history concentration. For full information on this degree, see The Graduate School section on Education. As part of the 21 credits towards this degree in your area of subject content or specialization, you may take history credits under the professional option. Under the liberal arts option, you may take up to 21 credits in history.
After consulting with your education and history advisers; you determine your program of study in your area of specialization. Earn one-half of the credits in history courses numbered 700 and above. Also maintain at least a 3.25 GPA in history courses. If you wish to make exceptions to these history requirements, the History Department Graduate Committee, the History Department chair, and the graduate dean must approve those exceptions.

## Culminating Experience

You may either write a master's thesis, for a maximum of 6 credits, or submit a research paper done for the Education Seminar.
The Thesis Option. If you choose to write the thesis, decide upon a topic in consultation with your adviser and then inform the graduate coordinator. After you submit the completed thesis, take an oral examination on it conducted by your thesis adviser and two other members of your department chosen by your adviser in consultation with you.
For you to pass this exam, your adviser and one other member of your committee must vote to approve both your thesis and your responses. You must then take a written comprehensive examination consisting of a question in education. For further information on the thesis, contact the History Department Office.

Research Paper Option. If you choose to submit a research paper, you must also take a written comprehensive examination in history and education. If your degree is in history, you must display a thorough factual and bibliographical knowledge of at least one area of history. If your degree is in history with a social science concentration, you must display the same knowledge of one area of history and one social science.

## Resources

In the Government Publications division of the Learning Resources Center you will find a rich collection of public documents on international and national as well as state and local topics. As an Area Research Center, the LRC collects U.S. government publications and Wisconsin government publications. It also has a growing collection of public documents and private papers. With these materials, you may research such areas as 20 th century diplomatic and military history, English history, 18th and 19th century United States history, and American Indian history.

## HOME ECONOMICS

Grace Hendel, Graduate Coordinator
Room 101, College of Professional Studies Building Phone: (715) 346-2830
You may earn the Master of Science in Home Economics Education or the Master of Science in Nutrition and Food Science.

In your work toward the Master of Science in Home Economics Education, you may emphasize such fields as apparel, textiles and merchandising; child development and family relations; food, nutrition, and food service management; consumer resource management; housing and interior design, or home economics education. You develop your program in accordance with your personal needs and career goals. In the program, you may develop your research competency and professional proficiency, strengthen your background for secondary level teaching, or prepare to teach in post-secondary institutions or for public services.
The Master of Science in Nutrition and Food Science encompasses nutrition, food science, and food service administration. You design your program to emphasize your area of interest. In the program, you develop your research competence and increase your professional proficiency. When you complete the degree and an undergraduate Plan IV curriculum, you are eligible for a six-month work experience to meet requirements for American Dietetic Association membership.

## Admission

Home Economics Education: You need neither have a degree in home economics nor be certified to teach at the secondary level in order to enter this program.
Nutrition and Food Science: You need not have an undergraduate major in one of the nutrition and food science areas in order to enter this program. However, you may have to take courses to remove deficiencies in your undergraduate curriculum.
In both programs, you must remove any deficiencies before applying for candidacy. The graduate faculty in your program area decide whether you may enter the program. If you have a cumulative undergraduate GPA less than 2.75 , you may be admitted on probation for one semester. During that semester, you may take no more than 9 graduate credits and must earn a 3.0 GPA .

## Admission to Candidacy

After you complete 9 credits of graduate work at UWStevens Point with a 3.00 GPA, you may apply for admission to candidacy. If your GPA is lower than 3.00 , you will be placed on probation. If you then earn a 3.00 GPA on your next 9 credits, you will be admitted to candidacy. If you fail to maintain a cumulative GPA of 3.00, you will be dismissed from the program.

## The Program

1. Master of Science in Home Economics Education Earn 30 credits at the graduate level, 15 of them at the 700 level. Then either write a research thesis or conduct an independent study and write an in-depth report detailing your findings:
a. Thesis Option:
1) Earn 8 to 12 credits in Human Development 798 , 799, Education 706.
2) Earn 8 to 10 credits in home economics education.
3) Earn 8 to 15 credits in human development, food and nutrition, food service management, and related fields.
b. Nonthesis Option:
4) Complete Human Development 796, 798; Education 583 or 706.
5) Earn 8 to 10 credits in home economics education.
6) Earn 8 to 15 credits in human development, food and nutrition, food service management, and related fields.

In either option, select at least 8 credits from the first five of these categories and the rest from any of these categories:
a. Apparel, textiles, and merchandising;
b. Child development and family relationships;
c. Food, nutrition, and food service management;
d. Consumer education and management;
e. Housing and interior design;
f. Education;
g. An option developed from interrelated disciplines, as approved by your adviser and the graduate coordinator.
You may take workshops, special topics courses, and independent study courses in all of these areas. However, you may apply to your degree no more than 6 credits you earn in such courses.
2. Master of Science in Nutrition and Food Science: Earn 30 credits at the graduate level, 15 of them at the 700 level.
a. Thesis Option:

Under this option, you take a seminar course and write a seminar paper.

1) Earn 8 to 12 credits in Food and Nutrition 749 , 798, 799.
2) Earn 9 to 12 credits in food, nutrition, and food service management courses.*
3) Earn 6 to 13 credits in related areas.
b. Nonthesis Option:

Under this option you take a seminar course and write an in-depth seminar paper with recommendations.

1. Earn 6 credits in Food and Nutrition 749 and 798.
2. Earn 9 to 15 credits in food, nutrition, and food service management courses.*
3. Earn 9 to 15 credits in related areas.

* Courses include: Food and Nutrition 591, 644, $645,646,650,655,656,657,658,690,748,753$, 754, 755, 794, 796; Food Service Management 543, 547, 648, 649, 651, 690; Human Development 701, 702 .
You may take workshops, special topics courses, and independent study courses in all of these areas. However, you may apply to your degree no more than 6 credits you earn in such courses.
In both programs you have an opportunity for graduate teaching and research assistantships as well as for in-depth clinical/community practitioner experiences.


## Culminating Experience

In addition to those described in the previous section, you must complete the following requirements:
In home economics education, take a written comprehensive examination after you complete 18 graduate credits and also participate in an oral defense of your thesis or paper.
In nutrition and food science, successfully complete the thesis or in-depth seminar paper and take a final comprehensive oral examination.

## MUSIC

Leon R. Smith, Graduate Coordinator
Room C-102, College of Fine Arts Center
Phone: (715) 346-3852
In the Music Department you may work toward the Master of Music Education with an emphasis in instrumental, vocal/choral, Suzuki Talent Education, jazz education, or studio pedagogy emphasis. In this program, you prepare for a full range of classroom, performance, and administrative responsibilities as a member of the music teaching discipline. You improve your competency in music philosophy, methodology, literature, and applied musical experiences while learning of the most recent trends and innovations in music education.
You may conduct and perform in a wide variety of vocal and instrumental ensembles. Through seminars and methods courses you gain a firm philosophical/technical career base. In the Suzuki Talent Education curriculum, you participate in the renowned Institute which brings several thousand students and teachers to the UW-Stevens Point campus each year.
Our regional computer network and instructional media center are valuable aids to both your research and your program development. The Center for Studies in Electronic Music Education provides facilities for combining computers, synthesizers, and the audiovisual media with classroom music activities.

## Admission

To be considered for admission:

1. Submit a transcript of any undergraduate or graduate work you have taken at other institutions.
2. Have your past administrators, teaching colleagues, or college teachers in your major area send two letters of recommendation on your behalf.
3. If you wish to have an emphasis in instrumental, vocal/choral, or jazz, you must have state teacher certification. If your emphasis is Suzuki, certification is recommended but optional. If your emphasis is pedagogy, certification is optional.
4. Meet these requirements for certain emphases:
a. Instrumental, vocal/choral, jazz: earn an undergraduate degree in music education.
b. Suzuki Talent Education: earn an undergraduate degree in music education with teacher certification and a Suzuki- related performance area; OR gain admission by faculty evaluation, based on your performance area, music courses taken toward a related undergraduate degree, and significant involvement in Suzuki teaching. You may be required to take additional courses.
c. Studio Pedagogy:
1) Earn an undergraduate degree in applied music or music education (teacher certification optional);
2) Gain the approval of faculty in your major area of performance; or
3) Gain admission by faculty evaluation, based on performance area, music courses taken toward a related undergraduate degree, and significant involvement in studio teaching and performance. You may be required to take additional courses.

## Admission to Candidacy

To be admitted to candidacy:

1. Complete 9 credits with a grade of " $B$ " or better.
2. Before you complete 15 credits, adopt a program of study, including projected courses, the topic of your culminating experience, and the selection of a graduate committee and project adviser, who is also chair of your committee.

## The Program

To earn your degree, earn at least 30 graduate credits:

1. Major applied music, 4 credits.
2. Music theory and applied creativity, 6 credits.
3. Music history/literature, 6 credits. (If you qualify, you may take Music 712, one other elective theory course, and 6 credits in music history/literature. If you have deficiencies, you will be counseled about what courses to take.)
4. Music education:
a. Instrumental, vocal/choral, jazz, Suzuki, 6 credits: Music Education 786 and 787 (or 788, Suzuki; or 790, Jazz).
b. Studio pedagogy, 5 credits: Music Education 789 and Music 691-696.
5. Thesis option, 0 to 4 credits.
6. Electives, 4 to 9 credits. (See below.)

## Culminating Experience

Option 1: Thesis, 4 credits; electives, 4 credits (studio pedagogy, 5 credits).
Option 2: Performance, methods and materials, 2 credits; electives, 6 credits (studio pedagogy, 7 credits).
Option 3: Seminar paper, 0 credit; electives, 8 credits (studio pedagogy, 9 credits); and comprehensive final examination.
No matter which option you choose, make an oral defense, demonstration or other presentation appropriate to the option before your committee. Select one of the three options in cooperation with the graduate coordinator and your project adviser. The options may include a wide variety of activities in research, performance, and teaching methodology.

## NATURAL RESOURCES

Rick Wilke, Graduate Coordinator
Room 107, College of Natural Resources Building Phone: (715) 346-2853
In the College of Natural Resources you may earn the Master of Science in Natural Resources, which encompasses environmental education/interpretation, fisheries, forestry, soil science, water resources, wildlife management, forest recreation, urban forestry, resource policy and planning, and youth programming.
In the graduate program you have an opportunity for advanced study, research, and involvement in natural resource related professional activities. We have designed all our programs to meet your individual needs and interests.

## Admission

In addition to requesting admission to the Graduate School, complete a separate application for the College of Natural Resources. Also have two letters of recommendation sent on your behalf. We recommend that you take the verbal and quantitative portions of the Graduate Record Examination. Please have the results sent to the graduate program coordinator of the College of Natural Resources.

An undergraduate major in one of the natural resource specialties is not required. However, you may have to take additional courses to make up deficiencies in your undergraduate curriculum. If you have an undergraduate major in social sciences or humanities, you have more deficiencies than someone with a major in the sciences.

The graduate faculty in your area of interest determines whether to admit you to the program. You must have earned at least a 3.0 grade point average in the last two years of your undergraduate program. The associate dean can make exceptions upon recommendation of the college's graduate committee.

## The Program

1. You must earn at least 30 credits in graduate courses.
2. You may earn no more than 12 credits in any one discipline, except natural resources (e.g., Natural Resources 674,790 ) toward your degree.
3. You must take courses in at least three disciplines (e.g., forestry, wildlife, and biology).
4. Your graduate committee must consist of at least three members of the graduate faculty who represent at least two disciplines.
5. You must enroll for at least three thesis or independent study credits during each of your first four semesters.
6. a. Thesis Option (recommended for most students)
1) Thesis: maximum of 6 credits count toward your 30 credit requirement; and
2) Seminar: maximum of 2 credits in Natural Resources 795 count toward your 30 credit requirement.
b. Nonthesis Option (available only with the approval of your graduate committee and adviser)
3) Independent study, 3 credits: (library research, management plan, etc.), and
4) Seminar: maximum of 2 credits of Natural Resources 795 count toward your 30 credit requirement.
7. Enroll in Natural Resources 794 every semester that you are not enrolled in Natural Resources 795. You may not substitute Natural Resources 794 for seminar requirements.
8. Additional program requirements are described in the College of Natural Resources' Graduate Student Handbook.

## Culminating Experience

You must take a comprehensive final oral examination conducted by your graduate committee. It may include questions on your thesis or seminar paper and on course work.

## Standards of Academic Progress

You maintain satisfactory academic progress for purposes of financial aid eligibility by earning credit (completing courses with a grade of " $A$ " through " $C$ '") in 75 percent of the total graduate semester hours for which you have been enrolled at UW-Stevens Point.
We determine your academic progress each year in June, and if you, are not making progress, you will be ineligible to receive financial aid until you earn enough credits to again be making satisfactory progress.
You can determine your academic progress percentage from your last grade report, or you can ask for an evaluation by the Records Office. Keep the following seven conditions in mind when considering whether you are
making satisfactory academic progress:

1. "The total graduate semester hours for which you have been enrolled" are all the semester hours for which you have earned a grade of "A," "B," "C," 'D," "F," "P," "I," "W," "WF," or one of these grades followed by a + or -
2. The progress policy applies to you when you accumulate 9 or more enrolled semester hours.
3. Incomplete grades in thesis courses are excluded.
4. Transfer credits are excluded.
5. If you have more than 48 total enrolled semester hours, you are not eligible for financial aid.
6. If you re-enter after being out of school for one or more semesters, you must be making satisfactory academic progress at the time you re-enter in order to qualify for financial aid.
7. If you become ineligible to receive financial aid due to unsatisfactory academic progress, you may appeal to the Dean of Graduate Studies if you feel there are extenuating circumstances. You will recieve information about the appeal process when you get your notice of unsatisfactory progress. Your appeal must be submitted in writing with an explanation for the lack of progress and a plan for improved performance. If your appeal is successful, the Records Office will be informed and your financial aid eligibility, with possible special conditions, will be restored.


## Courses of Instruction

## Undergraduate Course Numbers

000-099
Precollegiate. These courses do not carry college-level credit.
100-199 Freshman level. These courses are open to all students without restriction, if no other prerequisite is listed.
200-299 Sophomore level. The basic prerequisite for these courses is "sophomore standing" which means that you must have already earned 26 college credits. If some other prerequisite is listed for the course, you must meet it in addition to having sophomore standing.
300-399

400-499 Senior level. The basic prerequisite for these courses is "senior standing" which means you must have already earned 86 college credits. Also, meet any other prerequisites that are listed.
If you register for a 200 -, 300 - or 400 -level class when you do not have the required class standing and/or haven't met the stated prerequisite, you must realize that you accept full responsibility for the grade you earn in that class. If you have a good reason to register for a class without having the necessary prerequisites, we recommend that you check with your department chair beforehand.
To receive a bachelor's degree, you must earn at least 40 credits in courses numbered 300-499.

## Graduate Courses

Courses numbered 300/500-399/599 and 400/600-499/699 are offered at two levels. You may take them at the 300or 400 -level for undergraduate credit or at the 500 - or 600 level for graduate credit. Realize that only graduate students may enroll for graduate credit. Courses numbered 700-799 are offered only at the graduate level.

## Pass-Fail Courses

You can register for some undergraduate courses, or certain sections of undergraduate courses on a "Pass-Fail" basis. These courses and/or sections are marked with a " $H$ " in your timetable. See the section in this catalog called More Academic Information for all the regulations pertaining to pass-fail grading.

## Abbreviations

The following abbreviations appear in the course descriptions.

| so st | sophomore standing <br> jr st |
| :--- | :--- |
| junior standing |  |
| sr st | senior standing |
| cr | credit |
| con reg | concurrent registration |
| cons instr | consent of instructor <br> disc |
| discussion |  |
| equiv | equivalent |
| hr(s) | hour(s) |
| lab | laboratory |
| lec | lecture |
| prereq | prerequisite |
| wk(s) | week(s) |


| CIS | Computer Information Systems |
| :--- | :--- |
| GPE | General Physical Education |
| PEX | Physical Education for the Exceptional |
|  | Individual |
| (I) | Course is offered first semester <br> (II) |
| Course is offered second semester |  |
| (SS) | Course is offered in summer session |
| (A) | Course is offered in alternate years |
| COFA | College of Fine Arts |
| L\&S | College of Letters and Science |
| CNR | College of Natural Resources |
| COPS | College of Professional Studies |
| HPERA | School of Health, Physical Education, |
|  | Recreation, and Athletics |

## GDR Abbreviations

These abbreviations appear at the end of course descriptions for courses that meet one or more of the general degree requirements.
GDR General Degree Requirements
COMM Communication 101
ENGL Freshman English
FL Foreign Language
HI History
HU1 Humanities Area 1
HU2 Humanities Area 2
HU3 Humanities Area 3
HU4 Humanities Area 4
MATH Mathematics
NS Natural Science
NW
PE/AA
PE/HE
SS1
SS2
TCI

## Non-Western Culture

Physical Education Aerobic/Activity
Physical Education Health Enhancement
Social Science Category 1
Social Science Category 2
Technology and Contemporary Issues
ACCOUNTING
See Business and Economics.

## AMERICAN STUDIES <br> (College of Letters and Science)

Jon Roberts, Director
Room 417, College of Professional Studies Building
Phone: (715) 346-4479
Faculty: Borowicz, Halverson, Mertz, Mickelson, Roberts, C. Rumsey, G. Skelton, W. Skelton, Sparapani.

## American Studies Major

Consists of a minimum of 36 credits:

1. American Studies 103, 104 and 6 credits of 300 -level American studies courses.
2. Six credits from each of the following four fields with a minimum of 3 credits in each field at the 300 -level
a. American history courses including: History 211, 212, $274 / 374,356,357,358,359,360,366,367,368,369$, 371, 372, 373, 377, 378, 379, 382, 383, 385, 387, 389.
b. American literature courses including: English 213, 214, 280, 313, 329, 360, 382.
c. Humanities courses with emphasis on the United States including: Art 348, 384, 385, 386; Communication 121, 362, 363; Dance 300, Drama 412, Music 102, 329, 304, 305; Philosophy 340; Religious Studies 311, 316, 321 (when appropriate).
d. Social science courses with emphasis on the United States including, Anthropology 339, 371; Economics $311,315,328,345$; Geography $211,226,373$; Political Science $101,102,211,242,250,301,308$, $309,310,312,313,314,315,316,317,320,322$, $341,354,356,358,380,391,392,41,412$; Sociology $102,300,356,363,368$.
American Studies Major with Teacher Certification Consists of a minimum of 42 credits plus student teaching (Education 398).
3. American Studies 103,104 and 6 credits of 300 -level American studies courses.
4. Six credits from each of the following four fields with a minimum of 3 credits in each field at the 300 - level.
a. American history: History 212 is required. Other courses include: History * $211,274 / 374,356,357$, $358,359,360,366,367,368,369,371,372,373$, $377,378, * 379, * 382,383, * 385,387,389$. (Courses marked with asterisk meet human relations requirement.)
b. American literature: Same as 2.b. above.
c. Humanities: Same as 2 c . above.
d. Social science: Same as 2 d, above.
5. Economics 210 or 372 ; Education 339.

## American Studies Minor

Consists of a minimum of 24 credits:

1. American Studies 103,104 and 6 credits of 300 -level American studies courses.
2. Three credits from each of the four fields listed in item 2. of the regular American studies major above, with at least 3 credits in two of the four fields at the 300 -level.

## Courses in American Studies

103. American Civilization to 1870.3 cr . An introductory, interdisciplinary survey of the development of the society and culture of "premodern" America. Focus on changes in religion, political, social, and economic thought, literature, art and architecture, and music. GDR:HU4
104. American Civilization Sirice 1870. 3 cr . An introductory, interdisciplinary survey of the development of the society and culture of modern America. Focus on changes in religious, political, social, and economic thought, literature, art and architecture, and music. GDR:HU4
105. American Lives. Biography and Autobiography. 3 cr. The lives, values, and cultural environments revealed in various examples of biography and autobiography of Americans in such fields as business, labor, politics, religion, science, law, and the arts. Prereq, So st. GDR:HU4
106. American Cultural Internationalism, 3 cr . American culture reflected in interrelationships with representatives of other cultures, including American reactions to foreign countries and peoples, and foreign observers' opinions of Americans, the interaction of immigrant cultures with American life; materials from history, economics, the visual arts, liferature, and music. Prereq: So st. GDR:HU4
300/500. American Life. 3 cr . The integrating course in American studies, for juniors and seniors, emphasizing an interdisciplinary study of American life in terms of concentration on a specific theme or period. A subtitle will be added each time the course is offered. The course may be repeated any number of times, but the same subtitle may not be repeated. (Example: American Life in the 1920s and 1930s, Rural and Small Town Life) GDR:HU4

## 301. Major Directions in American Aris in the 20 th

Century. 3 cr. An integrated survey of major movements

In various American art forms during the present century. A study of theories, techniques, and content in American dance, drama, film, literature, music, and the visual arts. GDR: HU1
302. American Material Culture. 3 cr . Technological, aesthetic, and cultural significance of artifacts (man-made objects) in American social and economic history, such as house interiors, furniture, ceramics, paintings, musical instruments, folk architecture, automobiles, trains, ships, industrial machinery, and restored historical buildings and farms. GDR:HU4
399. Special Work. 1 to 6 cr . Upperclass students may, by agreement with the American Studies director, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project.
701. Contemporary American Calture. 3 cr . Interdisciplinary approach to American life, thought, and creative expression since World War II, materials
integrated from history, literature, the mass media, and the visual arts.

## ANTHROPOLOGY (College of Letters and Science)

Eugene Clark, Chair of Sociology and Anthropology Department<br>Room 488, Collins Classroom Center<br>Phone: (715) 346-3060<br>Courses in anthropology are taught by members of the Department of Sociology and Anthropology, which also administers the major and minors in anthropology.

## Anthropology Major

Consists of 34 credits. Anthropology $101,111,250,280$, and 450 are required. Take one of the following.
Anthropology 334, 335, or 339, plus one sociology course.
Complete the major with electives from anthropology.
Eighteen credits must be in courses numbered 300 or above.

## Anthropology Major for Teacher Certification

 Same as above.
## Anthropology Minor

Consists of a minimum of 18 credits in anthropology including: $101,111,250,280,450$, and one course from 334,335 , or 339 . Complete the minor with electives from anthropology.

## Anthropology Minor for Teacher Certification

Consists of 22 credits. Anthropology $101,111,250,280$, and 450 are required. Select one course from 334,335 , or 339. Complete the minor with electives from anthropology. Nine credits must be in courses numbered 300 or above.

## Sociology and Anthropology Minor

Consists of a minimum of 18 credits. Sociology 101 , Anthropology 101, Sociology 350 OR Anthropology 450 are required. Additional credits are electives.

## Courses in Anthropology

100. Forum in Anthropology. 1 cr. Lectures on and discussions of current social issues or topics in anthropology, A subtitle will be added each time the course is offered. May be repeated under different subtitles for a maximum of 3 credits. Two his per wh or equiv. PASS-FAIL ONLY.

101(NW). Introduction to Anthropology. 3 cr . General introduction to the subdisciplines of anthropology; biological, cultural, linguistics; and archaeology; analysis of human cultural adaptations in various societies around the world. GDR:SS1
111. Introduction to Biological Anthropology. 3 cr . Human cvolution, genetic diversity, and prehistoric cultural development. (A course in high school biology, or Biology 110 is strongly recommended as preparation for this course.)
120. Introduction to Native American Cultures. 3 cr . Introductory survey of selected Native American cultures.
$\mathbf{2 5 0}(\mathrm{NW})$. Introduction to World Prehistory. 3 cr . Development of culture from its beginnings to the historic period, as revealed by archaeological studies. Prereq: 101 or 111 or cons instr. GDR:SS1
280. Culture and Language. 3 cr . Basic anthropological linguistics, ethnolinguistics, language and thought, comparative and historical approaches. Prereq: So st.
295. Special Topics in Anthropology. 1 to 3 cr . A subtitle indicating the topic will be added each time the course is offered; may be taken for credit more than once as subject matter changes. Prereq: 3 cr in anthropology or sociology or cons instr. GDR: SS1 (NW for certain subtitles only)
310. Ways of Mankind. 3 cr . Theories of man's prehistory, language, and culture; ethnographic approach to the cultures of several nonliterate folk, and urban-industrial societies. Credit may not be earned in both 310 and 101.
$312(\mathrm{NW})$. Culture and Personality. 3 cr . Development of personality in relation to patterns of cultures and subcultures in which one grows up; materials will be drawn from literate and and nonliterate cultures. Credit may not be earned in both 312 and Sociology 322. GDR:SS1
320. Anthropology of Religion. Relationships between religion and other institutions in preliterate and peasant societies, and the impact of religion on the individual. Prereq: 101 or Sociology 101 or cons instr.
330. Anthropology of Politics. 3 cr . Comparative approaches to aspects of power, social coordination, conflict and dispute settlement at various levels of cultural complexity. Prereq: 101 or Sociology 101 or cons instr.
334. Peoples of Europe. 2 or 3 cr. Ethnological survey; the cultural organization of European societies and the significance of social change. Prereq: 101 or 310 or Sociology 101 or cons instr. GDR:SSI
$\mathbf{3 3 5}(\mathrm{NW})$. Peoples of Central and South America. 2 or 3 cr. Ethnological survey; the cultural organization of Central and South American societies and the significance of social change. Prereq: 101 or 310 or cons instr. GDR:SS1
339(NW). Indians of North America. 2 or 3 cr .
Ethnological survey; the cultural organization of North American Indian societies and the significance of social change. Prereq: 101 or 310 or Sociology 101 or cons instr. GDR:SS1
340. Field and Laboratory Techniques in Archaeology. 4 to 8 cr . Techniques, methods, and procedures of field and laboratory archaeology discussed and practiced in actual working conditions on archaeological excavation. Offered in summer only. Prereq; cons instr.
342. Environmental Archaeology. 2 or 3 cr .

Interrelationship between historic culture and environment, emphasizing the paleoenvironment and cultural adaptation.

Two hrs lec per week for 2 credits; two additional hrs lab for third credit. Prereq: 101 or 111 or cons instr.
343. The Family: Cultural Perspectives. 2 or 3 cr . The family as a social institution, its place in different cultures and social strata, the impact of industrialization and urbanization. Credit may not be earned in both 343 and Sociology 343.
350. Cultural Ecology. 3 cr . Adaptive interactions between cultures and their material and social environments. Prereq: 101 or Sociology 101 or cons instr.
360. Economic Anthropology. 3 cr . Comparison of economic organizations and problems in primitive peasant societies. Prereq: 101 or Sociology 101 or cons instr.
370(NW). Sociocultural Change in Emergent Countries. 3 cr. Problems and processes of development in emerging countries. GDR:SS1
371. Native North American Cultural Change. 3 cr . Twentieth century sociocultural continuities and changes among selected Native North American societies.
373. Technology and Contemporary Social Problems. 3 cr . Examination of social, cultural and personal consequences of developments in selected technologies. A subtitle will be specified each time the course is offered, such as: nuclear, microelectronic, chemical, mechanical, or biological. May not be repeated for credit under different subtitles.
GDR:TCI BA BS
390. Seminar: Fields of Anthropology. 2 or 3 cr . Theory and research in anthropology as it applies to general and special areas of study. A subtitle indicating the subject will be added each time the course is offered; may be taken for credit more than once as subject matter changes; primarily for majors. Prereq: 9 cr in social sciences or cons instr.
393. Field Trip in Archaeology. 1 to 3 cr. Direct observation of archaeological phenomena within the geological and geographic context; required readings and field notebook. May be repeated with change in locale or topic. Credit may not be earned in both Anthropology 393 and Geology 393 under the same locale or topic.
395. Special Topics in Anthropology. 1 to 3 cr . Selected topics in anthropology will be examined. A subtitle indicating topic will be added each time the course is offered; may be taken for credit more than once as subject matter changes.
450/650. Anthropological Theory. 3 cr . The development of anthropology theories from the early 19th century to the present. Prereq: 101 or 111 or 9 credits in the social sciences.
499. Special Work. 1 to 3 cr. Upperclass students majoring or minoring in anthropology may, by agreement with the chair, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project. The course may be repeated for a maximum of 6 credits.
For more course listings in anthropology, see the Latent Course List at the end of this section.

APPLIED MATHEMATICS
See Mathematics and Computing.

## APPLIED MUSIC

See Music.

Army R.O.T.C.<br>See Military Science.

## ART

(College of Fine Arts)
Rex Dorethy, Chair
Room B-116, College of Fine Arts Building
Phone: (715) 346-2669
Faculty: Brisson, Brueggeman, Dorethy, Emmons, Fabiano, Hagen, Halverson, Keats, Pohlkamp, Runke, Sandmann, R. Schneider, D. Smith, Spencer, Stowers.
The UW-Stevens Point Department of Art is an accredited institutional member of the National Association of Schools of Art and Design (NASAD). The primary purpose of the art and design program is to develop professional artists, designers, teachers, and educated consumers of fine art and commercial imagery.
Education in the visual arts and design is different from other subjects. The arts bring a third dimension to the academic program of the university, that of personal dimension of feeling, sensitivity, empathy, and expression. The visual arts specifically seek to involve students in perceiving the world they live in, reacting to the things they see and feel, and interpreting their emotions, feelings, and insights through a variety of visual materials.
The making of works of art involving various materials and processes, knowledge of art objects in relation to cultural meaning, and the critical evaluation of art products are the basic aspects of visual art program experiences. Studio experience is the foundational enterprise upon which each of these experiences is based. From the technical and creative aspects of art production flow various functions, meaning, and special knowledge areas of education in the visual arts.

## Professional Opportunities in Arts and Design

Art and design graduates are employed in commercial and private firms, government, industry, and education fields. Some become self-employed professional artists and craftsmen. Programs of study in the department prepare you for careers in the visual arts, environmental design, graphic or advertising design, and teaching. Employment as a museum or art program director, crafts program director, studio artist, art administrator, and public school art teacher are among the many other possibilities.

## Recommended High School Preparation

For entry into any of the art and design programs, courses in art and drafting are highly recommended. In addition, if you are planning to enter the professional art and design BFA (Bachelor of Fine Arts) programs or the art teaching field, four years of English, one year of algebra and two years of science are recommended.

## Curricula in Art and Design

You have a variety of curricula from which to choose. Each curriculum is unique, yet there are many courses common to the programs prior to specialization. The major difference found among programs is the course work specially related to the career or area of emphasis. Some of the programs are approved by professional agencies. The Department of Art prepares a curriculum guide and provides an adviser who assists you in planning your long-range programs and specifying the exact
requirements for graduation. You may use your electives to broaden your education, strengthen your area of specialization, or in some cases, meet the needs of two programs of study.
The undergraduate curricula and specialty areas are:

| Drawing | Ceramics |
| :--- | :--- |
| Painting | Crafts |
| Graphic Design (commercial art) | Art History |
| Design Photography | Printmaking |
| Environmental/Product Design | Sculpture |
| Computer Graphics | Metals, |
| Art Education (teaching) | Prearchitecture |

## General Requirements

Study in a variety of areas of knowledge is required of all undergraduates, and these requirements vary depending on the particular degree. The Department of Art offers the Bachelor of Science and the Bachelor of Fine Arts degrees. See the previous section of this catalog entitled General Degree Requirements.
The Art Department requires grade point average retention standards and portfolio review for continuation in its programs. See the department chair for more specific information.

## Courses for Nonart Majors

Courses for the liberal arts student are also offered (see course descriptions and prerequisites). These courses for nonart majors provide you with the opportunity for personal enrichment through the visual arts.

## Requirements for Entry Level and Transfer Students

As an art major, you are not required to submit an entrance portfolio, but you must be prepared to present a portfolio for review and evaluation periodically throughout the program, particularly when entering an art speciality area for your major. If you are transferring art credits from other institutions, you are required to submit a portfolio and transcripts of grades to the department for evaluation.

## Exhibition Material, Visiting Lecturer Program, and the Edna Carlsten Gallery

The department reserves the right to retain examples of student work for exhibition purposes. The department also maintains an ongoing program of visiting artists and lecturers to supplement the curriculum, and a cooperative schedule of operations and exhibitions with the Edna Carlsten Gallery, housed in the College of Fine Arts Building. The gallery regularly displays traveling shows and exhibits for student and public viewing.

## Course Fees

Course fees are charged for certain studio courses to cover the cost of materials supplied to you. In some other cases, you can purchase supplies on a nonprofit basis directly from the Department of Art.

## Art Major

Offered within two baccalaureate degree programs:

1. The Bachelor of Science (B.S.) degree with teacher certification in the field of art education. The major consists of a minimum of 55 credits in art and design including the art core (Art 101, 102, 103, 104, 282, 283, 334); 321, 331, 341, 351, 361, 371, and 490; plus 6 credits in art history.
For teacher certification: Art Education 322, 331, 350; Education $100,351,355,380,381,386$, and 14 credits of 398; Psychology 110, 260, Sociology 305 are also required.
2. The Bachelor of Fine Arts (B.F.A.) in art (the professional art program, with emphasis in visual communications or studio art). The major consists of 76 credits in art or specified related courses. The program requires a 21 -credit core program in art (Art 101, 102, 103, 104, 282, 283, and 334); a 33 -credit art specialty requirement (see below); and a support course component of 15 credits in art, art history; or related areas. Six credits in an elective art area and a culmination senior exhibit course (Art 491) are also required.
a. Visual communication B.F.A. emphasis is available in:
Graphic Design Specialty: Art core; plus Art 201, 202, 207, 236, 308, 309, 310, 311, 331, 410, 411; plus 6 credits in art history, and departmentally approved selections related to the specialty.* Art 491 is required, plus art electives for 6 credits.
Environmental/Product Design Specialty: Art core; plus Art 201, 202, 207, 303, 305, 312, 313, 314, 316, 417. 418; plus 6 credits in art history, and departmentally approved selections related to the specialty.* Art 491 is required, plus art electives for 6 credits.
Design Photography Specialty: Art core; plus Art 201, 202, 207, 236, 305, 315, 320, 401, 402, 404, 405; plus 6 credits in art history and departmentally approved selections related to the specialty.* Art 491 is required, plus art electives for 6 credits.
Computer Graphics Specialty: Art core; plus Art 201, 202, 207, 236, 305, 200, 250, 300, 350, 400, 450; plus 6 credits in art history, Computer Information Systems 102 and 110 , and departmentally approved selections related to the specialty. Art 491 is required, plus art electives for 6 credits.
b. Studio B.F.A. emphasis is available in: Painting-Drawing Specialty: Art core, plus Art 201, 202, 236, 331, 303, 305, 321, 323, 332, 335, 336 or 434; plus 6 credits in art history and departmentally approved selections related to the specialty.* Art 491 is required, plus art electives for 6 credits.
Drawing-Printmaking Specialty: Art core; plus Art 201, 202, 331, 321, 303, 322, 323, 236, 421, 422, 336; plus 6 credits in art history and departmentally approved selections related to the specialty.* Art 491 is required, plus art electives for 6 credits.
Ceramics-Crafts Specialty: Art core; plus Art 201, $202,341,351,371,342,343,361,362,461$ or 344 ; plus 6 credits in art history and departmentally approved selections related to the specialty.* Art 491 is required, plus art electives for 6 credits.
Sculpture-Metals Specialty: Art core; plus Art 201, 202, 236 or $303,361,371,351,352,372,451,452$, 471; plus 6 credits in art history and departmentally approved selections related to the specialty.* Art 491 is required, plus art electives for 6 credits.
(*) Computer and computer-graphics courses are recommended, especially in the design areas.
If you elect the BFA program, we encourage you to enhance your specialty by selecting a variety of course groupings that will satisfy your special interests. The Art Department chair or your adviser will help you prepare for the professional studio or design program, or art education teacher certification.

In certain cases, you can make substitutions with the permission of the chair of the Art Department.
Prearchitecture: The prearchitecture program provides you with an approved preliminary program for the architecture field. Courses include Art 101, 102, 103, 282, 283, 331, 381, and 386; plus requirements in mathematics, English, philosophy, physics, geology, communication, and others. Since entrance requirements to individual architecture schools vary, it's a good idea to get a copy of the catalog of the specific school you plan to attend. Then your adviser can help you plan your program.

## Art Minor

Consists of 21 credits:

1. Art 101 or Fashion/Interior Design 101; Art 102, 103.
2. Three of these: Art 106, 202, 321, 331, 334, 341, 343, 347, 351, 361, 371.
3. Art (History) 282, 283 or 381.

## Art History Minor

Consists of 21 credits:

1. Art 101, 102.
2. Art (History) 282, 283.
3. Three of these: Art (History) 382, 383, 384, 385, 386, 387, 388, 398K, 399K.

## Courses in Art

Also see Art Education.
101. Design: 2-dimensional. 3 cr . Fundamental design principles in the art process, including art structure, color theory, and principles of arrangement, utilizing a variety of materials. Students may not receive credit for both Art 101 and Fashion/Interior Design 101.
102. Design: 3-dimensional. 3 cr . Fundamental design principles in the art process, in structure and arrangement, utilizing a variety of materials.

103. Basic Drawing. 3 cr. Basic drawing utilizing media and emphasis on visual perception and awareness.
104. Drawing. 3 cr. Advanced drawing utilizing a variety of subject matter, media, and approaches, emphasizing rendering skill and development. Prereq: 103.
106. Layout and Lettering. 3 cr. Fundamentals of lettering in various alphabets; problems in poster, sign, and advertising layout in a variety of media.
181. History and Appreciation of Art. 3 cr. Themes and purpose of art; how art functions in society and influences the individual; the motivation of the artists who create it. May not be taken for credit toward the art major; credit will not be granted for both 181 and 381, GDR:HU1
200. Introduction to Computers in Art. Explores the computer as a tool for graphic imaging and acquaints the student with computer graphic possibilities in all facets of production in the visual arts. Prereq. 101, 103, basic computing; or cons instr.
201. Advanced Design Studio. 3 cr. Application of design theory and concepts through an investigation and use of various media and materials. Prereq: 101, 102, or cons instr.
202. Color. 3 cr. Color theory and practice in the perception, understanding, and usage of color. Prereq. 101 or Fashion/Interior Design 101.
207. Introduction to Design Typography. 3 cr. Study of the technical and aesthetic decisions that are the responsibility of the graphic design specialist in typography. Prereq: Art core.
236. Life Drawing. 3 cr. Drawing the human figure with attention to anatomy, utilizing a variety of media. Prereq: 103.
250. Computer Images in Art and Design, 3 cr. Advanced computer design concepts will be experienced, as well as application of these concepts to other visual art areas such as studio production, visual communication, and art education. Prereq: 200 or cons instr.
282. Survey of Art History 1. 3 cr. History of art in ancient and medieval cultures. Human aesthetic response recorded in the architecture, painting and sculpture of Egypt, Greece, Rome, and medieval Europe. Prereq: So st. GDR:HU1
283. Survey of Art History 11. 3 cr. History of art from the 15 th century to the present. Human aesthetic response reflected in the architecture, sculpture, and painting of the western cultures. Prereq: So st or cons instr. GDR:HU1
284(NW). Suryey of the Arts of Africa, Oceania, and the Americas. 3 cr. The arts of Sub-Saharan Africa, Oceania, and Indian art of North and South America before 1520. Prereq: So st or cons instr, GDR:HU1
300. Computer Graphics. 3 cr. Emphasizes advanced computer graphic images produced by contemporary computer equipment and software with various forms of bigh quality visual images. Prereq: 200 or cons instr. 305. Airbrush. 3 cr. Exploration of materials and techniques of airbrush painting as they apply toward the solution of painting, illustration, and design problems. Prereq: 101, 202, 334, or cons instr.
303. Drawing. 3 cr. Advanced problems in drawing emphasizing conceptual development. Prereq. 103.
308. Introduction to Graphic Design. 3 cr. Basic techniques for production of commercial graphics utilizing visual imagery, media, and production processes.
309. Ilustration. 3 cr. Basic illustration techniques with emphasis on marker rendering, color pencil, and other illustration media relevant to the graphic design field. Prereq: Art core.
310. Advanced Illustration. 3 cr. Technical and graphic illustration utilizing special techniques and media for the graphic designer. Prereq: 309, or cons instr.
311. Advanced Graphic Design I. 3 cr. Advanced studies in graphic design involving the combination of photographic, typographic, and rendered elements in applied professional and sequential problems. The content stresses the processes of designing images for print processes. Prereq. 308, 309.
312. Introduction to Product Design. 3 cr. Visual problemsolving as related to product design: terminology, drafting, model-making and prototypes. Prereq: 102 or 201 or cons instr.
313. Introduction to Environmental Design. 3 cr. Use of illustration and three-dimensional models as a means of exploring product environments, design, and presentation; fundamentals, terminology, and methods of communication for the environmental profession. Prereq. Art core or 201 or cons instr.
314. Product Design Rendering, 3 cr. Studio practice with professional product design techniques and presenting three-dimensional designs on a two-dimensional surface. Prereq: 201 or 313 or cons instr.
315. Design Photo I. 3 cr. Introductory study of photography with emphasis on the development of photographic vision as well as technical proficiency as an expressive art form in design. Student must furnish own light meter and camera with adjustable aperture and focusing. Prereq. Basic photo skills, 102 or 201, or cons instr.
316. Product Design and Development. 3 cr. Research, design, and development of objects for manufacture; indepth projects include drawings, renderings, and models or prototypes. May be repeated to 6 credits. Prereq. 313 and 314 , or cons instr.
320. Design Photo 11, 3 cr. Introduction of commercial photography as well as further study of photo history; emphasis on photography as an expressive art form, and exploration of photographic vision, technical concerns, and aesthetic aspects of photography. Prereq: For art majors, $101,102,315$; for others, cons instr.
321. Printmaking. 3 cr. Printmaking in black and white, and color, employing basic graphics media and techniques. Prereq: 103.
322. Printmaking. 3 cr. Advanced problems in the graphics media. Prereq: 321.
323. Papermaking, 3 cr . Work with various papermaking processes, involving different pulps, aggregates, fibers, use of molds, deckles, couching paper on felts, and use of equipment such as vats, beaters, and dryers; emphasis on creative use of papermaking by artists, Six hrs lab per wk. Prereq: 221 or cons instr.
331. Painting: Watercolor. 3 cr. Problems in the aqueous media emphasizing transparent and opaque watercolor on paper. Prereq: 103.
332. Painting: Watercolor. 3 cr. Advanced problems in watercolor media. Prereq: 331.
334. Painting. 3 cr . Contemporary and traditional techniques and problems in painting in a variety of media. Prereq: 103.
335. Painting. 3 cr . Advanced problems in the oil medium and other contemporary media. Prereq: 334.
336. Life Drawing. 3 cr . Continuation of study of the human figure with emphasis on experimental work. Prereq: 236.
341. Crafts. 3 cr . Application of design principles in various craft activities. Prereq: 103.
342. Crafts. 3 cr . Advanced problems of applied design in various craft activities. Prereq: 341.
343. Fiber Arts. 3 cr. Exploration of fiber arts; thematic imagery through techniques of fabric printing, tapestry image, woven sculpture, and sewn sculpture; individual student work must include two of these areas. Prereq: 103 or Fashion/Interior Design 101 or cons instr.
344. Fiber Arts. 3 cr. Advanced problems in fiber arts; exploration of techniques not covered in 343, with emphasis on individual development of content. Prereq: 343.

347(NW). Crafts of the American Indians. 2 or 3 cr. A laboratory investigation into the material culture of the Indians of North America with emphasis on the traditional crafts of the woodland cultures; experience in such crafts as weaving, lapidary, basketry, quill embroidery, ceramics, and other media available directly from natural resources; field trips. Prereq: Jr st or cons instr. GDR:HU1
348. Crafts of the American Indians. 2 or 3 cr . Course to be determined between student and instructor on the basis of previous work. Prereq: 347 or cons instr.
350. Computer Graphics II. 3 cr. Advanced study in the areas of 3-D space manipulation utilizing concepts of solids modeling and 3-D vector graphics. Prereq: 200, 300.
351. Sculpture. 3 cr. Introduction to materials and techniques of sculpture. Prereq: 103.
352. Sculpture. 3 cr . Advanced problems in sculpture including a greater variety of materials and advanced techniques. Prereq: 351.
361. Ceramics. 3 cr . Introduction to the materials and techniques of ceramics; methods of construction of ceramic ware, glazing, firing, and kiln management. Prereq: 103.
362. Ceramics. 3 cr . Advanced problems and techniques in ceramic art. Prereq: 361.
371. Art Metal. 3 cr . Basic materials and techniques of art metal. Prereq: 103.
372. Art Metal. 3 cr. Advanced problems in art metal. Prereq: 371.
381. History of the Visual Arts. 3 cr. Major periods, styles, artists, and problems of architecture, sculpture, and painting. Not open to art majors to fulfill Art Department history requirements or to students who have had Art 282 or 283. GDR:HU1
382/582(NW). History of Latin American Art. 3 cr. Survey of the visual arts of Latin America from prehistoric to contemporary times. GDR:HU1
$383 / 583$. History of 19 th and 20th Century European
Painting. 3 cr . Survey of the development of modern
European painting. GDR:HU1
384/584. History of American Painting to the End of WW
II. 3 cr . Survey from the colonial period to 1945.

GDR:HU1
385/585. History of American Painting and Sculpture Since WW II. 3 cr . Survey of recent American painting and sculpture; abstract expressionism to the present. GDR:HU1

386/586. History of Architecture and Design. 3 cr . Survey of modern architecture and design in the 19th and 20th centuries. Prereq: 282 or 283 or 381 . GDR:HU1
387/587. History of Classical Art. 3 cr. Survey of the classical tradition with emphasis on its development in the Greek world. GDR:HU1
388/588. Sub-Saharan African Arts. 3 cr. Survey of the visual tribal arts of black Africa with emphasis on architecture and sculpture. GDR:HU1
389/589. Italian Renaissance Art. 3 cr. Historical survey of Italian architecture, painting, and sculpture from Giotto to Michelangelo. Prereq: 282, or 283, or 381, or cons instr. GDR:HU1
390. Economic Survival Techniques for the Professional Artist. 3 cr . Fiscal and legal aspects of the field of professional art; survey of basic, sound business practices, production and marketing, advertising, competitive bidding and commissions, contracts, client development, etc.
Prereq: Jr st as an art major or minor, or cons instr.
398. Special Topics. 1, 2, or 3 cr . Group work in one medium, technique, or area. Subtitle and credit value will be added each time the course is offered. Department approval is required.

398A-Graphic Design; 398B-Drawing; 398C-
Printmaking; 398D-Paintings; 398F-Crafts; 398G-
Sculpture; 398H-Ceramics; 398J-Art Metal; 398K-Art
History; 398L-Z (subtitle to be supplied).
399. Special Work. 1, 2, or 3 cr . Upperclass students majoring or minoring in art may, by agreement with the chair and an appropriate member of the Art Department, arrange for special advanced work, for which credit may be allowed on the basis of the scope of the work intended:

399A-Design; 399B-Drawing; 399C-Printmaking; 399D-
Painting; 399F-Crafts; 399G-Sculpture; 399H-Ceramics;
399J-Art Metal; 399K-Art History; 399L-Z (subtitle to be supplied).
400. Computer-Aided Design 1. 3 cr . Uses the computer as a tool to supplement design rendering, with emphasis on 2D and 3-D space and form planning and organization.
Advanced microcomputer-aided design skills which run in a microenvironment are developed. Prereq: 200 or cons instr.
401. Design Photo III. 3 cr. Major emphasis on learning to generate and intensify graphic communication through the medium of black and white photography; projects of considerable depth and content are developed individually under the guidance of the instructor. Student must provide own light meter, camera with adjustable aperture, time setting, and focusing. Prereq: $\mathbf{3 2 0}$ for art majors; for others, cons instr.
402. Large Format Photography. 3 cr. Design photography with cameras larger than 35 mm as instruments for expression and illustration; emphasis on the $4 \times 5$ camera and its characteristics in the design photo profession. Prereq: 315, 320.
404. Design and Lighting Techniques. 3 cr. Advanced study in the area of personal and commercial photography with emphasis on controlled lighting techniques. Prereq: 315, 320 or cons instr.
405. Commercial Photography. 3 cr . Commercial applications of the photographic medium with historical perspective. Problems will be assigned with emphasis on the practical application of photography to commercial art. Prereq: $\mathbf{3 2 0}$ or cons instr.
410. Advanced Graphic Design II. 3 cr. Advanced design problems exploring the practical application of conceptual and design principles to the visual aspects of consumer imagery. Prereq: 311.
411. Advanced Graphic Design III. 3 cr. Advanced graphic design image development. Contracts for the designer, portfolio development, and presentation skills. Prereq: 410.
417. Environmental/Product Design. 3 cr. Contemporary environmental and product planning, including projects dealing with a variety of spaces and functions, use of renderings and models. May be repeated to 6 crs. Prereq: 313 or cons instr.
418. Senior Design Problems. 3 cr. Specific problems chosen from actual product or graphic design situations; research, design, and presentation handled as a final portfolio project. Prereq: Sr st in visual communications art sequence.
419. Design Internship. $3-9$ cr. Studio experience in a chosen area design firm; credit approved on submission of portfolio and written description of experience in consultation with the firm; elective credits only. Prereq. 15 cr of advanced visual communications art studies; consent of design faculty in art.
421. Printmaking. 3 cr. Course of study to be determined between student and instructor, based on previous course work in the same medium. Prereq: 322 .
422. Printmaking, 3 cr. Senior semester professional experiences; media problems to be determined between instructor and student. Prereq: 421.
431. Watercolor. 3 cr . Course of study to be determined between student and instructor, based on previous course work in the same medium. Prereq 322.
432. Watercolor. 3 cr. Senior semester professional experiences; media problems to be determined between instructor and student. Prereq: 431.
434. Painting. 3 cr. Course of study to be determined between student and instructor, based on previous course work in the same medium. Prereq: 335 .
435. Painting. 3 cr. Senior semester professional experiences; media problems to be determined between instructor and student. Prereq: 434.
436. Life Drawing. 3 cr. Course of study to be determined between student and instructor, based on previous course work in the same medium. Prereq: 336 or cons instr.
441. Crafts. 3 cr. Course of study to be determined between student and instructor, based on previous course work in the same medium. Prereq 342 .
442. Crafts. 3 cr. Senior semester professional experiences; media problems to be determined between instructor and student. Prereq: 441.
443. Fiber Arts. 3 cr. Senior semester; work to be determined between instructor and student on the basis of previous experience in fiber arts. Prereq: 344.
450. Computer-Aided Design II. 3 cr. Emphasis on 3-D space and form/solids modeling, with advanced CAD concepts. Prereq. 200, 400, or cons instr.
451. Sculpture. 3 cr. Course of study to be determined between student and instructor, based on previous course work in the same medium. Prereq: 352 .
452. Sculpture. 3 cr. Senior semester professional experiences; media problems to be determined between instructor and student. Prereq; 451.
461. Ceramics. 3 cr. Course of study to be determined between student and instructor, based on previous course work in the same medium. Prereq: 362.
462. Ceramics. 3 cr. Senior semester professional experiences; media problems to be determined between instructor and student. Prereq. 461.
471. Art Metal. 3 cr. Course of study to be determined between student and instructor, based on previous course work in the same medium. Prereq: 372.
472. Art Metal. 3 cr. Senior semester professional experiences; media problems to be determined between instructor and student. Prereq: 471.
490. Seminar. 2 cr. Research into problems and developments in the field of art. Open only to art majors.
491. Senior Exhibition. 1 cr. Student preparation, organization, and installation of an exhibition in the Edna Carlsten gallery; faculty evaluations of exhibition. Prereq: Sr st in art major.
701. Historical and Philosophical Concepts of Art. 3 cr. Philosophical and aesthetic aspects of art in both its historical and contemporary phases; the arts in the life of the individual; the function of arts in society. For students with little or no background in Art.
703. Drawing, 3 cr. Advanced problems in drawing with emphsis on the development of individual direction, utilizing a variety of media. Prereq: One yr of appropriate course work and cons instr.
721. Printmaking. 3 cr. Individual research and execution of problems in chosen processes of printmaking, emphasis on experimentation, personal concept and increased development of technical proficiency; acquisition of historical printmaking background, and print study. Prereq: One yr of appropriate course work and cons instr.
731. Painting: Watercolor. 3 cr. Advanced problems in transparent and opaque watercolor with emphasis on the development of individual direction. Prereq: One yr of appropriate course work and cons instr.
734. Painting. 3 cr. Advanced problems in painting with emphasis on the development of individual direction, utilizing a variety of media. Prereq. One yr of appropriate course work and cons instr.
736. Life Drawing. 3 cr. Advanced problems in drawing with emphasis on the development of individual direction, utilizing a variety of media. Prereq: One yr of appropriate course work and cons instr.
741. Crafts. 3 cr. Continuing studio investigations in a variety of craft materials based upon previous student experience. Prereq: One yr of appropriate course work and cons instr.
743. Fiber Arts. 3 cr. Advanced problems in traditional and contemporary techniques in weaving, fabrics, dyes, and design; course of study to be determined between student and instructor, on the basis of previous work. Prereq: One yr of appropriate course work and cons instr.
751. Sculpture. 3 cr. Course of study to be determined between student and instructor on the basis of previous work. Prereq: One yr of appropriate course work and cons instr.
761. Ceramics. 3 cr. Glaze calculation, clay body formulation, kiln management; advanced construction techniques and skill development; research project required. Prereq: One yr of appropriate course work and cons instr.
771. Art Metal. 3 cr . Advanced studio involvement in historical and contemporary practices in metal, lapidary, and related media. Prereq: One yr of appropriate course work and cons instr.
796. Independent Study. 1 to 3 cr . Special work. Prereq: Cons instr.

## Courses in Art Education

322. Techniques in the Elementary School: Art. 2 cr. Methods, materials, and philosophy.
323. Techniques in Secondary Education: Art. 2 cr. Aims, methods, techniques, planning, organization, testing, etc.
340/540. Curriculum in Art. 2 cr. Seminar in planning and developing an individual or group art curriculum for grades K-12. Prereq: Education 398 or cons instr.
350/550. Art for the Exceptional Child. 3 cr. Ideas, materials, and methods of art for children and youth with special needs and/or special learning capabilities. Prereq: Education 351/551, or cons instr (for certified teachers).

## ASIAN STUDIES

(College of Letters and Science)
Hugh Walker, Coordinator
Room 434, College of Professional Studies Building
Phone: (715) 346-4492
Faculty: Bailiff, Coppinger, Herman, Overholt, B. Singh, Walker.

## Asian Studies Minor

Consists of 24 credits:

1. Basic Courses - 12 credits selected from the following: Asian Studies 101; Geography 327; History 215, 216; Philosophy 105; Political Science 206 (when offered with primary emphasis on Asia).
2. Specialized Courses - 12 credits selected from the following specialized Asian content courses (area or disciplinary emphasis to be determined in consultation with the coordinator): Anthropology 337; Asian Studies 399; History 344, 345, 346, 347, 348, 349, 350, 351 ; Music 428, Philosophy 335, 336, 337, 338; Political Science 370,396 (when offered with primary emphasis on Asia); Religious Studies 100; Sociology 375.
3. Asian language study is acceptable for credit toward the minor.

## Courses in Asian Studies

101. Introduction to Asian Studies. 3 cr . Traditional and contemporary Asia, emphasizing its unity and diversity, from an interdisciplinary approach; geographical, historical, philosophical, religious, governmental, social, anthropological, linguistic, literary, artistic, and cultural aspects of Asian life.
102. Special Work. 1 to 3 cr . Upperclass students in the Asian studies minor may, by agreement with the Asian studies coordinator, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project.

## ASTRONOMY

(College of Letters and Science)
Francis L. Schmitz, Chair of Physics and Astronomy Department
Room B-109, Science Building
Phone: (715) 346-2139

Courses in Astronomy are taught by members of the Department of Physics and Astronomy.

## NOTES:

1. You may not take both Astronomy 100 and 311 for credit.
2. If you take Astronomy 105 and 106, you may not take 100 or 311 for credit.

## Courses in Astronomy

100. Unveiling the Universe. 3 cr . An encounter with man's ideas concerning the physical universe, from earth to intergalactic space. Two hrs lec, two hrs lab per wk. GDR:NS
101. The Solar System. 4 cr. A contemporary perspective with emphasis on understanding basic principles of astronomy; recent results of space exploration. Three hrs lec, three hrs lab per wk. Prereq: Math 100 or equiv. GDR:NS
102. Stars and Stellar Systems. 4 cr. An examination of the content and evolution of the universe, including the birth and death of stars, the nature of galaxies, and the mystery of quasars and blackholes, with emphasis on understanding physical concepts. Three hrs lec, three hrs lab per wk. Prereq: Math 100 or equiv. GDR:NS
103. Introduction to Astronomy. 3 cr. Descriptive approach to astronomy through study of the solar system, stars, star clusters, nebulae, and galaxies; evening meetings required for observation; use made of telescopes and planetarium. Not open to students who have had 105 and 106. GDR: NS BS

370/570. Astronomy for Teachers. 4 cr . An introduction, with emphasis on the Earth, Moon, Sun, and the total solar system, stars, star systems, and recent discoveries; emphasis on teaching. Prereq: Experience in, or preparation for, teaching science.


371/571. Laboratory in Planctarium Studies. 2 cr. Planetarium studies, laboratory exercises, night sky observations, geometric optics, atomic physics, spectrum analysis, celestial sphere exercises, the Moon, Saturn and its rings, the Sun and sunspots, stellar classification, and curriculum materials for grades K-8. Four hrs lab per wk, night observations. Prereq. Experience in, or preparation for, teaching science.
380. Selected Topics. 1 to 3 cr. Topic will be announced in the timetable. Prereq. Cons instr.
796. Independent Study, 1 to 4 cr. Planned study designed to enrich and supplement the student's preparation in astronomy. Regular scheduled conferences with the staff supervisor.

## AUDIOLOGY

See Communicative Disorders.

## BIOLOGY

(College of Letters and Science)
Virgil A. Thiesfeld, Chair
Room 110, College of Nataral Resources Building
Phone: (715) 346-2159
Faculty: Bowers, Copes, Crowther, John D. Curtis, Freckmann, Gasque, Geeseman, Hall, Harris, Heig, Hillier, G. Knopf, LeGrande, Charles Long, Post, Roeder, Sepsenwol, Staszak, E. Stern, S. Taft, Temp, Thiesfeld, S. Van Horn, Charley White.

NOTE: The biology major is the same regardless of the type of degree earned (B,A, or B.S.) or the college from which the student graduates. If you have a single major (biology), you will graduate from the College of Letters and Science. If you are in education, you may graduate from either the College of Letters and Science or from the College of Professional Studies. If you have a double major, such as biology and natural resources, you may graduate from the College of Letters and Science or the College of Natural Resources.

## Biology Major

1. A minimum of 34 credits in biology as follows:
a. Biology 130, 160, 210, 305, 306, and 490 .
b. One of the following: Biology 281, or 285, or 314, or 351 .
c. An additional plant course selected from the following: Biology 330, 331, 335, 337, 338, 342, 344, 346, 351. (The advanced plant course must be at least 3 credits AND include laboratory.) For combinations of 1 - and 2 -credit courses you need to get approval from the department chair.
d. An additional animal course selected from the following: Biology 281, 285, 360, 361, 362, 367, 370, $371,373,374,375,376,377,378,379,381,388$. (The advanced animal course must be at least 3 credits AND include laboratory.) For combinations of 1 - and 2 -credit courses you need to get approval from the department chair.
e. At least one biology course must be a writing emphasis (WE) course.
f. Elective credits in biology.
2. Collateral courses:
a. Chemistry 105 and 106 , or 115 and 116 .
b. Mathematics 116 and 117 , or 120 , or 355 .
(Exemption from general degree requirements for mathematics does not exempt biology majors from this requirement.)
Chemistry 365 (Biochemistry); Water 387 (Aquatic Insects), 481 (Limnology), and 483 (Limnological Methods) are acceptable as part of the biology major. See 1.f. above.
To be approved for graduation, you need a minimum cumulative grade point average of 2.00 ( 2.75 to student teach) in courses taken within the biology major, including collateral courses, regardless of declaration of academic bankruptcy. Transfer students meet this requirement by having at least a 2.00 GPA in the total major AND at least a 2.00 cumulative GPA in courses taken at Stevens Point for the biology major.
For teacher certification, the minimum cumulative GPA is 2.50 with transfer students subject to the conditions listed above.
No more than 6 credits of ' $D$ " work in biology courses will be counted toward the completion of the biology major. All grades of ' $D$ ' or " $F$ '" are used to compute the cumulative GPA in the major. If a course is repeated, the last grade earned is the grade used in the GPA calculation. The department chair may allow exceptions on a conditional basis.
To graduate with a biology major, you should be accepted into the department before preregistering for the first semester of your junior year. Application forms are available from the department office (Room 110, CNR Building). To be accepted you need a 2.00 GPA overall, as well as in biology and collateral courses. If your GPA is only slightly above 2.00 , or you have not completed three courses in biology, you may be provisionally accepted. You can apply again for full acceptance as soon as you remove the deficiency.
Check with the chair during your junior year to be certain you have the proper courses.

## Biology Minor

Consists of a minimum of 22 credits:

1. Biology 130 and 160.
2. Any two of the following categories:
a. Biology 210.
b. Biology 305.
c. Biology 281, or 285, or 314, or 351 .
3. Elective credits in biology.

To be approved for graduation with a minor in biology, you need a minimum cumulative grade point average of 2.00 in all courses taken within the biology minor regardless of a declaration of academic bankruptcy. Transfer students are subject to the conditions listed under the major. Approval to student teach requires a minimum GPA of 2.50 ( 2.75 for an internship) and a major in some other science (eg. natural science, chemistry, etc.).
No more than 6 credits of " $D$ ' work in biology courses will be counted toward the completion of the biology minor. All grades of " $D$ " or " $F$ '" are used to compute the cumulative GPA in the minor. If a course is repeated, the last grade earned is the grade used in the GPA calculation. The department chair may allow exceptions on a conditional basis.

## Areas of Emphasis

Include the courses specified for the major plus the following suggestions. You should discuss your selection of options and recommended courses with your adviser to ensure adequate preparation for specific careers. The

## Biology

handbook for majors is very helpful and is available at the department office.
With the minimum requirements for a biology major most students will be able to enter a profession upon graduation. If you want to advance in your profession after employment, it will be wise to take a year of university mathematics, physics, and chemistry (through organic).
Aquatic Biology: Recommended: 360 or 361 or Water 387; 338, 347, 374; Chemistry 220, or 325 and 326;
Mathematics 355; Physics 103, or 201 and 202; Water 481, 483. Supplementary: Biology 362, 367, 375; Water 389, 480, 482, 484, 488.
Biobusiness: Recommended: 337, 342, 346, 351, 367; Soils
260, or 325; Communication 336; Economics 210 (211); Biology 333, 335; Business 330, 370; Chemistry 220, or 225 , or 260 ; Communication 336; Economics 200 (201); English 354; Geography 110. Additional applicable courses for landscaping: Art 101, 102; Biology 344; Forestry 333; Geography 373; Natural Resources 171, 368, 369.
Biotechnology: 310, 314, 326, 333, 399, 498, Chemistry 365, Physics.
Botany: Recommended: 330, 337, 342, 346, 351, 355; Organic Chemistry. Supplementary: 314, 331; 333 or 355 ; 344, 367; Soils 260. Cytotechnology: 285, Chemistry 220, Psychology ( 6 credits), Sociology ( 3 credits). See department chair for complete details.
Ecology/Environmental: Recommended: 281 or 351; 333, 342, 360, 367, 372, Modules in Ecology; Chemistry 220; Mathematics 355; Soils 260; Geography 379; Computer Information Systems 102. Supplementary: Geography 102, 103; Mathematics 116 and 117; Physics 103, or 201 and 202; Political Science 304; Philosophy 380; Natural Resources 481.
Education: Recommended: 281 or $285 ; 330$ or $342 ; 314$ or 333 or 351 . Supplementary: 355 or $385 ; 360,367$ or 372.
Graduate Work/Research: Many graduate programs in biology require a full year of organic chemistry, physics, and mathematics through calculus and statistics. See your adviser for specifics.
Microbiology: Recommended: 314; 362 or 364; 333, 335, 338. Supplementary: 337, 360, 399. Supplementary: 337, 360, 399; Mathematics 355 ; chemistry minor.
Natural History: Recommended: 322, 342, 360, 367, 372, 379. Supplementary: 339, 399; Geology 101; Geography 101; Natural Resources 368, 369.
Zoology: Recommended: 281; 311 or 314; 370 or 371; 344 or 360 or 361 or 362 or 367 ; 372 or 374 or 375 or 376 or 377 or 378 . Supplementary: 310, 320, 322, 373, 381, 385, 388; Water 481; Geology 339.
Preprofessional: All areas listed below require Biology 160, English, humanities, psychology, sociology, and speech. See the appropriate preprofessional adviser for suggested electives and requirements of specific schools.
Prechiropractic: Two years ( 60 credits) of college work. English 101, 102; Psychology 110; Chemistry 105 and 106 or 115 and 116, 220; Biology 160, 285.
Predental: Chemistry 115, 116, 325, 326, 328; Mathematics 116 and 117 , or 120 ; Physics 103 , 104; additional helpful courses: Art 102, 103; Biology 210, 285, 314, 371; Psychology 260 or 315.
Premedical: Biology 210, 285; 314 or 370 or 371;
Chemistry $115,116,248,325,326,328$; Physics 103 , 104;

Mathematics 116, 117, 120, 121; additional helpful courses: Biology 333, 373, 381; Chemistry 365.
Premortuary: A minimum of at least 28 credits including: Business 210; one year of chemistry; Mathematics 100 .
Preoptometry: Normally, at least 90 credits including: Chemistry 115, 116, 220; Mathematics 116, 117, 355; Physics 103, 104; additional helpful courses: Biology 285, 333, 370; Psychology 110, 260.
Preveterinary: Biology 130, 210, 283, 333; Chemistry 115, $116 ; 260$ or $365 ; 325,326,328$; Mathematics 116,117 or 120; Physics 103, 104.

## Courses in Biology

50. Science Skills. 2 cr . Basic concepts and skills in mathematics and science as they apply to biology and other sciences. For students whose previous academic preparation is inadequate for introductory-level science courses. Does not apply toward any degree. Does not apply toward the biology major or minor. Two hrs lec, two hrs disc per wk for eight wks. Prereq: Placement in Mathematics 051.
51. Biological Principles and the Human Environment. 3 cr. A survey of biology with special emphasis on present and future relationships of humans to their environment. Two hrs lec, three hrs lab per week. Credit for graduation or general requirements for a degree will not be given if Biology 101 or 130 or 160 is also taken. GDR:NS
52. General Biology. 5 cr . Biological principles; survey of a wide variety of plant and animal life. Three hrs lec, three hrs lab per wk. If Biology 130 or 160 (or equiv) is taken, 101 can be counted for graduation or for the major only with approval of the chair. Credit for general degree requirements will not be given if Biology 130 or 160 is also taken. Additional evening test sections for major exams. GDR:NS
53. Introduction to Plant Biology. 5 cr. General biological principles with emphasis on growth, reproduction, structure, and functions of plants; morphological studies of typical plants. Three hrs lec, four hrs lab per wk. GDR:NS
54. Edible and Poisonous Plants. 2 cr . Identification of edible and poisonous plants, especially local wild species of higher plants; nutritional values and toxic components.
One hr lec, two hrs lab per wk. Does not apply toward natural science requirement for a degree.
55. Introduction to Animal Biology. 5 cr . Anatomy, physiology, adaptation, and classification of animals; morphology and anatomy of various types of animals. Three hrs lec, three hrs lab per wk. Additional two-hour test sections four times during the semester. GDR:NS
56. Principles of Genetics. 3 cr . General principles of heredity and variation of plants and animals, including humans. Prereq: So st.
57. Career Development in the Biological Sciences. 1 cr . Investigation of career and graduate school opportunities in the biological sciences. Student interests are assessed by using the Myers-Briggs Type Indicator, Motivated Abilities Pattern and Sigi*, career software program. Special careerrelated skills emphasized include resumes, informational interviews, job searching and interviewing skills, technical writing/publication and grant writing. Fields of biology to be surveyed are partly dependent on interests of enrolled students. One hr lec per wk. Prereq: Declared biology major or minor or cons instr.
58. Introductory Bird Study. 2 cr . Identification, life histories, and external morphology of the common birds of Wisconsin. One hr lec, two hrs lab per wk. Not open to
students majoring or minoring in biology or natural resources. Prereq: So st.
59. Animal Physiology, 4 cr. Normal functions of organ systems primarily in vertebrates but with some consideration of invertebrates; designed to fulfill the physiology requirements of biology and wildlife majors. Three hrs lec, three hrs lab per wk. Prereq: 160. Credit for this course cannot be counted for graduation or the major if Biology 285 (or equiv) is counted.
60. Human Physiology, 4 cr. Normal functions of organ systems in humans; designed to fulfill the physiology requirements of biology, human development and nutritional sciences, physical education majors, and students with preprofessional interests in medical or paramedical fields. Three hrs lec, three hrs lab per wk. Prereq: 160, or 101 and Chemistry 101. Credit for this course cannot be counted for graduation or the major if Biology 281 (or equiv) is counted. GDR:NS BS (PE majors only)
61. Ecological Perspectives. Introduction to "the way an ecologist thinks," emphasizing contemporary problems which have arisen where human technology interacts with natural biological systems. Field trips to be arranged. Credit for this course cannot be counted toward the biology major or minor. GDR:TCI BA BS
62. General Ecology. 3 cr. Interrelationships of plants and animals; ecosystem concepts, organization and distribution of biotic communities; application of ecological principles to human affairs. Prereq. 101 , or 130 and 160 .
63. Ecological Methods. 1 cr. Application of ecological methods in field and laboratory analyses of ecosystems. Three hrs lab per wk. Prereq: Con reg in 305; or 305 and cons instr.
307/507. Microenvironmental Analysis Laboratory, 1 cr. Measurement of microenvironmental variation in terrestrial ecosystems; implications for distribution and functioning of plants and animals. One hr lec-lab plus two hrs unscheduled per wk. Prereq, 305 or cons instr. Con reg in 307 or 356 (labs) recommended.
308/508. Ecology of the Upper Midwest. 2 cr. Survey of the boreal forest, deciduous forest, and prairie biomes, with emphasis on the relationships of the fauna to vegetation composition and form. Two hrs lec, three hrs lab for eight wks. Local field trips.
309/509. Field Biology. 3 cr. Field trips; collections, preparation, and identification of plants and animals. One hr lec, four hrs lab per wk. If 379 is also taken, credit may be counted only with prior approval of the department chair. Prereq, 101, or 130 and 160.
310/510. Experimental Genetics. 2 or 3 cr . Experimental techniques used in cellular, organismic, and population genetics. One hr lec, three to five hrs lab per wk. Prereq. 210 or con reg.
311/511. Organic Evolution. 3 cr . Origin and evolution of the Bios. Prereq. 101; or 130 and 160 .
314/514. Cell Biology. 4 cr. Structure and function of cells and organelles, including membrane structure and transport; biogenetics of mitochondria and chloroplasts; cell motility; DNA replication; protein synthesis and transport; mitosis; meioses; cytokinesis; laboratory techniques including gel electrophoresis; phase-contrast microscopy, spectrophotometry; respirometry; radioisotope analysis, cell culture, chromosome banding; bacterial DNA transformation. Three hrs lec, three hrs lab per wk. Prereq. 130, 160, Chemistry 106 or 116 .
64. Human Genetics and Eugenics. 3 cr. Principles of heredity and variation with some emphasis on social and ethical implications. Not open to students majoring or minoring in biology. Credit may not be earned in both 210 and 318.
65. Aging. 2 cr. Aging among plants and animals with special reference to human senescence. Causes of aging and death as well as medical and other advances which increase longevity will be considered, Concurrent registration in Physical Education for the Exceptional Individual 319 is strongly recommended. Prereq: 130 or cons instr and 160 or 101 .
320/520. Biological Technique. 4 cr. Preparation of plant and animal tissues, organs, and entire organisms for microscopic and macroscopic study. Two hrs lec, four hrs lab per wk. Prereq: 101 , or 130 and 160.
322/522. Museum Methods. 3 cr. Preparation, utilization, and care of natural history materials for research and exhibition, preparation of educational programs for museums, nature centers, and schools; for teachers and those interested in museums or nature center professions. Six hrs lab per wk. Prereq. Cons instr.
326/526. Electron Microscope Techniques. 4 cr. Methods of fixation, embedding, microtomy, and staining of plant and animal tissues for electron microscope examination; operation of the electron microscope and basic photographic darkroom techniques. One hr lec, nine hrs lab per wk. Prereq. Chemistry 106 or 116 , preparation in cellular biology, and cons instr.
66. Genetic Engineering: Implications and Ethics. 3 cr. Basic scientific principles of recombinant DNA research. Applications in medicine and food production. Ethical assessment of the research and the applications. Also offered as Philosophy 327. GDR: TCI BA BS
330/530. Plant Morphology. 4 cr . Form and structure of plants and plant parts, both vegetative and reproductive. Two hrs lec, four hrs lab per wk. Prereq: 101 or 130.
331/531. Plant Anatomy. 4 cr. Internal structures of vascular plants, with special emphasis on development, function, and evolutionary history. Two hrs lec, four hrs lab per week. Prereq: 101 or 130.
333/533. General Bacteriology, 4 cr. Morphology, physiology, classification, and cultivation of bacteria, with consideration of applied phases of bacteriology. Two hrs lec, four hrs lab per wk, Prereq: 101, 130, or 160; and Chemistry 106 or 116 . GDR:NS
335/535. Mycology, 4 cr. The taxonomy, morphology, physiology, and ecology of fungi; the role of fungi in disease, industry, decomposition, food production, and biological research. Two hrs lec, four hrs lab per wk. Prereq: 130 or cons instr.
337/537. Plant Pathology. 3 cr. Causes, symptoms, spread, and control of plant diseases. Two hrs lec, two hrs lab per wk. Prereq: 130.
338/538. Algology. 3 cr. Taxonomy, morphology, and ecology of algae with emphasis on local species. Two hrs lec, two hrs lab per wk. Prereq: 130.
339/539. Bryology and Lichenology. 2 cr. Taxonomy, morphology, and ecology of bryophytes and lichens with emphasis on local species. One hr lec, three hrs lab per wk. Prereq. 101 or 130.
342/542. Vascular Plant Taxonomy. 3 or 4 cr. A survey of the major groups with emphasis on identification,
classification, and phylogeny of flowering plants. Two hrs lec and two or four hrs lab per wk. Prereq: 101 or 130.
344/544. Trees and Shrubs. 3 cr . Identification of woody plants, native and cultivated, in summer and winter conditions; methods of vegetative propagation; their use for landscaping and wildlife food. One hr lec, four hrs lab per wk (some field trips). Prereq: 101 or 103.
345/545. Agrostology. 2 cr . Structure, identification, classification, and evolution of grasses and grass-like plants. One hr lec, two hrs lab per wk. Prereq: 101 or 130.
346/546. Essentials of Horticulture. 3 cr. Propagation, culture, improvement, and storage of flowers, fruits, ornamentals, and vegetables. Two hrs lec, three hrs lab (field trips) per wk. Prereq: 130.
347/547. Aquatic Vascular Plants. 2 cr. Taxonomy and ecology of aquatic vascular plants with emphasis on local species of freshwater angiosperm. One hr lec, two and onehalf hrs lab per wk. Prereq: 101 or 130.
351/551. Plant Physiology. 4 cr. Plant-soil-water relations, transport, mineral nutrition, plant biochemistry, and the environmental and hormonal control of plant growth and development. Three hrs lec, three hrs lab per wk. Prereq: 130; Chemistry 106, 116.
355/555. Plant Ecology. 2 cr. Plant adaptations and responses to environmental variation; structure, microenvironments, and succession of plant communities. Prereq: 305 or cons instr. Con reg in 307 or 356 (labs). recommended.
356/556. Plant Community Sampling and Analysis. 1 cr . Design and execution of vegetation studies as affected by objectives, time constraints and community type. Four hrs lec-lab per wk for eight wks, plus individual project. Prereq: 305 or 355 or con reg, or cons instr.
357/557. Principles of Plant Community Distribution. 1 cr . Ecological survey of world vegetation, relating community form and composition to prevailing climate, soils, and past environmental change. Prereq: 308 or 355 or con reg, or cons instr.
385/585. Animal Feeding Ecology. 1 cr. Environmental and biotic influences on quantity and quality of foods; food selection and niche relationships. Prereq: 305 or cons instr.
360/560. Invertebrate Zoology. 4 cr . Structure, function, classification, and life history of each of the major groups of invertebrate animals (exclusive of the insects and parasitic vertebrates). Two hrs lec, four hrs lab per week. Prereq: 101 or 160.
361/561. Aquatic Invertebrate Zoology. 3 cr . Collection and identification of lotic and lentic freshwater invertebrates (exclusive of insects and parasites) with emphasis on Wisconsin species. Two hrs lec, two hrs lab per wk. Prereq: 101 or 160.
362/562. 4 cr. Animal Parasitology. 4 cr. Structure, classification, and life histories of animal parasites. Two hrs lec, four hrs lab per week. Prereq: 191 or 160 ,
367/567. General Entomology. 4 cr. Structure, classification, and natural history of insects, with practice in collecting, mounting, and identification. Two hrs lec, four hrs lab per wk. Prereq: 101 or 160.
370/570. Comparative Vertebrate Anatomy. 4 cr . Structure and evolutionary relationships of vertebrates. Two hrs lec, four hrs lab per week. Prereq: 160.
371/571. Embryology. 4 cr. Early embryology of
vertebrates and development of organ systems. Two hr lec, four hrs lab per wk. Prereq: 160.
372/572. Biology of the Vertebrates. 1 to 4 cr .
Classification, identification, and natural history of the vertebrates. Offered in 1 -credit modules with the following titles: (1) Reptiles and Amphibians, (2) Fish, (3) Birds, (4) Mammals. One-half hr lec, one hr lab per week per module. Credit may not be earned in both the module and the corresponding vertebrate course $(374,376,377,378)$.
$373 / 573$. Histology. 4 cr . The microanatomy and related function of vertebrate (primary mammalian) organs, tissues, and cells. Two hrs lec, four hrs lab per wk.
Prereq: 160; Chemistry 105 and 106, or 115 and 116. (Biology 281 is strongly recommended but not required.)
374/574. Ichthyology. 4 cr . Classification and natural history of fishes, with emphasis on food, game, and forage fishes found in Wisconsin. Two hrs lec, four hrs lab per week. Prereq: 101 or 160.
375/575. Life History and Population Dynamics of Fishes. 3 cr . Study and analysis of reproduction, recruitment, growth, mortalilty, survival, habitat, food production, and population of fishes. Two hrs lec, three hrs lab per wk. Prereq: 374/574 and cons instr.
376/576. Herpetology. 3 cr. Reptiles and amphibians; research methods and identification of species found in North America. Two hrs lec, three hrs lab per week. Prereq: 101 or 160.
377/577. Ornithology. 3 cr . Avian taxonomy, morphology, life histories, ecology, and research methods, with emphasis on identification of orders of birds of the world, and of local species. Two hrs lec, three hrs lab per week. Prereq: 101 or 160.
378/578. Mammalogy, 3 cr . Taxonomy, zoogeography, life history, and ecology of mammals; field work. Two hrs lec, two hrs lab per week.
379/579. Field Zoology. 3 cr. Field trips; collection, preparation, and identification of animals. One hr lec, four hrs lab per week. Prereq: 101 or 160.
382/582. Endocrinology of Mammals. 3 cr. Anatomy and physiology of major endocrine glands, primarily in mammals; hormonal control systems; biosynthesis, transport, and molecular actions of hormones; common endocrine diseases; current laboratory assay methods; current advances in hormone research. Prereq: 281 or 285 or 281 ; Chemistry 106 or 116 ; organic chemistry is recommended, but not required.
384/584. Animals and Environment. 1 cr. Morphological, physiological, and behavioral adaptations and responses to the physical environment. Prereq: 305 of cons instr.
386/586. Ecology of Reproduction in Vertebrates. 1 cr. Roles of environment, nutrition, and social factors in breeding, production, and survival of young. Prereq: 305 or cons instr.
388/588. Animal Behavior. 3 cr . A comparative approach to the study of animal behavior; description, classification, analysis, and evolution of behavioral patterns of vertebrates, with emphasis on social behavior and underlying mechanisms. Two hrs lec, three hrs lab per wk; individual term project. Prereq: 160.
399/599. Independent Studies. 1 or 2 cr . Upperclass students may arrange for advanced work (including field and laboratory work where appropriate) not covered in regular courses. Categories of work include (1) Research; (2) Collection and Identification of Plants or Animals, (3)

Advanced Readings, and (4) Biological Methods. Prereq: Consent of appropriate faculty member and of the chair.
405/605. Ecology of Predators and Prey. 3 cr. Discussion of selected readings on the biology and ecology of predators and their prey. Prereq: 205 or cons instr.
425/625. Problems in Quantitative Biology. 2 cr. Selected problems in quantitative biology and independent projects involving analysis of data obtained in the student's field of interest. One hr lec, three hrs lab per week. Prereq, 130 and 160 , Mathematics 120 recommended.
490/690. Seminar. 1 cr. Studies and discussions of biological problems.
498/698. Selected Topics in Biology. 1 to 3 cr. Major concepts in an area of biology. A subtitle will be added each time the course is offered, Distribution of lab and lec hrs will vary according to topic. May be repeated under different subtitles. Prereq: Variable according to topic.
705. Advanced Ecology. 3 cr. Population and community ecology and measurements of the effect of environment on organisms. Two hrs lec, three hrs lab per week. Prereq: 205 or equiv.
710. Advanced Genetics, 4 cr. Genetic analysis of selected organisms; transmission, function, and mutation of genes; radiation and genes; quantitative inheritance and population genetics. Two hrs lec, four hrs lab per wk. Prereq, 210 or equiv.
711. Physiological Mechanisms. 4 cr. Respiration, photosynthesis, nitrogen metabolism, and pertinent metabolic pathways as related to current knowledge of cell structure and growth. Three hrs lec, two hrs lab per week. Prereq. 551 or cons instr.

726. Problem Analysis, 2 cr. A specialist will direct investigations of principles and mechanics within the area of his speciality, Lectures will alternate with reports from the participants. This course may be repeated as often as the topic area changes. Prereq. Cons instr.
728. Integrated Biological Concepts. 3 cr. Designed to integrate biology and relate it to other natural sciences, social sciences, and humanities by the exploration of major biological concepts; includes laboratory and field work. Open to experienced teachers who have had an introductory course in biological science and who are not specializing in a biological science.
790. Graduate Seminar. 1 cr. Studies and discussions of biological problems.
796. Independent Study 1 to 3 cr. Planned reading designed to enrich and supplement the student's preparation and mechanics within the area of his specialty. This course may be repeated as often as the topic changes. Prereq: Cons instr.
799. Thesis, 2 to 6 credits.

For more course listings in biology, see the Latent Course List at the end of this section.

## BROAD-FIELD SOCIAL SCIENCE

See Social Science.

## BUSINESS ADMINISTRATION <br> See Business and Economics.

## BUSINESS AND ECONOMICS <br> (College of Letters and Science)

Richard Judy, Associate Dean and Mead of the Division of Business and Economics
Room 477, Collins Classroom Center
Phone: (715) 346-2728
Advising Center, Room 304 CCC.
Charles La Follette, Director
Small Business Development Center, Room 032 Main: George Seyfarth, Executive Director
The Division of Business and Economics offers programs in (1) Business Administration, (2) Economics, and (3) Managerial Accounting.

## BUSINESS ADMINISTRATION

Vance S. Gruetzmacher, Area Coordinator Room 466, Collins Classroom Center Phone: (715) 346-3360
Faculty: J. Carter, Fuchs, Gillo, Gruetzmacher, Haine, Judy, La Follette, Meyers, Poutinen, Ryan, Seyfarth, Yener, Executive-in-Residence, Scholar-in-Residence.
To declare or to be retained as a major or minor in business administration and to be approved for graduation, you must have a minimum 2.50 cumulative GPA in required courses (including collateral courses). This requirement applies to all courses taken within the major or minor regardless of any declaration of academic bankruptcy. If you are a transfer student with 56 or more credits, you must have at least a 2.50 GPA in courses that apply to the major or minor.

## Business Administration Major

Requires 63 credits in the following categories:

1. Theoretical and conceptual requirements, 26 credits: Economics 210, 211, 310; Accounting 210, 211; English 251; Computer Information Systems 101, 102, (except for students who are also CIS minors); Mathematics 115-116 or 120.
Premajor courses in the 100 series will normally be taken in the freshman year, and courses in the 200 series in the sophomore year. After you complete these requirements with a 2.50 cumulative GPA, you may petition the division to declare a major in business administration.
The remaining requirements will assume that you have access to, and literacy with, a multi-function calculator for in-class exercises, homework assignments, and examinations involving financial analysis and statistics.
2. Functional competence requirement, 21 credits: (normally in the junior year) Business 330, 340, 350, 360, 370, 380; (and in the senior year) Business 480.
3. Five courses in ONE of the following areas of emphasis, 15 credits. Note that required courses are marked with an asterisk (*):
a. Finance: Business 352*, 353*; Economics 360*; Accounting 310*; Business 381, 391; Accounting 311, 330; Economics 311, 365, 453.
b. Management: Business 384*, 385*, 386*, 381, 387, 391; Economics 328, 345, 346, 453.
c. Management Information Systems: Computer Information Systems 315*, 319*, 352*; Accounting 320*; Business 352, 381, 391; CIS 331, 333, 335.
d. Marketing: Business 331*, 337*, 338*, 438*, 336, 339, 381, 391, 433, 435, 436; Economics 453.
e. Real Estate and Insurance: Business 343*, 344*, 345*, 347*, 336, 337, 341, 381, 391.
A senior seminar in management taught by a retired chief executive officer of a major corporation is offered as part of the business administration curriculum. Seniors majoring in accounting, economics, or business administration are eligible to apply for this seminar.
Business practicum for junior and senior business administration majors offers hands-on experience working in a business environment. Each internship is tailored to the individual student.

## Business Administration Minor

Requires 24 credits:

1. Required courses: Accounting 210, 211; Economics 210, 211; Business 380.
2. Electives: A minimum of 9 credits from Business 330, 340, 350, 360, 384, 385; Economics 310, 453. (Business 336, 337, 338, 433 and Economics 372 may be elected by fashion merchandising majors ONLY; Computer Informations Systems 110 and 112 may be elected by forestry majors ONLY.)

## ECONOMICS

Lawrence A. Weiser, Area Coordinator
Room 230C, Collins Classroom Center
Phone: (715) 346-3310
Faculty: Christie, Cray, Fan, Jacobsen, Palmini, Sullivan, Weiser.
In order to declare a major or minor in economics, to be retained as a major or minor, and to be approved for graduation, you must have a minimum 2.00 cumulative

GPA in required courses ( 2.75 to student teach), including collateral courses. This requirement applies to all courses taken within the major or minor regardless of any declaration of academic bankruptcy. If you are a transfer student, you must have at least a 2.00 GPA in courses that apply to the major or minor.

## Economics Major

Requires 38 credits in the following categories:

1. Theoretical and institutional requirements, 15 credits: Economics 210, 211, 310, 350, 361.
2. Quantitative course requirements, 4 credits: Mathematics 115-116, or 116-117, or 120 .
3. Additional elective courses, 18 credits: additional courses in economics selected according to your interest area.
The minimum acceptable grade for course credits in the major is a "C-." If you are not achieving the minimum acceptable grade, you can retake the course once to try to earn an acceptable grade.
We advise economics majors to take the following courses as additional electives: Accounting 210, 211; Computer Information Systems 101, 102; History 320, 371, or 383; Philosophy 304.
If you plan to pursue graduate work in economics, we advise you to take Mathematics 120 and 121 in place of 115 and 116.
If you seek teacher certification in economics, a minimum of 34 credits must be in courses designated "Economics." History 211 and 212 are recommended as electives or in partial fulfillment of the general degree requirements. An additional legislative requirement is Natural Resources 370.

## Economics Minor

Consists of 17 credits in economics courses, including Economics 210, 211, and 310. A minor for teacher certification requires 22 credits- 5 in addition to those above. History 211 and 212 are recommended as electives or in partial fulfillment of the general degree requirements.

## MANAGERIAL ACCOUNTING

William Love, Area Coordinator
Room 236, Collins Classroom Center
Phone: (715) 346-3360
Faculty: Burnes, Dunigan, Jackson, Love, Palmer, Tumer. In order to declare a major in managerial accounting, you must have a cumulative GPA of 2.50 in Accounting 210 and 211. To be retained as a major and to be approved for graduation you must have a minimum 2.50 cumulative GPA in required courses (including collateral courses). This requirement applies to all courses taken within the major regardless of any declaration of academic bankruptcy. If you are a transfer student with 56 or more credits, you must have at least a 2.50 GPA in the courses that apply to the major.

## Managerial Accounting Major

Consists of 66 credits in the following categories:

1. Required basic core courses, 30 credits: Accounting 210, 211; Business 330, 340, 350, 370, 380; Economics 210, 211, 310 or Mathematics 355.
2. Required support courses, 10 credits: English 251; Computer Information Systems 101, 102; Mathematics 115-116 or 120.
3. Required accounting courses, 19 credits: Accounting 310, 311, 313, 320, 321, 330, 400.
4. Controlled electives, 9 credits (two courses from the following): Accounting 312, 331, 340; Business 341, 360, 386, Economics 453.
If you wish to pursue a career in accounting as a certified public accountant (CPA), consult the accounting area coordinator when you enroll at UW-Stevens Point.

## Courses in Accounting

210. Introductory Financial Accounting. 3 cr. Principles, concepts, and procedures of financial accounting essential to the preparation, understanding, and interpretation of accounting information, Prereq, So st.
211. Introductory Managerial Accounting. 3 cr. The decision-making process using managerial accounting information; cost-volume-profit analysis, cost accounting systems, budgeting, and performance evaluations. Prereq. 210 or cons accounting area coordinator.
212. Special Work. Cr arranged. Underclass students may, by agreement with the accounting area coordinator, arrange for special out-of-class work. Credit will be determined by the division head upon recommendation of the area coordinator.
213. Intermediate Accounting I. 3 cr. Concepts and procedures relating to cash, receivables, inventories, current liabilities, and fixed and intangible assets. Prereq: 211.
214. Intermediate Accounting II. 3 cr. Concepts and procedures relating to long-term liabilities, investments, stockholders' equity, pensions, leases, income tax allocation, accounting changes, and financial statement analysis. Prereq 310 .
215. Advanced Accounting. 3 cr. Financial accounting applied to specialized fields including partnerships, home office and branch, mergers, consolidation, parent and subsidiaries, other specialized topics. Prereq. 310.
216. Auditing. 3 cr . The auditing environment, the audit process, audit procedures and auditor's communications.
Prereq: 311, Economics 310, Computer Information Systems 101, 102.
217. Cost Accounting 1. 3 cr. Concepts and objectives of cost accounting; cost accounting information systems; cost accumulation and allocation procedures for job order costing, process costing, and joint products; planning and control of materials, labor and factory overhead. Prereq: 211, Mathematics 115-116 or equiv.
218. Cost Accounting 11. 3 cr. Planning, control and analysis of production and marketing costs through budgeting and standard cost accounting techniques, cost and profit analysis; quantitative methods applied to cost data; capital expenditures. Prereq: 320.
219. Income Tax Accounting I. 3 cr. Federal income tax provisions that apply principally to individuals and sole proprietorship businesses. Special emphasis on tax research procedures and techniques plus case writing. Practical tax return preparation methods and techniques. Prereq: 211.
220. Income Tax Accounting II. 3 cr. Federal income tax provisions that apply to partnerships, corporations, estates and trusts, gift taxation and tax administration. Special emphasis on tax research and case writing. Tax planning considerations and techniques as related to these entities. Practical tax return preparation methods and techniques. Prereq: 330.
221. Fund Accounting. 3 cr. Accounting for government and not-for-profit organizations; budgetary accounting, appropriations, and encumbrances. Prereq, 310.
222. The Accounting Profession. 1 cr. History and development of the accounting profession; professional employment, conduct, organizations, ethics, mores, and publications.
223. Special Topics in Managerial Accounting. Cr arranged. Topic will be announced in the timetable.
224. Internship in Accounting. Cr arranged. Supervised training work program in a cooperating agency or business.
225. Special Work. Cr arranged. Upperclass or graduate students may, by agreement with the division head, arrange for special out-of-class work. Credit will be determined by the division head upon the recommendation of the accounting area coordinator.

## Courses in Business

100. Introduction to Business. 3 cr . Overview of business and enterprise; functional descriptions of accounting and finance, marketing, management, human resources, and issues of today's business organizations.
101. Special Work. Cr arranged. Underclass students may, by agreement with the business administration area coordinator, arrange for special out-of-class work. Credit will be determined by the division head upon recommendation of the area coordinator.
102. Marketing, 3 cr. Study of marketing theories and concepts used in the application of marketing strategies in product development, distribution, pricing, and promotion of goods and services. Prereq. Approved major or minor, or cons instr.
103. Marketing Research. 3 cr, Objectives and methodologies of acquiring data in order to make intelligent marketing decisions; formulation of the research plan, sampling, collection methods; data analysis, interpretation, and application. Prereq, 330, English 251.
104. Sales Management. 3 cr . The sales force and its role in the execution of marketing strategy in planning, organizing, and controlling the sales function. Prereq: 330 .
105. Buyer Behavior. 3 cr. Concepts from psychology, sociology, anthropology, and other behavioral disciplines, analyzed to develop the student's ability to understand and predict reactions of individuals and groups to marketing decisions. Prereq: 330.
106. Marketing Management. 3 cr . The role of the marketing manager in business, with emphasis on decisionmaking and problem-solving activities. Prereq. 330.
107. International Marketing. 3 cr. Examines international differences in applying marketing concepts to culture, business customs, political and legal environments, trade mechanics, and market behavior when developing marketing strategies, and looks at how world trade practices work. Prereq: 330.
108. Business Law 1. 3 cr . History of legal development, contracts, agency, sale of goods, insurance. Prereq. Approved major or minor.
109. Business Law II. 3 cr. Commercial paper, real estate and personal property, partnerships, corporations, bankruptcy. Prereq: 340 or cons instr.
110. Principles of Insurance. 3 cr. For the nonspecialist: the history of insurance, basic definitions and terminology, the fields of insurance and types of carriers, the insurance contract, the planning and purchase of insurance.
111. Principles of Real Estate: Law and Management, 3 cr. Real estate law as related to purchase and sale transactions, construction and development, and landlord-
tenant relationships; survey of urban growth patterns, appraisal analysis, mortgage risk and real estate investment analysis. Prereq: $\mathbf{3 4 0}$ or cons instr.
112. Principles of Real Estate: Marketing, Finance, and Valuation. 3 cr. Principles of land use, construction, estimating a listing price, aspects of mortgage financing, real property management, real estate office procedures, advertising property for sale, service and responsibilities to clients, providing property information and disclosure, and applied aspects of the listing and the offer to purchase contract.
113. Life and Health Insurance. 3 cr. Life, health,' and annuity contracts from the viewpoints of the individual, business, government, and insurance company; policy types, rate-making, regulation, group insurance; life insurance and estate planning to be included in the real estate and insurance area of emphasis. Prereq: 343 or cons instr.
114. Principles of Finance. 3 cr . Business units, especially corporate, in present day enterprise; financial principles applicable to their operation, Prereq: Approved major or minor, or cons instr.
115. Financial Management. 3 cr . Major aspects of financial decision-making, primarily by the use of the case method; profit planning, financial budgeting, investment descisions, cost of capital, valuation, and management of circulating capital. Prereq: 350 .
116. Investments. 3 cr . Construction and management of investment portfolios in order to meet the needs of personal and institutional investors; selection of securities in order to balance income, risk, and capital growth. Prereq: 350.
117. Production-Operations Management. 3 cr. Utilization of management science techniques such as facility layout, process planning, work measurement, inventory control, scheduling, quality control, and operations simulation; qualitative approaches to the solution of operational problems. Prereq: 380; Economics 310; Mathematics 115 116 or equiv.
118. Management Information Systems. 3 cr. Principles and problems of systems design; identification, evaluation, and modification of information flows; organizational considerations, internal control procedures; systems for the operating functions of business; total information systems. Prereq: Approved major or minor, or cons instr.
119. Principles of Management. 3 cr. Theory of management, managerial functions, departmentalization, staffing, direction, planning, and control. Prereq: Approved major or minor, or cons instr.
120. Entrepreneurship. 3 cr . Entrepreneurship as well as intrapreneurship is an integral component of management activity. Emphasis will be on risk-taking, decision-making, marketing, finance, personal selection, record keeping, taxes, and controls which are unique to the entrepreneurialtype organization and the entrepreneur-manager. Prereq: 380 or cons instr.
121. Personnel Relations. 3 cr. Principles, policies, and practices applicable to personnel problems in dealing with staffing, training, wages, labor relations, communications, Prereq: Economics 380.
385/585. Organizational Behavior. 3 cr. Human behavior in the world of work; power, authority, rules, status, norms, leadership, communication, motivation, group processes, and conflict management; environment of workplace and work itself. Prereq: 380.

386/586. Organization Theory and Design. 3 cr . Organizational structure, technology behavior, and environment within a macrotheoretical framework; the organization as the unit of analysis; nature of structural design process, modeling, and interorganizational networks studied with applied analysis. Prereq: 385 .
387/587. Organizational Development. 3 cr . Problems of implementing change in organizations; roles of external and internal change agents; organizational problems diagnosed and treated with appropriate technique such as team building, motivation training, and job enrichment; results examined by measuring relevant variables. Prereq: 385.
391. Small Business Management Consulting Practicum. 3 cr. Research and analysis for small business operations. Work in teams with an area business on a particular management concern in the form of a business case; written and oral presentation to the business client. Prereq: Cons instr.
433. Advertising Management. 3 cr . Strategic, creative, and financial issues in advertising; emphasis on the business side of advertising: developing strategies, media, market orientation, and the creation of an advertising plan. Prereq: 330 .
435. New Product Marketing, 3 cr. Assessing the environment, resources of the firm, and the competitive nature of the industry in which a firm operates. Understanding product portfolio concepts, determining the new product needs of the firm, and developing marketing. strategies necessary to help new products become successful. Prereq: 331, 338.
436. Marketing Simulation. 3 cr . Simulated competitive marketing environment where teams compete and performance in the simulated environment is monitored and evaluated. Use of the latest sophisticated computerassisted marketing simulation which makes use of numerous decision variables which determine performance. Prereq: 331, 338.
438. Marketing Strategies. 3 cr . Study of actual and case marketing situations to analyze and solve problems of marketing strategies and to learn how to develop marketing strategies that operationalize market opportunities. Prereq: 331, 338.
480. Strategic Management. 3 cr . Advanced course in business administration using the case method to develop problem-solving approaches to complex management problems. Prereq: Graduating business administration major or cons instr.
490. Special Topics in Business Administration. Cr arranged. Topic will be announced in the timetable.
497. Internship in Business Administration. Cr arranged. Supervised training work program in a cooperating agency or business.
499. Special Work. Cr arranged. Upperclass or graduate students may, by agreement with the division head, arrange for special out-of-class work. Credit will be determined by the division head upon the recommendation of the business administration area coordinator.
796. Special Work. Graduate students may, by agreement with the division head and the adviser, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project.

## Courses in Economics

100. Introduction to Economies. 3 cr. Survey of contemporary economic concepts and problems including their historical development; analysis of individual and aggregate economic issues such as unemployment, inflation, energy, taxation, and monopoly. This course may be used in partial fulfillment of the social science requirement for a degree, but cannot be substituted for Economics 210 or 211 in satisfaction of the business administration major nor be counted toward an economics major or minor.
GDR:SS1
101. Environmental Economics. 3 cr. The economics of environmental control; externalities, public goods, social costs, and their effects on the market system; related problems such as urban development and economic growth. Prereq: So st. GDR:SS2
102. Principles of Economics 1. 3 cr. Character and scope of economics; the elements of supply and demand; the measurement and determination of national income; macroeconomics; money and banking; povetty, and income maintenance, Prereq: So st, and Mathematics 100 or equivalent. GDR:SS1
103. Prineiples of Economics II. Microeconomics; theory of distribution, market structure and performance, international trade, and the balance of payments. Prereq: 210. GDR:SSI
104. Special Work, Cr arranged, Premajors in economics may, by agreement with the economics area coordinator, arrange for special out-of-class work. Credit will be

determined by the division head upon the recommendation of the area coordinator.

## 310. Statistical Methods for Business and Economic

Analysis. 4 cr . Sources of business and economic data.
Statistical techniques for analysis of business and economic problems, including averages and dispersion, basic probability theory, sampling and hypothesis testing, correlation regression analysis, analysis of times series and use of index numbers. Computer program for statistical analysis will be used. Effective presentation of statistical data. Prereq. Economics 210 ; Math 115 and 116 or equiv.
311. Public Finance. 3 cr. Impact of federal, state, and local budgets on the economy; analysis of government expenditures and taxation. Prereq: 211. GDR:SS1
315. Business and Government. 3 cr. Rationale for a governmental role in the economy, evaluation of market solutions vs. government regulation of business. Prereq: 211.
328. Poverty, Welfare, Social Insurance. 3 cr . Poverty in the United States; income maintenance programs including social security, unemployment insurance, worker's compensation, pension plans, and social assistance, health insurance. Prereq: 210 or cons instr. Credit may not be earned in both Economics 328 and Sociology 328.
GDR:SSI
345. Labor Problens. 3 cr. Employer employce relationships, characteristics of labor markets, types of labor organizations and employer organizations; industrial disputes and devices for effecting settlements, collective bargaining and labor legislation, GDR:SSI
346. Collective Bargaining, 3 cr Organizing and negotiating, content of collective bargaining, bargaining in public and private employment, the laws of collective bargaining. Prereq. 345 or cons instr.
350. Microeconomic Theory, 3 cr. Contemporary microeconomic theory, including consumption, production, pricing, and resources allocation. Prereq: 211.
360. Money and Financial Markets, 3 cr Depository institutions, central banking and money creation; price-level analysis; interest level determination, interest-rate theory; money and capital markets. Prereq. 210.
361. Macroeconomic Theory, 3 cr. Determination of levels of national income, output, employment, and prices; national income accounting; theory and measurement of aggregate consumption and investment, government stabilization policy. Prereq. 211.
362. Economic Development. 3 cr. The stages of economic growth; study of economic conditions and policy in the underdeveloped and intermediately developed national economies, Prereq. 211.
365. International Economics. 3 cr. Foreign trade, theory and measurement of export and import patterns; foreign exchange markets, balance of payments, tariffs, and the contemporary international monetary system. Prereq 211.
367/567. Comparative Economic Systems, 3 cr. Analysis and appraisal of the structure and function of diverse cconomic systems, such as capitalism, socialism, communism, and their modifications. Prereq: 210.
372. Consumer Economics. 3 cr. Econonics for the consumer, the art of consumer decision-making, issues affecting consumer spending, saving, and investing, the role of cooperatives and other institutions concerned with consumer welfare. Credit may not be earned in both Economics 372 and Human Development 372.
453. Managerial Economics. 3 cr . Application of price theory and economic theory of the firm to business management decisions; use of microeconomics and macroeconomics in forecasting for business policy. Prereq: 201, 330; Mathematics 115-116 or equiv.
454. Applied Economics. 3 cr. Techniques for analyzing and presenting economic data, utilizing economic principles in a case study framework and applying economic reasoning to current business and government issues. Prereq: 211, 310.
490. Special Topics in Economics. Cr arranged. Topic will be announced in the timetable.
497. Internship in Economics. Cr arranged. Supervised training work program in a cooperating agency or business.
499. Special Work. Cr arranged. 'Upperclass or graduate students may, by agreement with the division head, arrange for special out-of-class work. Credit will be determined by the division head upon the recommendation of the economics area coordinator.
756. Current Economic Problems. 3 cr. National and international economic policies in the light of commonly accepted social goals, such as efficient use of resources, stability of income and employment, equitable distribution of income, decentralization of power, personal security, freedom of choice, and peaceful and mutually beneficial international relations.
For more course listings in economics, see the Latent Course List at the end of this section.

## CAMP AND YOUTH AGENCY ADMINISTRATION AND PROGRAMMING

See Natural Resources for the minor or Natural Resources-Resource Management for the option called Youth Programming and Camp Management.

## THE CENTER PROGRAM

See Education.

## CHEMICAL ENGINEERING

Several courses for students planning to transfer to a program in chemical engineering have been approved by the faculty. For information, consult the chair of the Chemistry Department.

## CHEMISTRY

(College of Letters and Science)
Jack K. Reed, Chair
Room D129A, Science Building
Phone: (715) 346-2888
Faculty: Andrews, Badger, Bondeson, Brummer, Chitharanjan, Droske, Farnsworth, E. Johnson, Lang, Claudine Long, Marshall, Radtke, Reed, D. Rogers, Showalter, Gary Shulfer, Sommers, Steinpreis, K. Taft, Thurmaier, Weaver, Wright.

## Chemistry Major

Consists of a minimum of 35 credits including:

1. Chemistry 248, 325 (see note 1 ), 326, $328,335,336$, 395, and 496; and at least 8 credits chosen from 329,

338 ( 2 credits), $346,365,425,435,445,455,458,468$, 475 including 338 ( 2 credits), or 346 or 445.
2. Collateral requirements include Mathematics 120, 121, 222; Physics 150, 250.

## Chemistry Major for Professional Certification by the American Chemical Society

Consists of a minimum of 42 credits including:

1. Chemistry 248, 325 (see note 1 ), 326, 328, 329, 335, $336,346,395,455$, and 496; and at least 6 credits chosen from 338 ( 2 credits), $399,425,435,445,458$, 475. (One chemistry course in this group must have laboratory work associated with it. One advanced course in another science or mathematics may be substituted for one of the chemistry courses in this group with the approval of the chair.)
2. Collateral requirements include Mathematics 120,121 , 222; Physics 150, 250. A reading knowledge of a foreign language, especially German, is strongly recommended.

## Chemistry Major for Teacher Certification Consists of either major described above.

If you wish to major in chemistry, you must register for acceptance to the major through the Chemistry Department Office no later than the first semester of your junior year. To be accepted and retained as a chemistry major and to be approved for graduation, you must have a minimum grade point average of 2.00 ( 2.75 to student teach) in courses required for the major. These requirements apply regardless of a declaration of academic bankruptcy. Exceptions concerning academic bankruptcy may be granted by the department.
You can apply a maximum of one grade below a " C " ("C-" is a grade below "C.") in chemistry courses numbered 300 or above toward the major. You may petition the department chair for consideration if you don't meet these standards.

## Chemistry Minor

Consists of 23 credits, including no more than 10 credits of 100-level courses: 220 ( 4 credits) or 325, 326, 328 (8 credits); 248 ( 3 credits); and a minimum of 4 credits of 300 -level courses. Additional courses are to be selected from $260,329,330$ or $335,338,340,365,395$.
The objective of a minor in chemistry is to provide students with a knowledge of introductory and intermediate chemical principles and to have them acquire sufficient technical skills to perform capably in a modern chemical laboratory.
To minor in chemistry, register for acceptance to the minor in the Chemistry Department during your junior year. A minimum grade point average of 2.00 ( 2.75 to student teach) in chemistry courses is required, regardless of a declaration of academic bankruptcy. Exceptions concerning academic bankruptcy may be granted by the department.

## Notes:

1. For chemistry majors the normal prerequisite for Chemistry 325 is Chemistry 115 and 116 . With the consent of the department chair, you may substitute Chemistry 105 and 106 for 115 and 116.
2. Several of the chemistry courses listed below are designed as service courses or for nonchemistry majors. They do not count toward the chemistry major. In the case of such courses numbered 300 and over, the course description includes this restriction.
3. You can replace a grade of " $F$ ' in a 100 -level chemistry course with a subsequent grade in another 100 -level chemistry course if you have the consent of the department chair. (See Repeating Courses section.) In special cases you can replace a " $D$ "' in Chemistry 115 with a subsequent grade in 105 if you first get authorization from the Student Assistance Center.
4. You cannot receive credit toward graduation for a course after you have already completed a more advanced or similar course in the same area. The following restrictions hold:

| A student who has received credit for | cannot receive credit for |
| :---: | :---: |
| 100 | 101 |
| 101 | 100 |
| 105 | 100, 101 |
| 115 | 100, 101, 105*, 106 |
| 325 | 220 |
| 335 | 330 *See note 3 . |
| 346 | 340 |
| 365 | 260 |
| 445 | 340 |

5. If your program requires one year of introductory chemistry with laboratory, you should take Chemistry 114 concurrently with 115 .

## Courses in Chemistry

100. Appreciation of Chemistry. 3 cr. Selected principles of chemistry, emphasizing the relation between chemistry and modern society. Two hrs lec, two hrs lab per week. This course can be applied toward the general requirements for a degree, GDR:NS
101. Basic Chemistry. 5 cr. For students who desire only one semester of college chemistry. Introduction to atomic and molecular structure; bonding, stoichiometry, descriptive chemistry of both inorganic and organic compounds; selected topics in environmental and consumer chemistry. Three hrs lec, one hr disc, three hrs lab per wk. (See notes 3 and 4.) (I, II) GDR:NS
102. Essentials of Chemistry. 2 cr. To help students with an inadequate background prepare for 105. Inorganic nomenclature, chemical calculations, acids, bases, oxidation and reduction. Does not apply toward the natural science requirement for a B.A. or B.S. degree. One hr lec, one hr disc per wk. Prereq: Mathematics 51 or placement in 100 or above. (1, II)
103. Fundamental Chemistry. 5 cr . For students who desire one year of college chemistry. Fundamental principles and theories of chemistry; stoichiometry; nuclear chemistry; thermochemistry; atomic structure and bonding, descriptive chemistry of the nontransitional metals. Three hrs lec, one hr disc, three hrs lab per wk. Prereq. Mathematics 51 or placement in 100 or above. (See notes 1, 3, and 4.) (I, II) GDR:NS
104. Fundamental Chemistry. 5 cr. Continuation of 105. Equilibria; chemical kinetics; acids and bases; electrochemistry; thermodynamics; descriptive chemistry of nonmetals and transition metals; qualitative analysis; organic chemistry. Three hrs lec, one hr disc, three hrs lab per wk. Prereq: 105. (See notes 1 and 4.) (I, II) GDR:NS
105. General Chemistry Laboratory. 1 cr. For students enrolled in 115 who desire introductory laboratory work, particularly for those with little or no lab experience. Three hrs lab per wk. Prereq: Con reg in 115. (See note 5.) (I, II) GDR:NS
106. General and Quantitative Chemistry. 4 cr. Laws and principles of chemistry; atomic structure; formulas and equations; stoichiometry; and chemical equilibria. Three hrs lec, one hr disc per week. Prereq. One yr of high school chemistry with grade of " C " or better; Mathematics 102 or placement in 106 or 108 or higher. (See notes 1,3 , 4, and 5.) (I, II) GDR:NS
107. General Quantitative Chemistry. 4 cr. Continuation of 115. Two hrs lec, one hr disc, three hrs lab per wk. Prereq: 115. (See note 1.) (I, II) GDR:NS
108. Survey of Organic Chemistry. 4 cr. A systematic survey of the compounds of carbon for students needing only one semester of organic chemistry. Three hrs lec, three hrs lab per wk. May not be counted toward the major in chemistry. Prereq; 106 or 116 . (See note 4) (1,11)
109. Quantitative Analysis. 3 cr. Theory and methods of quantitative chemical analysis. One hr lec, six hrs lab per wk. Prereq: 106 or 116 ( 1, II)
110. Elementary Biochemistry. 4 cr. Introduction to the structure and cellular reactions of the primary constituents of living cells; for students with limited preparation in organic chemistry. Three hrs lec, three hrs lab per wk. Not to be counted toward the major in chemistry. Prereq: 220; or 326 and 328. (See note 4.) (II)
111. Organic Chemistry. 3 cr. An integrated study of the compounds of carbon. Prereq: 116; or 106 and cons of the chair of the department. (See notes 1 and 4.) (I, II)
112. Organic Chemistry. 3 cr. Continuation of 225 . Prereq: 225. (I, II)
113. Organic Chemistry Laboratory 1. 2 cr. Preparation and analysis of organic compounds; introductory
qualitative analysis. Six hrs lab per wk. Prereq. 326 or con reg. (I, II)
114. Organic Chemistry Laboratory II. 2 cr. Extension of 228. Six hrs lab per wk. Prereq: 326 and 328. (I)
115. Brief Course in Physical Chemistry. 4 cr. Introduction to physical chemistry with emphasis on the "classical" areas including kinetics, thermodynamics, and colloidal phenomena. For students wanting only one semester of physical chemistry; not to be counted toward the major in chemistry. Three hrs lec, three hrs lab per wk. Prereq: 248 , or con reg. Mathematics 117 or 222, or con reg in either; Physics 104 or 202 or 250 or con reg; or cons instr. (See note 4.) (I)
335/535. Physical Chemistry. 3 cr. Atomic and molecular structure, thermodynamics, kinetics. Prereq; 226, and 395 or con reg; Mathematics 222; Physics 250; or cons instr. (I)

336/536. Physical Chemistry, 3 cr. Continuation of 335. Prereq: 335. (II)
338/538. Physical Chemistry Laboratory. 1 or 2 cr. Laboratory work illustrating the principles of physical chemistry. Three or six hrs per wk. Prereq: For 1 credit only: 248,330 , or 335 or con reg in either 330 or 335 ; for a second credit or for 2 credits: 248,336 or con reg in 336. If the course has been taken for 1 credit, it may be repeated for a total of two credits. (1, II)
340. Intermediate Analytical Chemistry. 4 cr. Theory and methods of chemical analysis including instrumental and separation techniques. Two hrs lec, six hrs lab per wk. Not to be counted toward the major in chemistry. Prereq: 248; Mathematics 117 or 120 , or con reg in either; or cons instr. (See note 4.) (II)

346/546. Instrumental Analysis. 4 cr. Instrumental methods of analysis including optical, electrical, and radiochemical methods. Two hrs lec, six hrs lab per week. Prereq: 248; and 336 or con reg. (See note 4.) (II)
$365 / 565$. Biochemistry. 4 cr. The chemistry of the components of living cells, and the nature and mechanism of cellular reactions. Three hrs lec, three hrs lab per wk. Prereq: 248, and 326, 328. (See note 4.) (I, II)
369. Topics in Physiological Chemistry. 2 cr. The chemistry of some human physiological processes with emphasis on topics related to clinical laboratory work. Not to be counted toward the major in chemistry. Prereq: 365; Biology 281 or 285 . (II)
395. Seminar I. 1 cr. The use of the chemical and scientific literature; introduction to the concept of the seminar; student participation in studies, and discussions of current developments in chemistry. Prereq: 326. (I)
399. Special Work. Juniors and seniors majoring or minoring in chemistry may, with the consent of the chair arrange for special research projects, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project.
425/625. Advanced Organic Chemistry. 3 cr. Tiheoretical and physical organic chemistry including reaction mechanisms, quantum mechanical applications, and advanced stereochemistry. Prereq: 336. (I, A)
435/635. Advanced Physical Chemistry. 3 cr . Advanced treatment of quantum chemistry, spectroscopy, statistical thermodynamics, kinetics. Prereq: 336. (I, A)
445/645. Advanced Analytical Chemistry. 3 cr . Theory and applications of complex chemical equilibria and selected methods of analytical separations. One hr lec, six hrs lab per wk. Prereq: 248; and 336 or con reg. (See note 4.)
455/655. Advanced Inorganic Chemistry. 3 cr. Descriptive inorganic chemistry, periodicity of the elements, bonding theories, reaction mechanisms, acid-base theories; and coordination, bioinorganic, and nuclear chemistry. Prereq: 336 or con reg. (II, A)
458/658. Inorganic Chemistry Laboratory. 1 or 2 cr . Advanced preparative techniques; characterization of inorganic compounds, inorganic reaction kinetics; application of radioisotopes to chemical problems. Three or six hrs lab per wk. Prereq: 248; and 455 or con reg. If the course has been taken for 1 credit, it may be repeated for 1 additional credit. (II, A)
468/668. Experimental Biochemistry. 1 or 2 cr . Techniques used in the isolation, characterization, and study of reactions of biochemical compounds. Three or six hrs lab per wk. Prereq: 365. If the course has been taken for 1 credit, it may be repeated for 1 additional credit. (II, A)
475/675. Polymer Chemistry. 3 cr. Chemistry and physics of polymers, including synthesis, characterization, and mechanical properties. Two hrs lec, three hrs lab per wk. Prereq: 248, 328, and 336 or con reg; or 335 and cons instr. (II)
496/696. Seminar II. 1 cr . Student participation in studies and discussions of current developments in chemistry. Prereq: 336, 395; or cons instr. (II)
790. Chemical Education Workshop. 1-4 cr. A subtitle will be added each time the course is offered.
796. Independent Study. 1 to 4 cr. A subtitle will be added each time the course is offered.
For more course listings in chemistry, see the Latent Course List at the end of this section.

## CHILD DEVELOPMENT

See Home Economics for major in early childhood education.

## CHINESE

See Foreign Language.

## COACHING

See Health Promotion/Physical Education.

## COLLOQUIUM <br> (College of Letters and Science)

Faculty: David R. Wrone.
Colloquium gives you the opportunity to acquaint yourself with great ideas developed by mankind and evaluate the theories and practices of the twentieth century in the light of human learning of the past three thousand years. It is a course for reading and discussion.
You don't have to take the courses in numerical order. Each course includes books from the ancient to the current and is sufficiently flexible to meet your needs and interests. Credit in these courses may, with the consent of the department chairs, be used to satisfy some of the requirements in the departments of history, social science, English, and philosophy.
301, 302, 303, 304. Colloquium on Important Books. 2 or 3 cr each. Group reading and discussion of some of the writings of eight different authors from the Greek era to the present. Prereq: Cons instr.


## COMMUNICATION <br> (College of Fine Arts)

Roger Bullis, Associate Dean and Head of the Division of Communication
Room 219, Communication Arts Center
Phone: (715) 346-3409
Faculty: Allen, Bennin, Bullis, Choi, Davidson, Dubiel, Fritz, Haney, Diane Henderson, Houlihan, Ilkka, Jeffers, W. Kelley, Kim, Kokkeler, Moe, Petersen-Perlman, Richard Rogers, Terlip, William Witt.

The Division of Communication offers a single comprehensive communication major. However, working with a faculty adviser, you can prepare for a wide range of communication careers in broadcasting, journalism, public relations, advertising, business, and teaching In addition, many students pursue a communication major as part of personal enrichment in the humanities and liberal arts by taking coursework in film or interpersonal communication studies. You must complete all coursework required for the major and are also expected to acquire strong oral and written communication competencies. The division encourages everyone to participate in one or more of the student organizations which enhances job opportunities upon graduation by providing practical communication experience.
Anyone may declare a major/minor in communication. However, in order to graduate with a major/minor in communication, you must achieve a 2.25 GPA for all communication classes taken. The division will attempt to notify and consult with first semester seniors who are at, or below, a 2.25 GPA. It is your responsibility, however, to know your own GPA status. Grades of " $D \pm$ " or lower will not count toward the major/minor, but will count toward the GPA in the major/minor.

You may receive proficiency referrals based on in-class speaking or writing deficiencies. If you receive two or more oral or written referrals from at least two different faculty members, you will be required to work in the Speaking and Listening Center or the Academic Achievement Center before graduating, until competency is verified by the center director.
The Division of Communication has entrance and retention requirements. Check with the division chair for more information.

## Communication Major

Consists of a minimum of 36 credits in communication courses:

1. Eighteen credits must be in courses numbered 300 or above.
2. Required core: Communication $171,272,373,374$.
3. Communication 101 may not be used to complete the major. Communication majors are advised to take Communication 101 in special 3-credit sections reserved for them.

## Communication Major for Teacher Certification

Consists of a minimum of 42 credits in communication courses:

1. Twenty-one credits must be in courses numbered 300 or above.
2. Required: Core (Communication 171, 272, 373, 374); Communication 211, 217, 151 or $220,221,252,318$, 394.
3. Nine additional credits of elective course work
numbered 300 or above will complete the major for certification.
4. Communication 101 may not be used to complete the major. Communication majors are advised to take Communication 101 in special 3-credit sections reserved for them.
5. This major satisfies certification requirements in the academic area designated Speech by the Wisconsin Department of Public Instruction.**

## Communication Minor

Consists of 24 credits:

1. Communication $171,272,373,374$.
2. Twelve credits of communication electives at least 6 of which must be numbered 300 or above.
3. Communication 101 may not be used to complete the minor.

## Communication Minor for Teacher Certification

Consists of a minimum of 33 credits in communication courses.

1. Twelve credits must be in courses numbered 300 or above.
2. Required: Core (Communication $171,272,373,374$ ); Communication 211, 217, 151 or 220, 221, 252, 318, 394.
3. Communication 101 may not be used to complete the minor.
4. This minor satisfies the certification requirements in the academic area designated Speech by the Wisconsin Department of Public Instruction.**
NOTE: Division policy requires that all students majoring in communication select an approved communication program, have an assigned adviser chosen from among the communication faculty, and receive the adviser's approval of courses prior to registration each semester. New majors and minors should report to the division chair for assignment to an adviser.
**The Professional Education Program is also required. It is described later in this catalog in the Courses of Instruction section titled Education.

## Courses in Communication

Also see Communication Education (next section).
101. Fundamentals of Oral Communication. 2 or 3 cr. Introduction to and application of those principles which lead to an understanding of and facility with practical discourse. GDR:COMM
121. Evolution of Mass Media in America. 3 cr. The growth, regulations, and ramifications of communication media in this country. GDR:HU1
125. Introduction to the Art of Film. 3 cr. Survey and appreciation of film; form and structure; representative types and styles illustrated by creators such as Hitchcock, Welles, Ford, and Eisenstein. GDR:HU1
151. Introduction to Broadcasting. 3 cr . An introduction to the history, economics, social/political constraints, and processes and effects of American broadcasting. GDR:SS2
171. Communication in Civilization. 3 cr. The role of rhetorical and communication theory in shaping culture and civilization from the Greeks through contemporary America. GDR:HU1
211. Introduction to Interpersonal Communication. 3 cr . Investigation of and experience with communication that facilitates the establishment and maintenance of effective personal relationships. GDR:SS2
217. Introduction to Organizational Communication. 3 cr . Investigation of and experience with communication within institutionalized channels. GDR:SS2
220. Introduction to Journalism. 3 cr. Introduction to print and electronic journalism with special focus on issues, structures, functions and effects of the industry. GDR:SS2
221. Basic Journalism: Newswriting and Reporting. 3 cr . Basic newswriting and reporting for newspapers: composition and newsgathering skill, styles and story forms, and copy editing.
230. Introduction to Public Relations. 3 cr. Introduction to theory and practice of public relations; special focus on the public relations campaign.
238. Introduction to Advertising. 3 cr . Introduction to the theory and practice of advertising; special focus on the advertising campaign.
252, Basic Broadcasting Laboratory. 3 cr . Introduction to radio or television production. Typical offerings include: introduction to radio production, television production, electronic field production. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle.
272. Reasoning and Persuasion. 3 cr . The analysis and use of reasoning in persuasive messages. GDR:HU1
299. Special Work. Freshman and sophomore students majoring or minoring in communication, may by agreement with the head of the Communication Division, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project. Prereq: Cons instr.
300/500. Introduction to Communication Research. 3 cr . Types and principles of research in communication; emphasis on interpretation of various research studies and analysis of their implications for the communication field; practice in library and survey research.
311/511. Dialogical Communication and Relationships. 3 cr. Examination of the theory and practice of communication based directly and primarily on genuine regard for the other, as it applies to intimacy in close personal relationships. Prereq: 211.
321/521. Advanced Journalism. 3 cr. News and public affairs writing and reporting, investigative reporting, interpretive writing, and editing. Prereq: 221 or cons instr.
322/522. Communication Graphics Laboratory. 3 cr. Principles of design and their applications in the preparation and production of graphic materials in the communication media industries. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle.
323/523. Journalism Writing Laboratory. 3 cr . Practice in specific forms of journalistic writing. Typical offerings include feature, editorial, sports, science and magazine writing. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle. Prereq: 221 or cons instr.
325/525. Press Freedom and Law. 3 cr . Examination of U.S. laws and regulations relating to freedom of speech and of the press, regulation of advertising, and information gathering and dissemination.
329/529. Topics in Journalism. 3 cr. Special topics in journalism. Typical offerings include new journalism, literary journalism, journalism history, business journalism.

Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle. Prereq: 220 or cons instr.
330/530. Public Relations Laboratory. 3 cr. Training in methods used by institutions to relate to their respective publics. Typical offerings include: public relations campaigns, case studies in public relations, and public relations practicum. Subtitles will be specified each time the course is offered. May be repeated for credit under a different subtitle. Prereq: 230 or cons instr.
336/536. Small-Group Communication Laboratory. 3 cr . Small group communication processes. Typical offerings include: creative problem-solving, family communication, and group discussion. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle. Prereq: Cons instr.
338/538. Advertising Laboratory. 3 cr . Training in methods used by institutions to relate to their respective target markets. Typical offerings include: advertising strategies, media planning, and advertising practicum. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle. Prereq: 238 or cons instr.
340/540. Organizational Communication Theory. 3 cr . The study of communication theory and applications relating to private and public organizations. Analysis of communication research, patterns, and strategy. Prereq: 217.

342/542. Organizational Communication Laboratory. 3 cr . Organizational communication processes. Typical offerings include leadership and management communication skills, communication training and development, and communication and the performance appraisal process. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle. Prereq: 340 or cons instr.
343/543. Organizational Communication Assessment. 3 cr . Theories and procedures for assessing communication effectiveness in organizations. Special attention is given to using communication audit techniques and designing solutions to communication problems in organizations. Prereq: 217.
349/549. Organizational Communication Topics. 3 cr . Special topics in organizational communication. Typical offerings include communication in corporate culture, communication and labor relations, organizational communication and motivation, and employee communication patterns. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle. Prereq: 340 or cons instr. 353/553. Advanced Broadcasting Laboratory. 3 cr . Advanced training in radio and/or television production. Typical offerings include: advanced radio production, advanced television production, and broadcast announcing. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle. Prereq: 252 and cons instr.
354/554. Broadcast News Laboratory. 3 cr. Training in radio and television newswriting, reporting, and production. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle. Prereq: 252 or cons instr.
$355 / 555$. History of Broadcasting. 3 cr . An examination of the development and growth of radio and television in America. GDR:HU1

358/558. Regulation of Broadcasting. 3 cr . An analysis of the laws and regulations that affect the American broadcasting industry. Prereq: 151 or 210 or 121.
359/559. Topics in Broadcasting. 3 cr. Special topics in broadcasting. Typical offerings include broadcast programming and management, criticism of broadcasting, mass media effects, and audience research. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle. Prereq: 151.
361/561. Film Laboratory. (formerly 334) 3 cr. Training in the forms of film communciation with variable focus on writing, editing, producing, directing. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle. Prereq. Cons instr.
362/562. Film History. 3 cr. The development of the motion picture; significant national and international trends, films, and artists. Typical offerings include: the history of the motion picture, American films in the 20 s and 30 s , American films of the 40 s and 50 s , American films of the 60 s and 70 s. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle. GDR:HU1
363/563. Film and Television Genres. 3 cr. Examination of media narrative forms which share common stylistic and narrative conventions and themes. Typical offerings include: survey of film and television genres, the American musical film, and images of the American West. Subtitle will be specified each time the course is offered. May be repeated under a different subtitle, GDR:HU1
365/565. Writing for the Media, 3 cr. Writing for specific media contexts. Typical offerings include, ad copywriting, scriptwriting, and writing for public relations. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle. Prereq. Cons instr.
369/569. Topics in Film. 3 cr. Special topics in film. Typical offerings include: film theory and criticism, and survey of documentary film. Subtitle will be specified each time the course is offered, May be repeated for credit under a different subtitle. Prereq. 125 or cons instr. GDR:HU1
373. Communication and Social Change. 3 cr. Study of the communication theories, media, methods, and strategies for affecting or resisting change in society, Prereq: 171 and 272.
374. Art of Criticism. (formerly 319) 3 cr. Applications of critical approaches for understanding, analyzing, evaluating, and appreciating selected forms of communication. Prereq: 171 and 272 or jr st.
383/583. Interpersonal Communication in Organizations. 3 cr. Examination of the theory and practice of communication based directly and primarily on interpersonal relationships in organizations, as it applies to organizational operations and climates. Prereq. 211.
385/585. Interpersonal Communication Laboratory. 3 cr . Interpersonal communication processes. Typical offerings include: nonverbal communication, listening, and interviewing. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle. Prereq: 211 or cons instr.
389/589. Personal Communication Topics. 3 cr. Special topics in personal communication. Typical offerings include. small group communication theory, gender and communication, intercultural communication, and
communication in social interaction. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle. Prereq: 211 or cons instr.
390/590. Seminar. 3 cr. Study and discussion of a new development, special problem, or area of interest in the field of communication. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle: Prereq: Cons instr.
391/591. Computer Communication Laboratory, 3 cr. Computer applications and processes as they relate to the field of communication. Typical offerings include, videotex and computer graphics, communication and the computer age. Subtitle will be specified each time the course is offered. May be repeated for credit under a different subtitle.
394. Speech-Making Laboratory. (formerly 335) 3 cr. Training in speech-making with emphasis on preparation, delivery and evaluation. May be repeated. Prereq. 101 or placement through test-out.
480. Communication Internship. 1 to 8 cr . Supervised field experience with a cooperating agency in fields related to communication; evaluation and review sessions with the faculty internship coordinator and agency supervisor; culminating paper. May be repeated. No more than 8 credits may be counted toward graduation. Prereq. $\mathrm{Jr} / \mathrm{sr} \mathrm{st}$ with 3.00 GPA; coursework and/or student activity in area related to internships; or consent of intern director.
490. Senior Seminar. 3 cr. Each student is required to select and research a topic in an area of interest, to submit conclusions in writing and defend them orally before an invited panel. Prereq: Completion of the required core courses in the major, and recommendation of the adviser.
499. Special Work. Upperclass students majoring or minoring in communication may, by agreement with the division head, arrange for special out-of-class work, for which credit may be allowed on the basis of one for each week, or its equivalent, devoted exclusively to a special project.
700. Methods of Inquiry. 3 cr. Methodological approaches to communication research and study of assumptions operative in such pursuits; investigation of a particular area of study and development of a possible thesis/project prospectus. Prereq: 300 .
701. Foundations of Communication. 3 cr. Examination of contemporary theories; the importance of perception, symbol, meaning, context, and mediation of a holistic understanding of the communication act; application to specific situations.
750. Creativity and Symbolism. 3 cr. Examination of symbols in communication; the relationship of symbols to meaning and creative expression; the formal conventions and properties of different media; practical application through projects for different media.
760. Perspectives in Communication Education. 3 cr. Current trends in communication education; alternative approaches to an integrative view of communication; development of individual courses and a coherent curriculum; relationship to general education objectives.
770. Communication and Organizational Management. 3 cr. Examination of the communication system as the structure of any organization, the relationship of communication systems to the identification and resolution of internal and external organizatonal problems through the communication and training processes.
780. Field Study in Professional Practices. 2 to 6 cr . Career development through participation within professional contexts; field study to analyze, evaluate, and report on actual communication programs in appropriate career areas, background readings, and research application.
785. Administrative Communication: Educational Systems. 3 cr . Analysis of the communication demands on school administrators in addressing multiple publics (students, teachers, administrators, nonprofessional staff; and nonschool community); emphasis on the formulation of appropriate communication policies and their integration into an effective total system.
790. Seminar. 3 cr . In-depth study of a specific area of importance to communication scholars; topics to be specified each time the course is offered.
796. Independent Study, 1 to 3 cr . Planned study designed to enrich and supplement preparation in the student's area of specialization; regularly scheduled conferences with a staff supervisor.
799. Thesis/Project. 1 to 6 cr . The department considers "thesis" to include the option of completing an original artistic project.

## Courses in Communication Education

318/518. Directing Communication Activities in the Secondary School. 3 cr . Preparation of teachers for directing high school media and speech activities. Observation of and experience with activities including school newspaper, radio production, television production, yearbook, debate, and forensics. Prereq: Successful application to the division and cons instr.
380. Secondary School Methods: Philosophy and Practice. 3 cr . Development and implementation of the communication curriculum at the secondary school level.

## COMMUNICATIVE DISORDERS (College of Professional Studies)

William H. Meyer, Associate Dean of the College of Professional Studies and
Head of the School of Communicative Disorders
Room 037, College of Professional Studies Building Phone: (715) 346-2328
Faculty: Aylesworth, Balas, Chappell, Jack F. Curtis, Day, Glascoe, G. Johnson, Lof, W. Meyer, Nash, Pratt, Sarnes, Stombaugh, Tufts.
When you major in communicative disorders you have two options: (1) a major leading to educational certification, and (2) a major which does NOT lead to educational certification. No minor is available. The school's coordinator of academic programs will advise you,

## Academic Standards for Communicative Disorders

1. An overall GPA of 2.50 and an in-major GPA of 2.75 at the end of the sophomore year are required to continue in the major.
2. No course with a grade below "C-" can be counted toward the major.
3. If you fail to meet either the overall or the in-major GPA, you will be placed on probation in the major. You must meet the above GPAs by the end of the probationary semester to continue in the major. Only one probationary semester will be allowed.
4. All courses taken in the major (including required courses in psychology and education) are used in determining the GPA, regardless of a declaration of academic bankruptcy. You may petition the school's academic programs committee for exception.

## Communicative Disorders Program Leading to Teacher Certification

Consists of courses from the undergraduate program in communicative disorders, of collateral courses in psychology and education, and of the Master of Science Degree - Communicative Disorders.
The following courses are required at the undergraduate. level:

1. Commúnicative Disorders, 41 credits: 251, 260, 264 , $266,345,351,352,360,361,366,420,425,495$.
2. Psychology, 12 or 13 credits: 110,260 or Early Childhood Education 261, 300, 375.
3. Education, 9 credits: 308 or $326,351,381$.
4. Human relations requirement, 1 credit: Sociology 305 (may be waived for students with appropriate experience).

## Communicative Disorders Major Without Teacher Certification

Includes the courses listed directly above in items 1 . and 2.

## Master of Science Degree-Communicative Disorders

Is described in the section of the catalog on The Graduate School.

## Center for Communicative Disorders

College of Professional Studies Building
Phone: (715) 346-3667
The Center for Communicative Disorders provides you with a variety of services. It conducts testing of incoming students in order to identify problems of speech and hearing, and offers diagnostic and therapeutic services to university students. You are encouraged to contact the center (weekdays from 7:45 a.m. to 4:30 p.m.) for personal assistance with your speech and/or hearing problems.
The diagnosis and treatment of speech, language, and hearing disorders are also extended to the people of Wisconsin. Some of the problems encountered in the center are stuttering, articulation defects, cerebral palsy, cleft palate, voice disorders, hearing problems, language disorders, and aphasia.
The center, in conjunction with its educational program, provides practicum experience for students majoring in communicative disorders.

## Courses in Communicative Disorders

108. Introduction to Communicative Disorders. 3 cr . Overview of normal speech, language, and hearing processes; survey of disorders of communication; and communicative disorders - the profession.
109. Hearing Science. 3 cr . Measurement of sound; anatomy and physiology of the hearing mechanism; perception of sound. Prereq: So st.
110. Basic Manual Communication. 2 cr . Instruction and practice in the presentation of English through the use of manual signs and fingerspelling. One hr lec, two hrs lab per wk. Prereq: So st.
111. Foundations of Education of the Hearing Impaired, 3 cr. History and philosophy of the education of the hearing impaired; psychological characteristics and social adaptation of deaf and hard-of- hearing populations. Prereq: So st.
112. Phonetics. 3 cr. Analysis of speech production utilizing the international Phonetic Alphabet; emphasis on transcription practice including normal and deviant articulation. Prereq. So st.
113. Anatomy and Physiology of Speech and Language Mechanisms. 3 cr. Gross anatomy and physiology of the articulatory, phonatory, and respiratory structures; landmarks of the central and peripheral neural mechanisms, and embryological derivation of the orofacial complex. Three hrs lec per wk. Prereq: So st.
114. Normal Development of Human Communicative Behavior. 3 or 4 cr. Normal development of speech perception and production, linguistic and cognitive skills (3 cr). For communicative disorders majors: required practicum with normal children (1 cr). Prereq: So st.
345/545. Developmental Disorders of Articulation. 3 cr. Phonetic, phonemic, and phonological communicative disorders; emphasis on methods of assessment and management. Prereq, 251, 260, 264, 266.
351/551. Audiometry, 4 cr. Nature and measurement of hearing; audiometric procedures and review of specialized tests. Three hrs lec, two hrs lab per wk. Prereq. 251, 260, $264,266$.
352/552. Audiological (Re)Habilitation. 3 cr. Methods and procedures used in programming for the hearing impaired in the visual, auditory, speech, and language problem areas. Prereq: 351.
353/553. Conversational Sign Language. 2 cr. Instruction and practice in the presentation of English through the use of manual signs and fingerspelling at an intermediate level, review of research pertalning to manual communication. Prereq: 252 or cons instr.
354/554. Alternate Communicative Systems. 3 cr. Nonspeech communicative systems.
115. Clinical Procedures I. 3 cr. Directed observation of clinical management, presentation of basic diagnostic instruments, interviewing techniques, and overviews of clinical report writing and therapy planning. Prereq: 251, 260, 264, 266.
116. Clinical Procedures I1. 1 cr. Practicum, report writing, and therapy planning. Two hrs lab per wk. Prereq: 360.
117. Language Disorders. 4 cr . Nature, assessment, and management of language disorders in children. Prereq: 266.
367/567. Educational Programming for Language
Disordered Children and Youth. 3 cr. For the student in exceptional education: communication disabilities (semantic, syntactic, pragmatic, memory) of elementary and secondary school age children; educational planning relative to assessment and intervention alternatives. Prereq: 266.

407/607. Introduction to Speech and Hearing Science. 3 cr. Acoustic and physiologic parameters of speech production and perception, including laboratory assessment of these parameters.
420. Organic Disorders I. 3 cr. Fundamental characteristics of voice and resonance disorders, including programs for assessment and treatment.
421. Organic Disorders II. Fundamental characteristics of neuromotor speech disorders and acquired language disorders, emphasis on cerebral palsy and adult aphasia.
425. Theories of Stuttering. 3 cr. Analysis of the theoretical foundations for stuttering; current research.
430/630. Care-giver/Family Intervention: Procedures. 3 cr. Theories and patterns of interaction between clinicians and family units where communicative disorders are involved; initial contacts, information giving and receiving, termination of therapy, practice interview.
431/631. Care-giver/Family Intervention: Practicum. 1 cr. Practice in establishing an interaction pattern between the clinician and family unit; direct contact with a family member and/or a family unit; supervised observations and videotaped critiques. Prereq: 430/630.
495. Clinical Practicum. 2 cr. Experience with management of articulation and language disorders for preschool or school age clients; speech and hearing screening and tests with children and/or university students. Must be repeated for a total of 4 credits. Prereq: 361.
499. Special Work. Upperclass students majoring in communicative disorders may, by agreement with the Head of the School of Communicative Disorders, arrange for special out-of-class work for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project.
710. Research Methods. 3 cr. Scientific method, design and statistical techniques used in speech and hearing research; emphasis on evaluating current literature.
711. Clinical Instrumentation. 3 cr . Clinical use of measuring and recording instruments, theory of operation of various instruments, their application, and criteria used in their selection. Two hrs. lec, two hrs lab per wk. Prereq: 731 or 737.
713. Instrumentation. 2 cr Basic acoustics, electronics, and use of electroacoustical equipment.
714. Oral Peripheral and Motor Speech Examination. 1 cr. Discussion and laboratory experience in examination of the structure and functions of the oral mechanism.
115, 716. Gross Anatomy of the Head and Neck 1 and II. 2 cr each. Dissections of the head and neck in reference to structural relationships of the mechanisms for human communication.
721. Auditory and Vestibular Systems. 2 cr. Anatomy, physiology, and neurology of the auditory and vestibular functions. Prereq: Cons instr.
722. Theories of Hearing. 3 cr. Psychological, acoustic, and bioacoustic aspects of hearing. Prereq; Cons instr.
724. Stuttering in Children. 3 cr. Analysis of the development of stuttering; programs for child, parent, and school; emphasis on preschool through junior high.
725. Stuttering in Adults. 3 cr. Development of stuttering with analysis of remediation programs.
729. Neurophysical Bases of Speech and Language, 3 cr. Functional anatomy of central and peripheral neural mechanisms mediating sensory and motor aspects of speech and language.
730. Neuropathologies of Speech I. 3 cr. Impact of neuromotor and neurosensory deficits of cerebral palsy on speech and language development; theories and procedures for evaluation and habilitation; emphasis on neurodevelopmental approach. Prereq: 729.
731. Neuropathologies of Speech II. 3 cr . Major types of acquired dysarthrias and apraxia of speech; description, assessment, and management. Prereq: 729.
732. Language Theories. 3 cr . Language acquisition from a variety of theoretical viewpoints: behavioral, transformational-generative, cognitive-linguistic, and pragmatic orientations.
733. Language Therapy for the Adolescent. 3 cr . Respective assessment and therapy goals, materials, and methods for fostering the development of communication skills of adolescents with language disorders.
734. Language Therapy for Select Populations. 3 cr. Respective assessment and therapy goals, and programs for fostering the development of communicative skills of children with mental retardation, autism, and cultural language variation.
735. Disorders of Phonation. 3 cr . Advanced study of functional and organic voice disorders; assessment and management procedures for children and adults; alaryngeal speech management for the laryngectomized.
736. Advanced Study in Language Learning Disorders. 3 cr. Characteristics of language acquisition used to define language disorders; assessment and treatment.
737. Maxillofacial Disorders. 3 cr. Evaluation and management of communication disorders associated with maxillofacial anomalies; emphasis on interdisciplinary team approach.
740. Aphasia and Related Disorders. 3 cr . Advanced study of acquired language disorders of adults; evaluation, differential diagnosis, and management procedures. Prereq: 729.
745. Disorders of Phonology. 3 cr. Advanced study of the etiology, assessment, and management of deviant phonological systems of children and adults.
749. Total Communication, 3 cr . Theory, rationale, and the research pertaining to total communication; performance skills in the total communication approach. Prereq: Cons instr.
751. Measurement of Hearing. 3 cr . Theory in the assessment of auditory function, site of lesion testing, including impedance audiometry; interpretation of audiometric results for medical, educational, communicative, and legal purposes; practicum. Two hrs lec, one hr lab per week. Prereq: Cons instr.
752. Seminar in Hearing Measurement. 3 cr. Advanced study of site of lesion testing, interpretation, and practice. Prereq: 751 and cons instr.
753. Special Audiological Procedures. 2 cr. Audiometric techniques used with pediatric, geriatric, and difficult-totest clients. Prereq: 751 and cons instr.
754. Audiology Practicum. 1 cr. Assigned clinical experience in the Center for Communicative Disorders. Prereq: 751 and cons instr.
755. Pathologies of the Auditory and Vestibular Systems. 2 cr. Comprehensive study of auditory and vestibular systems disorders. Prereq: 721 and cons instr.
757. Advanced Practicum. Assigned experiences in the audiology clinic. Prereq: 752, 760, and cons instr.
760. Amplification. 2 cr. Hearing aid measurement, selection procedures, and hearing aid orientation. Prereq: 713 and cons instr.
762. Audiologic Habilitation. 2 cr. Programs, techniques,
and counseling used with hearing impaired children. Prereq: Cons instr.
763. Audiologic Rehabilitation. 2 cr . Programs and techniques employed with hearing impaired adults. Prereq: Cons instr.
766. Problems of the Deaf and Hearing Impaired. 2 cr . Contemporary problems and analysis of the research pertaining to the deaf and hearing impaired. Prereq: Cons instr.
767. Diagnosis of the Nonverbal Child. 3 cr. Evaluation procedures including task analysis, cognitive-linguistic development, and performance parameters.
768. Counseling in Communicative Disorders. 3 cr. Professional role, theories, strategies, and objectives relative to counseling the communicatively impaired client.
769. Supervision. 3 cr . Supervisory theories, styles, problems, behavioral analysis instruments, emphasizing the clinical model.
770. Management in the Education Settlng. 3 cr . Methods, materials, and administration of communicative disorder programs in educational settings; special attention to state and federal legislation as it relates to school speech/language programs.
771. Speech Pathology Services in Noneducational Settings. 3 cr . Organization and administration of speech/language programs, including philosophy, budget, staff, case-load, record keeping, and referral procedures.
780. Communicative Disorders in Children. 3 cr . Etiology, identification, and management of the child; designed primarily for teachers and school administrators. Not open to majors in communicative disorders.
781. Seminar in Audiology. 3 cr . Advanced study of amplification, ENG, EEG, and other selected areas. Prereq: Cons instr.
782. Administrative Aspects of Communicative Disorders. 3 cr . Administration, legal aspects of case management, supervision. Prereq: Cons instr.
783. Computer Utilization. 3 cr . History of logic systems in audiology, speech, and language; contemporary application of microcomputers in these fields; introduction to terminal usage and BASIC language programming. Two hrs lec, two hrs lab per wk.
790. Externship. 6 cr. A 13 -wk assignment to a community, medical, or educational setting. Prereq: Completion of academic requirements and consent of audiology staff.
792. Special Project in Audiology. 3 cr . Review of the literature or a research project resulting in a presentation to the faculty, staff, and students.
793. Graduate Practicum I. 1 cr. Experience in management of articulation and language disorders for preschool, school age, or university students in the University Clinic.
794. Graduate Practicum II. 2 cr. Experience, evaluation, and management of speech, language, and/or hearing rehabilitation of cases in the University Clinic and at selected external sites.
795. Clinical Semester. $10-15 \mathrm{cr}$. Extended clinical assignment on a full-time basis outside the University Clinic in schools, hospitals, or clinics. Prereq: Completion of three enrollments in Graduate Practicum.
796. Independent Study. 1 to 3 cr. Prereq: Cons instr.
797. Workshop. 3 to 6 cr. Individual and/or group projects designed to expand the course content of the graduate program. May be repeated for credit as the course content changes.
799. Thesis. 2 to 6 cr .

## COMMUNITY NUTRITION <br> See Home Economics.

## COMPARATIVE LITERATURE <br> (College of Letters and Science)

Mark Seiler, Coordinator
Room 490, Collins Classroom Center
Phone: (715) 346-3036

## Comparative Literature Minor

Is administered by the Department of Foreign Languages. It consists of the following:

1. Comparative Literature 101 and 102,6 credits.
2. Six credits in advanced literature courses in which you do the reading in a language other than your native language.
3. Comparative Literature 399.
4. Additional courses in comparative literature and English to total 21 credits, as follows:
a. At least 12 credits in comparative literature courses.
b. Additional credits selected from English 310, 312, $319,361,362,372,380$.

## Courses in Comparative Literature

101. Masterpieces of the Western World. 3 cr. A comparative study of themes and literary traditions in the literature of the Western World from Homer to Montaigne. GDR:HU2
102. Masterpieces of the Western World, 3 cr. A comparative study of themes and literary traditions in the literature of the Western World from Milton to Mann. GDR:HU2
103. The Novel Before 1850.3 cr . A comparative analysis of selections from the works of such writers as Cervantes, Lyly, Nash, Voltaire, Goethe, Hoffman, Balzac, Stendahl, Gogol, and Mansoni, with major emphasis on evolution of form and theme. GDR:HU2
350/550. Special Problems. 2 or 3 cr . Special focus on one of the following: a non-English writer, a comparative study of two writers; a literary group or genre; the relationship between literature and other arts; a recurrent theme in literature. A subtitle indicating the focus will be added each time the course is offered; any needed foreign language preparation will be indicated. Prereq. Language preparation by the student for the problem to be handled.
104. Special Work. Upperclass students minoring in comparative literature may, by agreement with their adviser, arrange for special out-of-class work for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project. Prereq. Cons instr, and approval of the chair of the Department of Foreign Languages.
For more course listings in comparative literature, see the Latent Course List at the end of this section.

## COMPUTER INFORMATION SYSTEMS (College of Letters and Science)

Robert P, Morris, Coordinator of Instructional Computing Room B-246, Science Building
Phone: (715) 346-2120
The program and courses in computer information systems are administered by the Mathematics and Computing Department.

## Computer Information Systems Major

Consists of ONE of the three options listed below and these required courses: CIS $105,110,111,210,230,312$ or 313, 315, 316, English 358 and CIS 480.

1. Business option:
a. CIS 319,351 and 352.
b. One 300 -level CIS course.
c. Mathematics 115 and 116 , or equivalent.
d. A collateral minor in business administration.
2. Technical support option:
a. CIS 302,352 . ( 6 credits).
b. Three credits from: CIS $305,345,357,331$ or 372 , $362,365,340$.
c. Six credits from Mathematics $305,310,315,357$, 360.
d. Mathematics 120 and 121 , or 116 and 117 .
e. Mathematics 351 and 352 , or Mathematics 355 or Economics 310.
f. A collateral minor approved by the coordinator of instructional computing.
3. Data communication option:
a. Computer Information Systems 319, 362. ( 6 credits).
b. Nine credits (three courses) from CIS $320,340,345$, 352, 365, 357, Mathematics $305,310$.
c. Mathematics 115, 116, or equivalent.
d. A collateral minor in communication.

## Computer Information Systems Minor

Consists of 23 credits:

1. CIS $105,110,111,210$ and 230.
2. CIS 312 or 313 , and 6 additional credits of 300 -level CIS courses.

## Computer Science Minor for Secondary Teacher Certification

Consists of 26 credits:

1. Sixteen credits: CIS $101,102,105,110,111,210$ and 230.
2. Computer Science Education 334.
3. Three credits in a second programming language.
4. Four credits: any CIS course(s).

NOTE: When a 390 course is offered, the department will specify in which, if any, of the options (business, data communication, technical support) or the computer information systems minor, the course may be used as an elective. A 499 course can be added as an elective only with the prior approval of the coordinator.

## Courses in Computer Information Systems (CIS)

(I indicates first semester offering; H, second semester.)
101. Introduction to Computing. 2 cr. Survey, history, hardware, software, applications, social implications, the future of computing. Prereq: Con reg in 102. (I, II)
102. Practicum in Computing. 1 cr. A subtitle will be added for each section offered. May be repeated for credit under different subtitles. Prereq, 101 or con reg. (1, II)
105. Introduction to Campus Computing Facilities. 1 cr . A survey of the computing facilities and capabilities on campus; working knowledge of campus operating systems; understanding campus network facilities and their use in sharing data software and peripheral devices. (I, II)
110. Algorithm Development and Computer Programming 1. 3 cr. Problem-solving, algorithm development, and computer programming in the microcomputer environment using a block structured language such as Pascal; how to design, code, debug, and document programs using structured programming techniques and good programming style. Prereq: Con reg in 105. (I, II)
111. Algorithm Development and Computer Programming II. 3 cr . Design, writing, and documenting of large programs requiring the use of sequential and random access files, input verification, screen handling, pointers, and multiple dimension arrays; individual and team projects. Prereq: 110. (I, II)
112. Introduction to FORTRAN Programming. 3 cr . Problem-solving, algorithm development, and computer programming using the scientific programming language FORTRAN 77; how to design, code, debug, and document programs using structured programming techniques and good programming style. Prereq: Mathematics 100 or equiv. (I, II)
113. Introduction to COBOL Programming. 3 cr . Problemsolving, algorithm development, and computer programming using the business programming language COBOL; how to design, code, debug, and document programs using structured programming techniques and good programming style. (I, II)
210. Data Structures. 3 cr . Basic structures used for representing information and techniques for operation upon these data structures: arrays, stacks, queues and dequeues, general linear lists, trees, graphs, symbols, and multi-linked structures. Prereq: 111 (1, II)
212. Advanced FORTRAN Programming. 3 cr . Designing, writing, testing, and documenting larger FORTRAN 77 programs requiring the use of sequential and random access data files; individual and team projects. Prereq: 112 or equivalent experience as determined by the coordinator of Instructional Computing. (I, II)
213. Advanced COBOL Programming. 3 cr . Designing, writing, testing and documenting of larger COBOL programs requiring the use of sequential, indexed, and random access data files; individual and team projects. Prereq: 113 or equivalent experience as determined by the coordinator of Instructional Computing. (I, II)
230. Computer Organizational and Assembly Language. 3 cr. Thorough working knowledge of microcomputer systems: basic computer architecture, instruction and data representations, addressing, operations, program linkage, input/output, interrupts, traps, and assembly language programming. Prereq: 111. (I, II)
240. Software Design and Development. 3 cr. Structured software development; strategies and techniques of structure design for producing logical methodologies for dealing with complexity in the design and implementation of information systems. Prereq: 212 or 213. (I, II)
305. Operating Systems. 3 cr . Batch processing, real-time and time-sharing systems, resource allocation, memory management, performance measurement, and system evaluation. Prereq: 230. (II)
312. Advanced Programming: FORTRAN. 4 cr. The
application of FORTRAN 77 to the solution of significant scientific problems; individual and team projects. Study of the syntax and logic of the FORTRAN 77 programming language. Prereq: 210 and a one-semester course in calculus. (I, II)
313. Advanced Programming: COBOL. 4 cr . The application of COBOL to the solution of significant business problems; individual and team projects. Study of the syntax and logic of the COBOL programming language. Prereq: 210. (I, II)
315. Structured Systems Analysis and Design I. 3 cr . Overview of the systems development life cycle; documentation of the current system using structured tools/techniques for describing process flows, data flows, data structures, file designs, input and output designs; general design of the new system. Prereq: 210. (I, II)
316. Structured Systems Analysis and Design II. 3 cr. A continuation of the methods and techniques introduced in the first analysis and design course; structured techniques for transition from general design through systems implementation; systems conversion strategies, training approaches, system review consideration. Prereq: $\mathbf{3 1 5}$ and 312 or 313. (I, II)
319. Database Program Development. 3 cr . Organizational approaches of a database dictionary; various schemes of a database; basic database models; concepts of files, directories associated with database models; various inquiries; retrievals of information using the directories; performance analysis of the directories in terms of storage, time; query languages, security, integrity, reliability of a database. A group project will be implemented by the students using the design concepts of a relational database model. Prereq: 312 or 313. (I)
324. C Programming Language. 3 cr . How to design, code, debug, and document significant programs using the C programming language in the UNIX environment. Topics will include modular programming techniques, arrays, pointers, character manipulation, and file manipulation, Prereq: 210 (I, II)
335. Computers, Data Processing, and the Law, 3 cr . Legal issues relating to computing and data processing: hardware and software contracts; remedies for computer system failures, personnel consulting services; facilities management; writing computer programs for sale; computer crime and privacy; cases and court opinions. (I, odd years)
340. Artificial Intelligence. 3 cr . General strategies and analysis of contemporary work in pattern recognition, game playing, theorem proving, and general problemsolving. Prereq: 312 or 313. (I, even years)
345. Alternate Programming Languages. 3 cr . Examination of one of the less frequently used or special purpose programming languages, with emphasis on language structure. A subtitle indicating the language will be added each time the course is offered. May be repeated for credit under different subititles. Prereq: 312 or 313. (II, odd years)
351. Modeling and Simulation. 3 cr. A study of various mathematical models of standard generic systems; the design, implementation, and validation of computer-based simulations of those models. Random number generation, probability distributions, and expert systems. Prereq: 111 and a statistics course. (I)
352, Decision Support Systems. 3 cr. Analysis of decisionmaking activities and the use of computer-based technology
to support those activities within organizations; DSS within the general MIS structure; development, implementation and evaluation considerations; technological components, applications to real-world case studies; research project. Prereq: 312 or 313 or 324 , and 351 or equiv with cons instr, (II)
362. Data Communications. 3 cr. Physical basis for commumcation; modulation techiques; synchronous and asynchronous transmission; analog and digital signalling; multiplexing; communication hardware and software; networks and protocols; routing algorithms; error detection and correction. Prereq 230 . (I)
365. Computer Graplics. 3 cr. An introduction to the concepts and applications of computer graphics; overview of pertinent computer graphics hatdware, basic algorithmic graphic procedures, prefactory graphics programming, fundamental mathematical principles of graphics, and the practical applications of computer-generated images, raster and vector graphics programming techniques, scale parameters, coordinate systems, two- and three-dimensional picture generation, graphic, design, and animation principles. Prereq. 112 or equiv, Math 115. (I)
370/570. Introduction to Computer Uses in Education. 3 cr. Computer components, capabilities and limitations of several microcomputer brands; software selection, computer programs and design; use of major software packages such as word processors, spreadsheets, and databases; an overview of such languages as BASIC, LOGO, PILOT. May not be counted toward Computer Information Systems major or minor.
371/571. Microcomputer Familiarization Workshop. 1 cr. Components of a computer; familiarization with several microcomputers; capabilities and limitations of computers, survey of existing software. Not open to those who enroll in CIS $370 / 570$ or equiv. May not be counted toward Computer Information Systems major or minor.
372. Data Analysis Packages for Biological Sciences. 3 cr. Utilization of microcomputer software packages to solve problems in data/information management and analysis in biology and natural resources, use of statistical, database management, spreadsheet modeling and word processing software; CIS 331 and 372 may not BOTH be counted toward the major, Prereq: 102 (BASIC) or cons instr.
373/573. Word Processing, Spreadsheet, and Database. 3 cr. Description of the systems, including a variety of applications. May not be counted toward Computer Information Systems major or minor. Prereq: For 573, bachelor's degree or cons instr.
375/575. Introduction to Computer Programming for Teachers, 1 to 3 cr. Techniques, program design, and style; properties particular to the programming language; programs and projects. (A subtitle will be announced each time the course is offered, indicating the language to be considered, e.g, PASCAL, LOGO, BASIC, May not be counted toward Computer Information Systems major or minor. Prereq: For 575, bachelor's degree or cons instr.
380/580. Advanced Computer Programming for Teachers. 3 cr . Advanced programming in a specific language, e.g. PASCAL, BASIC, techniques, program design tools, including top-down design and pseudocode; programs and projects. May not be counted toward Computer Information Systems major or minor. Prereq: 375 or 575 , or cons instr.

390/590. Special Topics in Computer Science. 3 ct. Topic will be announced in the timetable. Prereq: Consent of the chair of the Mathematics Department.
480. Applied Software Development Project. 4 cr. Application of computer programming and system development concepts, principles, and practices to a comprehensive system development project; team approach to analyze, design and document realistic systems of moderate complexity; use of project management methods, project scheduling and control techniques; formal presentations and group dynamics in the solution of information systems problems; development of a database to support the system, Prereq: 316 and sr st. ( $\mathrm{I}_{\text {, II }}$ )
499. Special Work. Upperclass students in Computer Information Systems may, by agreement with the chair of the department, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project.

## Course in Computer Science Education

334. Techniques in Secondary Education: Computer

Science. 3 cr. Aims, methods, materials, and content of secondary school computing courses. Prereq. Admission to the Professional Education Program and jr st.

## COMPUTER SCIENCE

See Computer Information Systems.

## CONVOCATION

Douglas Radtke, Coordinator Room 202A, Main Building Phone: (715) 346.3710
100/300. Convocation. 1 cr. Discussion and analysis of major themes of convocation address. Offered over a three-to-four week period centered around "Convocation" each fall. A subtitle will be listed each time the course is offered. May apply to general degree requirements as determined with each offering.

## COOPERATIVE EDUCATION

Stephanie Bullis, Coordinator
Room 134, Main Building
Phone: (715) 346-3136
In the cooperative education program you can gain one to five years in training experiences in work related to your academic major or career goals. All students, freshmen to seniors, are eligible.
As a co-op student, you must register for your work periods, but you receive no academic credit. Registration means that a record of the work experience will be entered on your permanent record.

## Courses in Cooperative Education

1. First Work Period. 0 cr. Prereq: Approval by the coordinator's office and by the chair of the student's major department; acceptance by the employing organization.
2. Second Work Period. 0 cr. Prereq: Satisfactory completion of 001 ; see statement under 001 .
3. Third Work Period, 0 cr, Prereq. Satisfactory completion of 002 ; see statement under 001 .
4. Fourth Work Period, 0 cr. Prereq, Satisfactory completion of 003, see statement under 001 .
5. Fifth Work Period. 0 cr. Prereq: Satisfactory completion of 004; see statement under 001 .

## DANCE

See Theatre Arts.

## DIETETICS

See Home Economics.

## DRAMA

See Theatre Arts.

## EARLY CHILDHOOD EDUCATION

See Home Economics.

## EARTH SCIENCE <br> (College of Letters and Science)

Thomas Detwyler, Coordinator
Room D-332, Science Building
Phone: (715) 346-2629
Earth Science Minor
Is administered by the Department of Geography and Geology and consists of 22 credits:

1. Geography 101 and Geology 101.
2. At least one course from each of the following groups:
a. Geography 352, 353, 354.
b. Geology 200, 201, 340, 370, 380.
3. Six additional credits either from groups 2.a. and 2.b.
above; or from Geography 375, 393, 395; Geology 393, 395; Astronomy 311.
If you 'want teacher certification in earth science, you must include Geography 101, Geology 101, Astronomy 311, and at least two field experience credits in Geography 393 and/or Geology 393.

## EAST CENTRAL EUROPEAN STUDIES

See Russian and East Central European Studies.

## ECONOMICS

See Business and Economics.

## EDUCATION

## (College of Professional Studies)

Associate Dean and Head of the School of Education Room 440, College of Professional Studies Building Phone: (715) 346-2040
Faculty: Allar, Benz, Boyle, Kaufman, Kirby, Kuse, McCaig, McClain, D. Miller, M. Miller, Narron, Oliver, Pearson, J. Price, Reyes, Riggs, Rimnac, Thompson, Van Dreser, Wheeler, Wood.
See the Home Economics section of this catalog for information on early childhood education.
Major changes will affect students who graduate after July 1990. See your adviser.

## The Center Program (Centers for the Study of Teaching)

If you are considering teaching the primary or intermediate
grades or teaching in the secondary school, you may use one of these prestudent teaching centers. Through a center, you work with teachers and students in a public school while you take your professional education courses. After experiencing this blend of theory and practice, you may better decide whether you wish to teach before you are locked into the curriculum.
You may get further information on the centers from the associate dean of the School of Education. If you then decide to study teaching at a center, plan your program with your adviser before you take your professional education courses.

## Admission to the Professional Education Program <br> In order to enroll in certain junior and senior level

 education courses required for teacher certification, you must be accepted into the Professional Education Program, which leads to teacher certification.You are eligible for admission into this program if you:

1. Earn a 2.50 grade point average (GPA) in English 101 and 102 or:
a. Test out of both courses through the department test-out exam or receive credit by examination for both courses,
b. Test out of one course (or receive credit by examination for it) and maintain a 2.50 GPA in the other,
c. Pass English 250 or 350 with a 2.50 GPA or better, or
d. Receive certification of your writing competency from the Writing Lab of the Academic Achievement Center;
2. Complete a speech and hearing screening test; (We make remedial services available to any student who seeks them.)
3. Earn a 2.50 cumulative GPA;
4. Pass Education 100;
5. Pass any required competency tests.

If you do not meet these criteria and are formally denied admission to the Professional Education Program, you may file a petition with the Director of Laboratory Experiences (Room 112 College of Professional Studies Building), who will pass it along to the Teacher Education Review Committee. This committee grants provisional admission to the program in special cases.
If you are a transfer student or have an undergraduate degree from an accredited institution, we will admit you conditionally to the Professional Education Program for your first semester if you:

1. Have a grade point average of 2.50 or better in all the courses which you transfer, and
2. Have a grade point average of 2.50 in the equivalent of English 101 and 102.
We will admit you fully to the Professional Education Program when you have satisfied the other requirements mentioned above. You must also earn 9 credits at UWStevens Point before the semester when you do your student teaching.
If you are interested in any teacher certification program, apply for admission to the Professional Education Program after you have completed 45 credits. Get your application from the Advising Center, Room 446, COPS Building. Then work with the adviser assigned to help you plan your course of study.

## Elementary Education Curriculum for the Bachelor of Science Degree

1. Complete the requirements for the B.S. degree listed under the General Degree Requirements section of this catalog. However, note the specific courses to take under the following categories:
a. In the verbal and quantitative skills sequence, take English 101 and 102; Mathematics 228 along with Mathematics Education 228; and Mathematics 338 along with Mathematics Education 338.
b. In the critical thinking/natural science sequence, take 13 to 15 credits, including no more than one 3 -credit course, and at least two 5 -credit courses in these three disciplines:
1) Physical science: Chemistry 100 or 101; Physics 100 or 101 ; Astronomy $100,105,106$, or 311 .
2) Earth science: Geography 100 or 101 ; Geology 100 or 101;
3) Life science: Biology 100 or 101 .
c. Take 21 credits to fulfill the critical thinking/cultural awareness requirement, including 3 credits in nonWestern culture.
4) History: Take History 212 and three more credits from History $120,130,211,379,380,382,385$.
5) Social Science: Take 6 to 9 credits, including Psychology 110 and 260 . Sociology 305 or an alternate is also required.
6) Humanities. Take 6 to 9 credits, including at least one of these: English $211,212,213$, or 214.
d. Take Natural Resources 370 to fulfill the technology and contemporary issues requirement.
e. Take Physical Education 231 and 252 to fulfill the physical education requirement.
2. After you have completed 45 credits, apply for admission to the Professional Education Program. For full information on how to do this, and for a list of the admission criteria, see the Education section later in this catalog.
3. Take 32 credits of professional education: Education $100,326,351,381,383,398$, and Instructional Resources 331.
4. Take 17 credits in education methods: Education 304, 308, 324, 325, 355, Mathematics Education 228, 338, and either 345 or 346 .
5. Take 16 credits of related professional subject matter: Art 101 or Home Economics 101, Art Education 322, English 275, Physical Education 280, and Music Education 381.
6. If you want kindergarten certification, take Education 301 and successfully complete 8 credits of student teaching in kindergarten.
7. See your School of Education adviser for help in planning an area of emphasis (e.g., biology, English, instructional resources) appropriate to your professional needs and interests. If you will be graduating after July 1990, you will be required to complete a minor.
8. Demonstrate your competency in:
a. Written Language by:
1) Earning a 2.50 grade point average or better in English 101 and 102, or
2) Testing out of both courses through the department test-out exam or receive credit by examination for both courses, or
3) Testing out of one course (or receiving credit by examination for it) and maintaining a 2.50 grade point average in the other, or
4) Passing English 250 or 350 with a grade point
average of 2.50 or better, or
5) Receiving certification of your writing competency from the Writing Lab of the Academic
Achievement Center, if your grades in English 101 and 102 are below 2.50 .
b. Music Accompaniment: Complete Music 149 or 159 or demonstrate the following skills on the piano, guitar, or autoharp before you take Music Education 381 :
6) Accompany with I, IV and V7 chords one song selected from any level of an elementary basic music series.
7) At sight, harmonize a melody selected from an elementary basic series book.
Make an appointment for the music proficiency examination with the Music Education 381 teacher at least a week before the exams. Exams are held the first and last week of each semester.
c. Speech and Hearing. Perform satisfactorily on a screening test administered by the Center for Communicative Disorders. If they discover a problem, a recommendation for remediation will be provided.

## Notes Regarding Teacher Certification for Elementary Teachers

1. For teacher certification you must have 100 clock hours of prestudent teaching experience working with children and youth and 50 clock hours involvement with designated minorities and other groups.
2. Be sure you understand and fulfill the human relations requirements of the Wisconsin Department of Public Instruction. You can pick up a copy of the human relations requirements checklist from the School of Education Advising Center, Room 446, COPS Building.
3. You may also earn add-on certifications in driver education, early childhood/exceptional educational needs, English as a second language, emotional disturbance, foreign language in the elementary school, mild-moderate mental retardation, music special education, and reading.
4. If you minor in instructional resources, you may be certified to work as a school librarian and/or an audiovisual director.
5. If you major in one of the three areas of music education (general music $\mathrm{K}-12$, instrumental music $\mathrm{K}-12$, or choral music $7-12$ ), you may complete add-on certification requirements in the other two.

## Certification in Kindergarten

If you wish to prepare for kindergarten teaching, you may do so either by:

1. Majoring in early childhood education, which leads to nursery school and kindergarten certification only, or
2. Majoring in elementary education, taking Education 301 and an additional 8 credits of student teaching in kindergarten, which certifies you to teach in kindergarten through grade 8 .

## Elementary Education Curriculum for County College Graduates

If you graduated from the regular state-approved two-year county teachers college course, you may be tentatively admitted to junior standing in professional education if the associate dean of the School of Education determines that your record is satisfactory.

If you attended a county teachers college in 1970-71 and 1971-72 and successfully completed at least 32 semester hours of work in elementary education, you can transfer to UW-Stevens Point and receive credit for 32 semester hours of nonspecific credit.

## Secondary Education Curriculum for Teacher Certification (Grades 7-12)

Meet the following requirements if you enter the teacher certification program in the fall of 1987 or later, or if you graduate after July 1990:

1. Complete the requirements for the B.S. or B.A. described in the section of this catalog entitled General Degree Requirements.
2. Meet your history requirement for certification by taking History 212 and then choosing three additional credits from History 120, 130, 211, 379, 380, 382, 385, 386, and 388.
3. Complete one of the three options for major and minor studies. (See the information below under Options for Majors and Minors in Secondary Education.)
4. Take the following courses for certification:
a. Education 100, 351, 355 (or a substitute), 380, 381, 386 (or English 381 if you are an English major or minor);
b. Methods course in your major ( 3 credits);
c. Methods course in your minor, if you want to certified in your minor ( 3 credits);
d. Education 398 ( $10-16$ credits);
e. Either Sociology 305 or a noncredit tutoring, counseling, or similar activity approved by the teacher certification officer; (See your adviser for guidance. If you major in certain subjects, you may be exempt from this requirement.) and
f. Natural Resources 370 and Economics 210 if you major in science or social science (except philosophy, religious studies, or psychology) unless it is part of a broad-field major.
5. Achieve a 2.50 cumulative GPA before student teaching.
6. Achieve a 2.75 GPA in your major, minor, concentration, and education course (or be in the upper half of your class) before you student teach.
7. Earn a 2.0 ("C')) or better in all areas of student teaching. You CANNOT be certified if you receive a grade less than "C."
8. Pass a standardized test in mathematics, reading, and writing. (You may take this test up to three times.)
9. Pass a standardized test in each certification major, minor, and concentration. (You may take these tests up to three times.)
10. Follow the steps outlined under the section of this catalog entitled Graduation.

## Options for Majors and Minors in Secondary Education

You should meet one of three options:

1. One certifiable major and one certifiable minor.
2. Two certifiable majors.
3. One certifiable broad-field or comprehensive major of at least 54 credits. You may take a broad-field major in art, communicative disorders, home economics, music, natural science, physical education, or social science.
For information on the requirements for your major and minor, see the section on your field of study. Note that the teaching major sometimes differs from the major for those not seeking teacher certification.

## Notes Regarding Teacher Certification for Secondary Teachers

1. For teacher certification you must have 100 clock hours of prestudent teaching experience working with children and youth and 50 clock hours involvement with designated minorities and other groups.
2. Be sure you understand and fulfill the human relations requirements of the Wisconsin Department of Public Instruction. You can pick up a copy of the human relations requirements checklist from the School of Education Advising Center, Room 446, COPS Building.
3. You may also earn add-on certifications in driver education, early childhood/exceptional educational needs, English as a second language, emotional disturbance, foreign language in elementary school, mild-moderate mental retardation, music special education, and reading.
4. If you major or minor in any of the social sciences (anthropology, economics, geography, history, political science, or sociology) and seek certification, Wisconsin statute requires that you take Economics 210 and Natural Resources 370.
5. If you minor in instructional resourcès, you may be certified to work as a school librarian and/or an audiovisual director.
6. If you major in one of the three areas of music education (general music K-12, instrumental music K12, or choral music 7-12), you may complete add-on certification requirements in the other two.
7. You may gain certification in conservation by earning a teaching certificate along with your resource management major or minor.
8. You are eligible for teacher certification in natural science and social science only if you take the broadfield majors.
9. You are eligible for certification on the basis of a minor in secondary science areas only if you have completed the broad-field science major or a major in another science, except that you may obtain certification in physics with a minor if a major in mathematics is completed.
10. To be certified in biology, chemistry, conservation, earth science, or physics, you must have a minimum of 8 semester credits in other science subjects.

## TEACHER CERTIFICATION

UW-Stevens Point offers certification in the following areas:

| Program | College | Minor | Major |
| :--- | :--- | :---: | :---: |
| American Studies | L\&S |  | $*$ |
| Anthropology | L\&S | $*$ | $*$ |
| Art Education | COFA | $*$ | $*$ |
| Biology | L\&S | $*$ | $*$ |
| Chemistry | L\&S | $*$ | $*$ |
| Coaching | COPS | $*$ |  |
| Communication <br> Communicative Disorders <br> Computer Information | COFA | COPS |  |
| Systems | L\&S | $*$ | $*$ |
| Dance Education <br> (Option of Theatre Arts) | COFA | $*$ | $*$ |
| Drama Education <br> (Option of Theatre Arts) | COFA | $*$ | $*$ |
| Early Childhood Ed. <br> Earth Science <br> Economics | COPS |  | $*$ |
|  | L\&S | $*$ | $*$ |
|  | L\&S | $*$ | $*$ |



## Filing an Application for Teacher Certification

As a graduating senior, apply for an initial license to teach in Wisconsin by filing your application with the teaching certification officer, Room 112, COPS Building. The teaching certification officer will process your application only after you have received your bachelor's degree. Also pick up a copy of the human relations requirement checklist from the School of Education Advising Center, Room 446, COPS Building, and complete it before you graduate.

## Certification in Communicative Disorders

In this sequence you work in a public school with students of all ages (preschool through high school). You receive certification when you complete your master's degree. For further information, see the section entitled Communicative Disorders under Courses of Instruction.

## Certification in Other Exceptional Education

## Fields

Whether you are an undergraduate or a graduate student, you may receive certification in any of several exceptional education fields: early childhood: exceptional educational needs; exceptional education: special fields; learning disabilities; emotional disturbance; mild-moderate mental retardation; and in a multicategorical program which involves certifications in learning disabilities, emotional disturbance, and mild-moderate mental retardation. If you would like to add these certifications to your regular teaching certifications, obtain program planning sheets from Room 400 or Room 446, COPS Building.

## Undergraduate Certification Programs in Exceptional Education

## Early Childhood: Exceptional Educational Needs

If you major in communicative disorders, early childhood education, or elementary education, and if you want to teach handicapped children under the age of six and work
with their parents, then take part in this add-on certification program.
To receive certification, fulfill these requirements:

1. Professional Preparation: Complete your undergraduate degree in early childhood education, communicative disorders, or elementary education (K-8), including these required courses: Communicative Disorders 266; Education 301, 308, 381, and 398; and Psychology 260 or Human Development 261;
2. General Exceptional Education: Successfully complete Communicative Disorders 366 and Education 351 and
3. Area of Specialization: Successfully complete Education $365,366,367,378$, and 8 credits of Education 398 (Student Teaching: Early Childhood: Exceptional Educational Needs).
Emotionally Disturbed
Take part in this add-on certification program if you are majoring in elementary or secondary education and want to work with emotionally disturbed children and youth in resource rooms, special self-contained classrooms, or as a consultant to teachers in regular classes serving these students.
To receive certification, fulfill these requirements:
4. Professional Education: Complete your undergraduate degree in elementary or secondary education, including these required courses: Communicative Disorders 266; Education 308 or 386 ; Education 326, 381, 383, and 398; methods courses for your instructional areas; and Psychology 260.
5. General Exceptional Education. Take 17 credits: Communicative Disorders 367, Education 351, 356, 362, 368, and 378; and
6. Area of Specialization: Take $18-21$ credits dealing with emotional disturbance: Education 353, 363, and 364, 5 to 8 credits of Education 398; and Psychology 360. Note: If you take Education 353, 363, or 364 for the first time and for only one teaching category, register for 3 credits. If you take Education 398 for only one teaching category, enroll for 8 credits.

## Exceptional Education-Special Fields

If you want to teach exceptional children music or physical education, then take part in this special fields certification program. In addition to completing certification in your special field, complete the following sequence of required courses dealing with teaching handicapped pupils in your field. For further information on these add-on certification programs, talk with the chair of the Health
Promotion/Physical Education Department or the Music Department.
I. Music Education: Successfully complete Education 351 and 354,4 credits of Education 398 (Student Teaching with Exceptional Children), and Music Education 390.
2. Physical Education: Successfully complete PEX 300, 315, 351, and one of these three courses. Education 353,354 , or 366 .

## Learning Disabilities

Take part in this add-on certification program if you are majoring in elementary or secondary education and want to work with learning disabled children and youth in resource rooms, special self-contained classrooms, or as a consultant to teachers in regular classes serving these students.
To receive certification, fulfill these requirements:

1. Professional Education: Complete your undergraduate degree in elementary or secondary education, including
these required courses: Communicative Disorders 266; Education 308 or 386; Education 326, 381, 383, and 398; methods courses for your instructional areas; and Psychology 260.
2. General Exceptional Education: Successfully complete Communicative Disorders 367; Education 351, 356, 362, 368 , and 378 ; and
3. Area of Specialization: Successfully complete the following courses with an emphasis in learning disabilities: Education 353, 363, and 364, as well as 5 to 8 credits in Education 398.
Note: If you take Education 353, 363, or 364 for the first time and for only one teaching category, register for 3 credits. If you take Education 398 for only one teaching category, enroll for 8 credits.

## Mild-Moderate Mental Retardation

Take part in this add-on certification program if you are majoring in elementary or secondary education, and you want to work with mild-moderately retarded children and youth in resource rooms, special self-contained classrooms, or as a consultant to teachers in regular classes serving these students in the schools.
To receive certification, fulfill these requirements:

1. Professional Education: Complete your undergraduate degree in elementary or secondary education, including these required courses: Communicative Disorders 266; Education 308 or 386; Education 326, 381, 383, and 398; methods courses for your instructional areas; and Psychology 260;
2. General Exceptional Education: Successfully complete Communicative Disorders 367, Education 351, 356, 362, 368 , and 378 ; and
3. Area of Specialization: Successfully complete the following courses with an emphasis in mild-moderate mental retardation: Education 353, 363, 364, and 398. Note: If you take Education 353, 363, or 364 for the first time and for only one teaching category, register for 3 credits. If you take Education 398 for only one teaching category, enroll for 8 credits.

## Multicategorical Special Education Teacher Preparation

Many schools now offer multicategorical programs for mild to moderately handicapped children. If you want to teach in these settings, complete the following curriculum for certification in learning disabilities, emotional disturbance, and mild-móderate mental retardation: K-8, $7-$ 12 , or K-12.
To receive certification, fulfill these requirements:

1. Professional Education: Complete your undergraduate degree in elementary or secondary education, including these required courses: Communicative Disorders 266; Education 308 or 386; Ed 326, 381, 383 and 398 ( 8 or more credits); 3 or more credits in methods courses for your instructional areas; and Psychology 260;
2. General Exceptional Education: Successfully complete Communicative Disorders 367, Education 351, 356, 362, 368 , and 378 ; and
3. Area of Specialization: Successfully complete Education 353 ( $3-7$ credits), Education 363 (3-7 credits), Education 364 ( $3-7$ credits), Education 398 ( $5-8$ credits in either learning disabilities, emotional disturbance, or mildmoderate mental retardation), and Psychology 360 (4 credits).
Also arrange to student teach in each disability area for which you seek certification. If you only want one certificate, student teach full-time for at least eight weeks. If you want all three certificates, student teach for at least
one semester, and spend at least eight weeks in a separate emotional disturbance placement. To obtain K-12 certification, arrange for placement in both elementary and secondary schools.

## Graduate Certification Programs in Exceptional Education

See The Graduate School.

## STUDENT TEACHING

Thomas J. Hayes, Director, Student Teaching and Laboratory Experiences
Room 112, College of Professional Studies Building Phone: (715) 346-2440 or -2449
In this final step in your preparation to teaching, you receive practical classroom experience in one of several schools which cooperate with UW-Stevens Point in providing this program. The Student Teaching Office places you in an appropriate school, based on such matters as:

- Your personal preferences,
- Availability of qualified cooperating teachers,
- Type of curriculum,
- Type of school organization,
- Number of student teachers in the area, and
- Distance from UW-Stevens Point.

Please don't plan to student teach in your home town, in a school from which you graduated, or in a school district in which a relative is currently employed or serves on the school board. Also, don't plan to take other classes while you are student teaching or interning. If you are a transfer student, you must do at least 9 credits of work on this campus before you can student teach.
The semester before you student teach, attend the orientation meetings we offer for you. At these meetings you learn about the requirements for student teaching, where you will teach, and the level at which you will teach.

## Student Teaching-Early Childhood Education

1. Be admitted to the Professional Education Program after earning 45 credits. Apply at the School of Education Office.
2. If you graduate after July 1990 , earn a 2.75 GPA in your major, minor, concentration, and education courses (or be in the upper half of your class) to student teach; earn a 3.00 to be a teaching intern.
3. Complete methods courses in early childhood education.
4. Receive the recommendation of the head of the School of Home Economics.
5. Present a medical statement indicating that you have been examined within the last year and are free from tuberculosis.
6. The semester before you student teach, submit your completed application forms by the date set by the Student Teaching Office.
7. Enroll in Education 398 (Student Teaching) for 16 credits. You will teach full days for a full semester-half the semester ( 8 credits) teaching in a kindergarten and half ( 8 credits) teaching in a preschool.

## Student Teaching-Elementary Education

Before student teaching at the elementary level:

1. Complete the student teaching application form.
2. Be admitted to the Professional Education Program after earning 45 credits.
3. If you graduate after July 1990, earn a 2.75 GPA in
your major, minor, concentration, and education courses (or be in the upper half of your class) to student teach; earn a 3.00 to be a teaching intern.
4. Complete techniques courses in elementary education.
5. Receive the recommendation of the head of the School of Education.
6. Present a medical statement indicating that you have been examined within the last year and are free from tuberculosis.
7. The semester before you student teach, submit your completed application forms by the date set by the Student Teaching Office.
Take your teaching methods courses before you student teach. In the second semester of your junior year (or later) enroll in Education 398 (Student Teaching) for 15 credits. Ordinarily, you will teach full days for a full semester-half the semester teaching in the primary grades and half in the intermediate grades. If you desire add-on certification in kindergarten, you will have to complete 8 credits of student teaching at the kindergarten level, either before or after the semester of student teaching in grades 1-8.
We invite you to apply for the intern program described later in this section.

## Student Teaching-Learning Disabilities

Take a minimum of 8 credits of student teaching in learning disabilities in addition to your regular elementary or secondary student teaching. Most people student teach half-days for a full semester, but you may also student teach full days for eight weeks.

## Student Teaching-Learning Resources

Complete a separate 5 -credit student teaching assignment for instructional resources.

## Student Teaching-Secondary Education

Apply at the Office of Student Teaching for admission to student teaching. Before student teaching at the secondary level:

1. Complete the student teaching application form.
2. Be admitted to the Professional Education Program. Apply at the School of Education Office.
3. Earn a 2.75 GPA in your major, minor, concentration, and education courses (or be in the upper half of your class) to student teach; earn a 3.00 to be a teaching intern.
4. Receive the recommendation of the chair of your major and minor departments.
5. Complete the techniques courses for the area(s) in which you plan to teach.
6. Present a medical statement indicating that you have been examined within the last year and are free from tuberculosis.
7. The semester before you student teach, submit your completed application forms by the date set by the Student Teaching Office.

## Student Teaching Plans

Plan A: Full Semester Student Teaching

1. Before student teaching, complete at least 75 percent of your work toward the major and all of your minor if you wish to student teach in the minor.
2. Register for $10-16$ credits of Education 398, Student Teaching.
3. Spend one semester student teaching full time in an approved cooperating school. Ordinarily, you will live in the community and attend faculty meetings, extra-
curricular activities, etc. You could be assigned two eight-week experiences in different subjects or the full semester on one subject.
4. Arrange for your own housing and meals while you are student teaching.
5. You may be asked to return to campus for a seminar or to confer with UW-Stevens Point instructors so that you gain further insight into the actual problems of teaching.

Plan B: Special Plan for Art Education Majors and Minors

1. Take all your education courses before you student teach.
2. Complete at least 75 percent of your coursework in your major and all of the coursework in your minor, if you wish to teach in it, before you student teach.
3. If you are majoring in art education, take 16 credits of student teaching for state certification K-12. You will spend 18 weeks student teaching: nine weeks at an elementary school and nine at a secondary school. Although we prefer that you teach at the elementary level first, you may student teach at the secondary level first.
4. If you are minoring in art education, take 8 credits of student teaching and plan to spend nine weeks teaching at the level in which you seek certification.
5. Note that student teaching at the junior high level counts toward secondary certification.

## Plan C: Special Plan for Communicative Disorders

If you are a graduate student in communicative disorders, you may take part in a practicum involving $10-15$ credits through the clinical semester.

## Plan D: Internship Elementary and Secondary

1. If you plan to teach at either the elementary or secondary level, you may enroll as a teaching intern.
2. Complete your required courses in professional education before you begin your teacher internship. If you are in secondary education, also complete at least 75 percent of the work in your major and all of the work in your minor if you wish to teach it.
3. As an intern, you are a paid member of a public school staff, and you spend an entire semester in a school system. During this time, you are involved in experiences covering the entire range and variety of a teacher's duties in and out of the classroom.
4. The number of internships is limited to the number of requests we receive from school systems.
5. Other considerations:
a. To enter the internship program, earn a cumulative GPA of 3.00 or better and a GPA of 3.00 or better in your major. If you wish to teach in your minor, earn a grade point average of 3.00 in it as well.
b. Do not take on-campus courses during the semester of your internship.
c. We may ask you to take part in a summer conference.
d. Apply for a special intern-teaching license which costs $\$ 75$.
e. You may be assigned to either the fall or spring semester.
f. Attend the orientation program presented by the cooperating school system.
g. Contact the Student Teaching Office by February of the school year before you want to intern. In February we assign internships for all of the following school year.

## Courses in Education

Education courses are also listed under the following headings: Art Education, Communication Education, Communicative Disorders Education, Computer Science Education, Dance Education, Drama Education, Early Childhood Education, English Education, Foreign Language Education, Home Economics Education, Instructional Resources, Mathematics Education, and Music Education.
All course descriptions are general; content, field trips, and resources may vary according to advances in the discipline, availability and accessibility of resources, and the needs of the students in each course and section.
New teacher certification requirements will go into effect in the fall of 1987 and will affect anyone entering the program after that time or graduating after July 1990. For further details, see the School of Education Advising Office, Room 446, COPS.
100. Introduction to Education. 2 cr. Exploring education and teaching in contemporary society, including new approaches and innovations, and futuristic trends; lectures, seminars, field experience, and observing and tutoring in schools. Open to all students. Required for concurrent or subsequent admission to the Professional Education Program.
241. Creative Activities for Young Children. 3 cr . The philosophy and role of the creative activities (music, drama, dance, literature, and art) in early childhoodkindergarten education; emphasis on the creative activity as it relates to developmental stages. At least one hr lab per wk. Prereq: So st.
-301. Techniques in Kindergarten Education. 3 cr. Comparative study of kindergarten philosophies and curricula; study of materials, techniques, and resources appropriate for all areas of kindergarten education. Observations required. Prereq: Admission to the professional education program.
-304. Techniques in Language Arts in the Elementary and Middle School. 3 cr. Principles, aims, methods, and techniques of teaching English with attention to grammar and usage, handwriting, spelling, listening, speaking, and writing.
-308. Developmental Reading in Elementary and Middle School. 3 cr. Materials and methods of.instruction in the field of reading; readings, basic instructional approaches, research, and readiness in the field of reading instruction.
311. Techniques for Intermediate and Upper

Grades-Mathematics, Social Studies, Science. 4 cr. Principles, aims, methods, and techniques. Three hrs lec; observation and lab hrs to be arranged.
320. Techniques in the Elementary School-Guidance. 3 cr . Policies and practices of organized guidance in the elementary school; personal, social, and educational adjustment problems and needs. Prereq: 383 and teaching. experience.
321. Techniques in the Elementary School-Speech. 3 cr. Methods, materials, and philosophy for the teaching of speech in the elementary school; curricular correlation.
-324. Techniques in the Elementary School-Social Studies:
3 cr . Principles, aims, methods, techniques, and field experiences. Two hrs lec, two add'l hrs to be arr per wk.
-325. Techniques in the Elementary School-Science. 3 cr . Principles, aims, methods, techniques, and field
-Indicates that admission to the Professional Education Program or to the School of Education is a prerequisite for the course.
experiences. Two hrs lec, two add'l hrs to be arr per wk, 326. Corrective Reading. 3 cr . Preventive and corrective measures in the teaching of reading in grades one through eight; diagnosis of causes and the application of corrective techniques. Prereq: 308 or cons instr.
327/527. Teaching Reading to Gifted and Talented Students. 3 cr . Procedures and materials for teaching reading to gifted and talented learners in grades $K$ through 12; development by students of appropriate teaching materials, based on current research. Prereq: 308, or 386, or cons instr.
328. Reading in the Content Areas. 3 cr . Identification of skills essential for content area instruction; investigation of related research and development strategies for teaching reading comprehension and study skills; procedures for curriculum and program development for classroom teachers and reading specialists. Prereq: 308 or 386 or English 381.
-330. Techniques in Secondary Education-Accounting. 2 cr. Aims, methods, materials, techniques, planning, organization, testing, etc., as applied in high school teaching.
335. Techniques in Secondary Education-Mathematics. 3 cr. Aims, methods, materials, techniques, planning, organization, testing, and field experience.
$\bullet$ 337. Techniques in Secondary Education-Science. 3 cr . Aims, methods, materials, techniques, planning, programs, organization, testing, and field experiences.
-338. Techniques in Secondary Education-Shorthand and Typing. 2 cr . (See description under 330.)
-339. Techniques in Secondary Education-Social Studies.
3 cr . (See description under 337.)


350/550. Organization and Administration of Outdoor Education. 3 cr. Objectives, scope, and administrative aspects of outdoor education in the curriculum, including the role of school forests, day camps, school gardens, community resources, and other outdoor educational techniques.
351/551. The Exceptional Child. 3 cr. An introduction to characteristics of children with exceptional educational needs; designed to aid students in recognizing and interpreting the significant developmental deviations of handicapped and gifted children. Prereq; Psychology 110.
352/552. Workshop in Mental Health. 4 cr. For classroom teachers interested in improving their teaching skills through a better understanding of the role of good mental health in the learning situation; the areas covered will include learning theory, mental health education, emotional growth, and special school and community services for the emotionally handicapped.
353/553. Nature and Needs of Exceptional Children. $3-7$ cr, Introduction to needs, theories, and programming practices in educating exceptional children who are learning disabled, emotionally disturbed, mild-moderately retarded. A subtitle will be added to designate area(s). Prereq: 351 or con reg.
354/554. Mainstreaming the Exceptional Student. 3 cr. Principles, procedures, and methods in mainstreaming the student with exceptional needs into the regular classroom. Prereq: $351 / 551$ or cons instr.
355/555. Methods of Teaching Children with Exceptional Educational Needs. 1 or 2 cr . Knowledge of methods of teaching students with EEN in the regular classroom; classroom observation and participation. Prereq 351/551.
356/556. Diagnostic Testing. 2 cr . A study of diagnostic tests used in educational assessment of students and necessary skills for utilization. Prereq, $351 / 551$ or cons instr.
360/560. Workshop in Elementary Education. 2, 3, or 4 cr. Problems of teaching in various curricular fields in the elementary school. A subtitle will be added to describe the area considered each time the course is offered.
361/561. Identification and Use of Community Resources. 2 or 3 cr . Identifying resources available in any community, including people, places, natural and manmade materials; assessing their potential use for instructional purposes; designing lessons and activities for their utilization both in and outside the classroom. For 3 cr the course will include a media component based upon effective resource utilization. Prereq: Instructional Resources 331 or cons instr for 3 cr .
362. Classroom Management Techniques and Strategies for Children with Exceptional Educational Needs. 3 cr. A comprehensive course that prepares teachers to effectively deal with discipline problems of children and adolescents. Emphasis on behavior modification techniques, with additional focus on the psychodynamic, sociological, and ecological models of classroom management.
363/563. Individual Educational Assessment of Exceptional Children. 3-7 cr. Theory and practice in individual assessment of exceptional children's specific needs and interpretation of findings for planning individual educational programs for those who are learning disabled, emotionally disturbed, and mild-moderately retarded. A subtitle will be added to designate area(s). Prereq: 351 or con reg.

364/564. Curriculum and Methods for Teaching
Exceptional Children. 3-7 cr. Instructional procedures, curriculam, methods, and materials in the instruction of learning disabled, emotionally disturbed, and mildmoderate retarded individuals. Subtitles will be added to designate area(s) and level(s). (Sec. 1-elementary; Sec. 2secondary). Prereq: 351 or consent of instructor.
365/565. Methods in Teaching Young Children with Exceptional Educational Needs. 3 cr. An analytical approach that emphasizes adapting methods and materials to individual educational programs; implementation and evaluation of the programs.
366/566. Introduction, Identification, and Assessment of Young Exceptional Children. 3 cr. Characteristics and needs; procedures in screening and assessment of young exceptional children. Prereq; $351 / 551$.
367/567. Educational Programming for Young Exceptional Children. 3 cr. Curriculum, organization, and administration of programs for young exceptional children. Prereq. $366 / 766$, or cons instr.
368/568. Career and Vocational Education for Exceptional Children. 3 cr. Procedures and methods in assessing needs, adapting curriculum, and providing career programs for students with exceptional educational needs. Prereq: $351 / 551$, or cons instr.

370-373/570-573. Workshop in Education. 1 to 3 cr. Problems of teaching in the elementary and secondary schools. A subtitle will be added each time the course is offered. Prerequisites may be stated for each subtitle.

## 371/571. Aerospace.

372/572. Techniques of Outdoor Education. Materials, methods, planning, and curricular development as applied to outdoor education, including practicum experiences. Prereq. 350/550 or con reg.
374/574. Workshop in Education: Group Dynamics Within the Secondary School. 2 or 3 cr. Group dynamics and leadership skills within small and large classes, theory and techniques in promoting optimal involvement and learning; major focus on the comparison of teacher roles within large and small groups.
378. Parent, Home, and Agency Involvement in Educating Exceptional Children. 3 cr. Techniques in working with parents and families; involving home and other agencies in total programming for the education of exceptional children. Prereq: 351.
380. Principles of Education. 2 cr. History and philosophy of public education and their effect on the role of the school in our society; the relationship of the teacher to the pupil, the school, the community, and the profession. Prereq 100 or con reg.
-381. Educational Psychology. 3 cr. Psychological bases of educational procedures and practices; the educational implications of the characteristics of physical and mental growth, emotional behavior, motivation, learning, individual differences, and human relations. Prereq: Psychology 110.
382. Philosophy of Education. 3 cr. Educational philosophies underlying the various methods of teaching and of organizing subject matter; the relation of political and social philosophies to national systems of education, to different plans of school organization, and to various types of schools.
383/583. Tests and Measurements. 3 cr. A brief history of
the testing movement; functions of tests, methods by which they are applied, scored, and results tabulated; construction of objective tests and improvements of teacher-made tests.

## 384/584. Humans, Computers, and Educational

Possibilities. 3 cr . A comparison of the abilities of humans and sophisticated machines: definition, difference, strengths and weaknesses; computer capability; social costs and risks. GDR: TCI BA BS
385/585. Teaching the Early Adolescent. 3 cr .
Characteristics of early adolescents and instructional strategies appropriate to their needs.
386/586. Reading in the Secondary School. 3 cr. Materials and techniques of teaching developmental reading in the secondary school.
387/587. Corrective Reading in the Secondary School. 3 cr . Procedures for analysis and correction of students' reading problems for the teacher in the subject matter areas. Prereq: 386.
388/588. Interpersonal Relations. The developmental effects of different types of relationships between students and teachers, the relationship between types of interactions and student self-concept, and methods of improving interpersonal relations.
389/589. Issues in Vocational and Technical Education. 2 or 3 cr . The administration and organization of vocational and adult education on the national, state, and local levels.
391. Teaching Minorities in the Classroom. 3 cr . Minority groups in respect to differences in race, color, religion, economics, ethnic background, or sex, aimed at improving self-concept, social position, and success in school. (When only one group is studied it will be identified in a subtitle.) May be repeated once, with a different focus for a total of 6 credits.
394/594. Alternative Education. 1 or 2 cr. Forms of alternative schools, innovative educational programs, and nontraditional approaches currently used in school systems and private schools. Prereq: Admission to the School of Education or certification as a teacher. (Undergrad, 1 cr , orientation; 2 cr , development of a proposal. Grad, 1 cr , in-depth investigation of one form currently in operation; 2 cr , on-site investigation and proposal for change.)
398. Student Teaching. L.D. $5-8 \mathrm{cr}$; E.D. $\mathbf{5 - 8} \mathrm{cr}$; M.R. $5-8$ cr . Observation and teaching under the guidance of cooperating teachers; emphasis on guided teaching experiences in actual classroom situations. A subtitle will be added to indicate the field in which the student teaching was done.
399. Special Work. Upperclass students in the School of Education may, by agreement with the Associate Dean of the School of Education, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project.
701. Philosophical Foundations of Education. 3 cr . Critical issues in education; their ideological and social bases. Prereq: Teacher certification or cons instr.
702. Psychological Foundations of Education. 3 cr.

Psychological background relative to human abilities and behavior; individual differences; human relations; learning and evaluation with implications for teaching.
703. Theories of Learning. 3 cr . Classical and contemporary theories of learning; critical analysis of learning theories with implications for classroom learning situations.
704. Strategies for Discipline and Classroom Management. 3 cr . A practical comprehensive course to help teachers develop effective strategies for solving individual discipline problems; survey of several models and interaction techniques.
705. Basic Statistical Methods in Education. 3 cr. Fundamentals of statistical analysis with application in education and other fields according to needs of students; critical ratios and the test for paired, pooled, and unpooled samples; straight line and curvilinear regression for simple and multiple correlation of variables; introduction to the use of probability, simple and two-way analysis, chi square, and other nonparametric statistics. Prereq: $383 / 583$, or 751 ; and cons instr.
706. Experimental and Statistical Methods in Education Research. 3 cr . Applicability, limitation of experimental method in education; simplified probability, classical, Bayesian, parametric and nonparametric statistics; use of calculator and computers; experimental designs; literature reviews.
707. Educational Research. 3 cr . Study of educational research procedures and development of an educational product or paper, involving problem identification, literature review and analysis, description, and evaluation.
711. Seminar: Problems in Teaching, Elementary, 3 cr . Definition of problems and issues, critical examination of the research literature, review of trends in curricula and methods, and planning of experimental investigation; open to elementary school teachers with certification.
712. Seminar: Problems in Teaching, Secondary. 3 cr . Definition of problems and issues, critical examination of the research literature, review of trends in curricula and methods, and planning of experimental investigation; open to experienced secondary school teachers with certification.
713. Seminar: Problems in Teaching, Music. 4 cr . Definition of problems and issues, critical examination of the research literature, review of trends in curricula and methods, and planning of experimental investigation; open to experienced music teachers with certification.
715. M.E.P.D. Seminar. 1 cr. Focus on educational research, resources, and final option requirements; required of all M.E.P.D. candidates.
716. The M.E.P.D. Product. 1 to 3 cr . A demonstration of professional expertise which requires approval by the advising committee; final option for M.E.P.D.
720. Research Studies in Elementary Education. 3 cr. A survey of research in reading, science, social studies, language arts, mathematics, music, art; administration, policy development, and curriculum organization.
721. Fundamentals of Curriculum. 3 cr. Fundamental ideas in developing curriculum; emphasis on the human aspects in curriculum design.
722. Elementary School Curriculum. 3 cr. Basic concept of curriculum; the relationsip of foundation areas to the problems of curriculum development; modern trends in developing educational programs for children.
727. Mastery Teaching. 2 or 3 cr . Analysis of classroom decision-making; practice in decision-making related to the teaching act; management of student behavior motivation, transfer of learning, retention, critical attributes of lessons, and principles of learning.
728. Clinical Supervision of Instruction. 2 or 3 cr . An introduction to script-taping and development of skill in script-taping of classroom teaching. Utilization of six levels
of conferencing as developed by Madaline Hunter. Practice in conducting conferences at each of the six levels to provide feedback to student teachers (for cooperating teachers) and with classroom teachers (for building principals and supervisors).
731. Mathematics in the Elementary School. 2 or 3 cr. The teaching of modern arithmetic with emphasis on curriculum content as well as method.
732. Language Arts in the Elementary School. 3 cr . A survey and critical appraisal of programs, basic practices and trends; emphasis on oral and written expression including spelling and handwriting; specific study of individual problems.
733. Science in the Elementary School. 3 cr. A survey of the philosophy and nature of a science, new elementary science curricula, innovative and experimental problems in elementary school science, and research in science education in the elementary school.
734. Social Studies in the Elementary Schools. 3 cr. Curriculum trends and approaches; new content, materials, innovations; and needed research in the field.
735. Leadership in Curriculum Change. 3 cr. Study of specific curriculums, including instructional strategies and models of instruction, and the development of leadership skills in the development, implementation, and supervision of the specific curriculum(s).
741. Improvement in Reading. 3 cr. The various trends and programs in developmental reading, the reading curriculum and the related research. Prereq: 308.
746. Diagnosis and Evaluation of Reading Abilities. 3 cr . Formal and informal evaluation instruments in reading; course experiences in testing to identify remedial readers, construction of a diagnostic profile, and written interpretations of test results. Prereq: 308, 741.
747. Remedial Reading. 3 cr. Materials and techniques of remedial reading; for classroom teachers, reading specialists, and administrators of reading programs who are responsible for instruction, curriculum development, and leadership in this area. Prereq, 308, 741, 746.
748. Remedial Reading Practicum. 3 cr. Clinical appraisal of remedial reading programs, interpretation of the findings, and the development and execution of corrective measures. During the instruction of a remedial reader each student will conduct continuous analysis and evaluation

leading to a final report describing the nature of the reader, the techniques and materials used for reading improvement, and with recommendations for post-clinical reading instruction. Prereq: $308,741,746,747$.
749. Seminar in Reading. 3 cr. The nature and treatment of problems in reading instruction. Prereq: Cons instr.
750. Supervision and Administration of Reading Programs.

3 cr . Organization, administration, supervision, and improvement of school-wide reading programs. Prereq: Cons instr.
751. Advanced Tests and Measurements. 2 or 3 cr. Testing batteries and systems, factor analytic studies, regression prediction, traditional and modern theories, educational change.
752. School Law for the Teacher. 3 cr. The impact of statute and court decisions upon teachers; the effect upon student rights, discipline, tort liability, financing, private and religious education, and equal opportunity.
755. Values and Clarification. 3 cr. Methods for formulating, clarifying, and evaluating beliefs and attitudes toward others and ourselves as we relate to others; understanding of how we determine what is important to us as individuals in a diverse society.
756. Guidance in the Elementary Schools. 3 cr. Instruments and techniques used in guidance such as observation, concepts of individual appraisal, and methods in group procedures.
758. Education for Cooperating Teachers. 3 cr. The student teaching program as one phase of the total undergraduate education program, with emphasis upon orienting student teachers and guiding them in planning, teaching, and evaluating learning activities; for in-service teachers who are or wish to be cooperating teachers.
760. M.A.T. Seminar: Secondary 3 cr. Reflection, analysis, hypothesizing, synthesis, and evaluation of concurrent experiences, dynamics of teaching-learning process, and professional behavior, related research; designs for possible research; curriculum modification, restricted to students in MAT program.
763. Secondary Instruction I. Methodology and Techniques. 3 cr. Instructional strategies; multi-media materials and approaches; classroom management. Prereq: Acceptance in the MAT program or cons instr.
764. Secondary Instruction II. Special Problems and Materials. 3 cr. Methods and materials in area of specialization. Prereq: Acceptance in the MAT program or cons instr.
765. Professional Experience: Secondary, 8 cr. Student is assigned to a selected team of at least two teachers, a school administrator, and a member of the university graduate faculty, for teaching in the area of specialization and related experiences; restricted to students in the MAT program.
770. The Adviser's Function-Student Activities Program. 1 cr . The role of student activities with particular emphasis on the function of the adviser.
771. Supervision of Instruction. 3 cr, A study of evolving concepts and strategies of supervision in schools; supervision as an essential function for curriculum development and the improvement of instruction; the role of supervision in facilitating educational change, giving it direction and increasing its effectiveness; training in and application of systematic observation and data analysis systems.
775. Identification and Assessment of Young Exceptional Children. 3 cr. Development of skills in identification and assessment procedures in specifying needs and structuring program objectives for young exceptional children.
776. Administrative and Curricular Programming for Young Exceptional Children. 2 cr. Planning, developing, administering, and evaluating curricular and instructional programs for young exceptional children.
777. Methods and Materials in Teaching Young

Exceptional Children. 3 cr. Instructional methods and strategies designed to teach and habilitate young exceptional children.
778. Parents, Home, and Agency Involvement in Educating Exceptional Children. 3 cr. Procedures in preparation/counseling of parents and staff; practice in involving home and other agencies in total programming for education of exceptional children.
779. Field Experience in Exceptional Education. 1 to 4 cr. Observation and participation experience related to developing the competencies/skills in exceptional education courses. A subtitle designating the specific area will be added to the student's record.
780. Curriculum and Educational Programming for Exceptional Children. 3-7 cr. Instructional methods and processes of instructing learning disabled, emotionally disturbed, and mild-moderate mentally retarded individuals. Subtitles will be added to designate areas and levels. (Sec. 1-elementary; Sec. 2-secondary.)
781. Practicum in Teaching Exceptional Children. 4-8 cr. Professional practice in teaching children with exceptional needs. A subtitle designating the specific area will be added to the student's record.
782. Seminar: Problems in Exceptional Education. 3 cr . Basic issues, critical reading, and critique of current research, research design, current trends and methodology, and writing of a seminar paper in exceptional education.
790. Analysis and Improvement of Educational Programs. 1 to 3 cr . Topic and number of credits will be announced when the course is offered. Designed for in-service needs of school districts. Prereq: Teaching experience.
791. Introduction to Gifted/Talented Education. 3 cr . Nature and needs of the gifted/talented learner. Overview of history in gifted education/definitions/identification strategies, and program provisions. Introduction to current literature in gifted education. Introductory course in a sequence of courses preparing a person to be competent in the teaching of gifted learners.
792. Curriculum for the Gifted and Talented. 3 cr . Overview of curriculum planning, teaching models, and appropriate teaching strategies/methods for gifted learners. Sample lessons in the various teaching models will be developed and current literature in the field will be examined. Prereq: 791 or cons instr.
793. Issues in Gifted/Talented Education. 3 cr. Current issues and concerns in gifted education will be identified and examined. Content will vary depending on students' interests and needs. Prereq: 791 or cons instr.
794. Creativity in the Classroom. 3 cr. Theory of creativity within a hierarchical model. Understanding various theories of creativity. Application of theories to classroom function will be developed and practiced.
795. Practicum in Teaching Gifted/Talented Learners. 3 cr . Practical experience in teaching gifted/talented students. Students will use teaching methods appropriate for the
gifted in devloping instructional activities. Prereq: 791 and 792 or cons instr. Course may be taken twice with cons instr and adviser.
796. Independent Study. 1 to 3 cr . Planned study designed to enrich and supplement the student's preparation in the area of specialization; regularly scheduled conferences with a staff supervisor.
799. Thesis. 2 to 6 credits.

## ENGLISH <br> (College of Letters and Science)

Stephen Odden, Chair
Room 486, Collins Classroom Center
Phone: (715) 346-4757
Faculty: Behm, P. A. Bloom, T. Bloom, Buchholz, Buggs, Burress, W. Clark, De Smet, Dietche, Dieterich, Dorgan, Dixson, Doxtator, Garr, Gifford, H. Heaton, Holborn, Lawlor, L. Lewis, Mickelson, Robert K. Miller, Missey, Montgomery, N. Moore, Odden, D. Pattow, R. Pattow, Peplinski, Rose, Shumway, L. Spangenberg, Sparapani, Stelmahoske, M. Stewart, J. Stokes, R. Stokes, Watson, K. White, Young.

## English Major (General)

Consists of 32 credits beyond freshman English, including English 200 and electives from the specified categories listed below. (Note that some courses count in more than one category.) Eighteen credits must be in courses numbered 300 and above.

1. Language, 3 credits: English $240,342,344,346$.
2. Survey of British and American literature, 12 credits, evenly distributed between British and American literature: English 211, 212, 213, 214. (You can substitute any upper division 'period course' covering the same period.)
3. Masters, 6 credits: English 330, 333, 334, 336, 385.
4. Literature: a 3-credit 300 -level literature course.
5. Unspecified electives: courses listed above or other English offerings, except as noted; or comparative literature. (You may use comparative literature courses if they are judged to be consistent with the aims of the department, and you obtain consent from the department chair before registration.)

## English Major for Teacher Certification

Consists of the requirements for the English major above plus the following:

1. Writing, 3 credits: English 250, 251, 253, 254, 350, 351, 352 or 353. (English 354 will NOT fulfill this requirement.)
2. The following courses are recommended: English 345, 357, 381. If you are preparing to teach, you may substitute English 345 for the required language course listed for the English major and English minor. English 375 may count as a literature course under the English minor.

## English Minor

Consists of 24 credits beyond freshman English, including English 200 and electives from the specified categories listed for the English major above. Twelve credits in courses numbered 300 and above must be included.

## English Minor for Teacher Certification

Consists of the English minor plus the requirements for teacher certification listed above.

## Writing Minor

Consists of 24 credits beyond freshman English, including English 200 and electives from the categories specified below. Twelve credits must be in courses numbered 300 and above.

1. Writing, $12-15$ credits: English $250,251,253,254,350$, $351,352,353,354,358,498$ (up to 3 credits). The chair may approve up to 3 credits in writing courses from other departments. No more than 3 credits of such courses and English 498 may count toward the writing minor Portfolios from courses outside of English which are submitted for 3 credits toward the writing minor must contain a minimum of 5,000 words of completed work and be of " $B$ " quality or better in the judgment of the English department chair.
2. Language, 3 credits. English 240, 342, 344, 346.
3. Literature, 3 to 6 credits: English 103 to $170 ; 203$ to 214, 280 to 336,360 to $366 ; 378,380,382,383,385$.

## English Major with a Writing Minor

Requires 48 credits beyond freshman English, including the specific requirements for the "general" major or the "teaching' major as well as the specific requirements for the writing minor. Include 15 credits of writing courses.

## Notes:

1. English 345,375 , and 381 count toward the major/minor in English or the minor in writing only for those seeking teacher certification, or for those who need them as collateral requirements in other departments.
2. English 274 and 275 will not count toward the major or minor unless you need them as collateral requirements, such as for a minor in library science or a major in elementary education. They do not count toward the humanities requirement.
3. To be approved for graduation with an English major or minor you must have a cumulative grade point average of 2.00 in the major/minor including collateral courses. The cumulative GPA is based on your total academic record in English regardless of a declaration of "academic bankruptcy."
4. Sophomores may take a course at the 300 -level with the approval of the department chair. English majors may take 200 -level courses as second semester freshmen.
5. The English Department urges you to take English 200 as early as possible in your English and/or writing career.
6. No more than 3 credits from $157,257,357$ and 399 will count toward the major.
7. You can use up to 3 credits of English 498 to satisfy the English major requirement, and the English, writing, and technical writing minors. (The technical writing minor is described under that title later in this catalog.)

## Notes for Prospective Secondary School Teachers:

8. Teacher certification requires a reading course. English 381 fulfills this requirement and is highly recommended for prospective English teachers.
9. The writing minor is not a certifiable teaching minor, but it is generally favored by public school employers as a complement to the English major. Other complementary minors are a foreign language, communication, theatre arts.
10.The School of Education requires a grade point average of at least 2.50 in the major and minor fields for admission to student teaching, and 2.75 for internship.

If you will be graduating after July 1990, you must earn a 2.75 GPA to be admitted to student teaching and 3.00 GPA for internship.
11.The requirements for teacher certification in "English as a Second Language", are in the section on Foreign Language in a later section of this catalog.

## English Assessment and Placement Procedure.

Each entering freshman will complete the freshman English entrance assessment. This writing assessment is an essay you write when you attend an orientation-registration session at this campus. According to the writing competence you demonstrate, you are placed in one of three categories:

1. English 050. A developmental English course for students who need practice in fundamental language skills. After successful completion of English 050, you enroll in English 101.
2. English 101. The first course in the required freshman English sequence. The course emphasizes the improvement of skills in critical reading, logical reasoning, and effective writing, After successful completion of English 101 , you enroll in English 102.
3. Exempted. If your freshman writing assessment indicates superior writing ability, you may be exempt from English 101. If you then complete English 102 with a grade of "B" or better, you will be given 3 credits retroactively for English 101 , as well as the 3 credits for English 102.

## Courses in English

50. Developmental English. 3 cr. Required of students whose placement test scores indicate a need for practice in fundamental language skills. Three hrs lec per wk, additional lab work may be arranged. Pass-Fail ONLY; course may be repeated until successfully completed, credits do NOT count toward a degree. Upon successful completion, students will normally enroll in English 101.
51. Independent Writing. 1 cr. Pass-Fail ONLY.

Individualized program for writing improvement for
English 050 students, taught in conjunction with the Writing Laboratory. Credits do NOT count toward a degree. May be repeated as often as needed. Students who place in English 050 may not enroll in English $157 / 257 / 357$ until they have successfully completed English 050.
101. Freshman English. 3 cr. Critical reading, logical thinking, and effective writing, Students will write frequently in and out of class, employing specific rhetorical strategies for a variety of purposes and audiences. Prereq: 050 or satisfactory placement test score. GDR: ENGL
102. Freshman English. Analytical reading and writing and the methods of inquiry common to various academic disciplines. Students will write frequently in and out of class, demonstrating their ability to use suitable sources of information and appropriate methods of documentation. Prereq: 101 or exemption by examination. GDR.ENGL
103. The Myth of .. 1 to 3 cr. (The topic will be announced for each offering.) The origin and development of a particular myth as it is embodied in folk tales and/or drama, film, novels (e.g. the myth of the Great Lover, the Doctor, the Jew, the Politician), Only 3 cr of $103 / 203 / 303$ may be applied toward the major or minor. GDR:HU2
106. Reading Fiction, 1 to 3 cr, An opportunity for students to read, discuss, and evaluate outstanding works of fiction. GDR:HU2
108. Reading the Drama. $1-3 \mathrm{cr}$. Oral reading and discussion of one play a week from the body of dramatic literature. The plays read will be chosen by the class. May be taken for credit twice: once each as 108 and as 308.
(See 308.) GDR:HU2
142. Basic English Grammar. 3 cr . Practice in identifying and using the structural features of written and spoken standard English. Does not count toward the English major or minor.
157. Independent Writing. 1 cr . Pass-Fail ONLY. An individualized program for writing improvement based on student needs and personal objectives, taught in conjunction with the Writing Laboratory. May be repeated twice, for a maximum of 3 cr among 157, 257, 357. (See statement under 057.)
170. Folklore. $1-3 \mathrm{cr}$. Introduction to folklore in its literary forms with reference to the ballad, the folk tale, and folk sayings. GDR:HU2
*200. Introduction to the Study of Literature. 3 cr . A study of literature, emphasizing the development of the student's critical vocabulary, recognition of the various forms of literature, and rudimentary analysis of selected works. GDR:HU2
*203. The Myth of ... 1 to 3 cr . (The topic will be announced for each offering.) See description under 103. GDR:HU2
*211. English Literature (Br). 3 cr. Emphasis on the major writers from Beowulf through pre-Romantics, stressing insight into the works. GDR:HU2
*212. English Literature (Br). Emphasis on the major writers from the Romantics to the present, stressing insight into the works. GDR:HU2
*213. American Literature (Am). 3 cr . Emphasis on the major writers from Emerson through Twain, stressing insight into the works. GDR:HU2
*214. American Literature (Am). 3 cr . Emphasis on the major writers from James to the present, stressing insight into the works. GDR:HU2
*240. Introduction to Linguistics. 3 cr . Fundamental concepts and methods of the scientific study of languages in their structural, historical, and geographical aspects.
*250. Expository Writing. 3 cr . Practice in descriptive, narrative, analysis, and persuasion, including report writing. Prereq: Successful completion of freshman English, or cons chair. (Some sections may have a particular emphasis which will be listed in the timetable; e.g. "Legal Writing.")
*251. Business Writing, 3 cr . Practice in writing business letters, memos, proposals, reports and resumes, as well as practice reading business-related materials.
*253. Introduction to Creative Writing. 1-3 cr. Training and practice for the beginning writer in the various forms of poetry and fiction; class discussion of student work.
*254. Editing and Publishing. 3 cr . Writing, editing, and preparing materials for publication, including consideration of reader/editor appeal, ways to market manuscripts.
*257. Independent Writing. 1 cr . Pass-Fail ONLY. Same description as for 157.
260. Computer Aids for English Studies. 1 cr . A four-week module designed for the English major or minor. An introduction to the uses of computer software in the study of English language and literature.
*274 Literature for Early Childhood. 3 cr . Emphasis on the reading, selection, and presentation of materials suitable for the preschool child. (See note 2 above.)
*275. Children's Literature. 3 cr . Emphasis upon the reading, selection, and presentation of materials suitable for the various grades in an elementary school. (See note 2 above.)
*280. American Indian Literature (Am). 1-3 cr. Literature about the American Indian from oral and written materials by Indian authors, and from materials by other American writers. GDR:HU2
*282. Black Literature. $\mathbf{1 - 3} \mathrm{cr}$. A critical study of works by black writers (e.g., Americans, Africans, West Indians). GDR:HU2
*283. Mythology in Literature. 1-3 cr. The basic mythos of creation, the flood, man's fall, the Olympians and their Roman counterparts, and the stories of myth and history which form the basis of the literary expression of Western culture; emphasis on the Graeco-Roman, Judeo-Christian, and Norse myths, as they appear in selected poetry, novels, and plays. GDR:HU2
*285. Women in Literature. 3 cr . Virgin, seductress, madonna, whore, lover, castrator, frail vessel, wonder woman, the other half, the second sex: who is she Woman?; an examination of the literature to determine how women are depicted in Western cultural tradition, how images of women have developed and been perpetuated, and how they shape a woman's sense of who she is and a man's idea of what she should be. GDR:HU2
*288. The Literature of Human Love and Sexuality. $1-3 \mathrm{cr}$. The literature of love, using such representative works and authors from various cultures and times as Lysistrata, the Song of Solomon, Ovid, Chaucer, Donne, Swift, DeSade, D. H. Lawrence, and James Joyce. GDR:HU2
*289. Popular Literature. $1-3 \mathrm{cr}$. Selected topics (e.g., Frontier Literature, Sports Literature, Speculative Fiction, Mystery Literature) from literature with a general appeal, with emphasis on a close reading of the texts. A subtitle will be specified each time the course is offered; may be taken for credit more than once under different subtitles. GDR:HU2
303. The Myth of... $1-3 \mathrm{cr}$. (The topic will be announced for each offering.) See description under 103. GDR:HU2
308. Reading the Drama. $1-3 \mathrm{cr}$. Same as 108 , offered for students eligible for courses numbered 300 or above. May be taken for credit twice: once each as 108 and as 308. GDR:HU2
309. Forms and Modes in Literature. 1-3 cr. Selected works of several writers as examples of a form or mode, to be determined by special interest of the faculty member offering the course. A subtitle indicating the form or mode (e.g., the Parable in Modern Literature) will be added each time the course is offered. May be repeated under different subtitles.
310. The Modern Short Story. $1-3 \mathrm{cr}$. Representative short stories of world literature with emphasis on literary structure, form, and theme. GDR:HU2
311/511. The English Novel (Br). 3 cr. English novels from (a) early 1700 s to 1880 , including works from such authors as Defoe, Fielding, Sterne, Austen, Dickens, and George Eliot; or (b) 1880 to World War II - Hardy, Joyce, Conrad, Lawrence, and Woolf. May be taken once for each period. GDR:HU2

312/512. Modern Drama. 2 or 3 cr. Representative dramas of world literature from Ibsen to the present; emphasis on literary structure, form, and theme. GDR:HU2
313/513. The American Novel (Am), 3 cr. American novels from (a) late 1700 s to 1900 , including works from such authors as Hawthorne, Melville, James, and Twain; or (b) 1900 to World War II - Crane, Dreiser, Hemingway, Fitzgerald, and Faulkner. May be taken once for each period. GDR:HU2
314/514. Modern Poetry. 2 or 3 cr. The study of 20 th century poetry beginning with the works of Yeats, Pound, and Eliot. GDR:HU2
319/519. The Novel Since 1850. 3 cr. Representative novels of world literature with emphasis on literary structure, form, and theme, including works from a variety of cultures, GDR:HU2
323/523. British Literature Before 1790, Excluding Drama.
(Br). 3 cr. Development of English poetry and prose fiction from (a) 1485 to 1660 through study of such authors as More, Sidney, Marlowe, Spenser, Shakespeare, Donne, and Jonson; or (b) from 1660 to 1790 - Dryden, Defoe, Swift, Pope, Sam Johnson, and Goldsmith. May be taken once for each period.
324/524. The Romantic Movement (Br). 3 cr. The development of romanticism in English poetry and prose, its theory and creation, including a survey of the preRomantic Movement.
325/525. Victorian Literature (Br). 3 cr. Works which reveal the crisis of the individual in an age torn by conflicting values, with emphasis on the major poets and essayists including Tennyson, Browning, Arnold, Carlyle, Newman, and Ruskin.
327/527. Victorian Literature in Transition (Br). 3 cr. Development of the modern spirit in such writers as Hardy, Conrad, Ford, Shaw, Yeats, and the Aesthetes and Decadents.
329/529. The American Renaissance (Am). 3 cr. The American literary renaissance of the mid-19th century with major emphasis on the works of Emerson, Thoreau, Hawthorne, Melville, and Whitman. GDR.HU2
330/530. Chaucer (Br). Works of Chaucer with major emphasis on the Canterbury Tales and their historical, social, linguistic background, GDR:HU2
333/533. Shakespeare (Br), 3 cr. The early plays. GDR:HU2
334/534. Shakespeare (Br). 3 cr. The tragedies and later plays. GDR:HU2
336/536. Milton (Br). 3 cr. Milton's poetry and selected prose: the growth of a writer in his historical milien. GDR:HU2
342/542. English Grammars. 3 cr. A survey of the major methods of language analyses which have been applied to English since the 18th century; traditional, structural, and transformation-generative.
344/544. History of the English Language. 3 cr .
Development of English sounds, spelling, inflection, syntax, vocabulary, and dialects from Old English to the present.
345/545. English Language for Teachers. 3 cr.
Contemporary approaches to language acquisition, analysis, history, and usage, with emphasis on the problems of the teacher. (See NOTE 1, above)

346/546. Old English. 3 cr. Introduction to Old English language and literature.
350/550. Advanced Expository Writing. $1-3$ cr. The art of expository writing with attention to voice, audience, convincing use of evidence, and development of the writer's individual style. Prereq: 250 or cons chair.
351/551. Writing Techniques (Poetry or Fiction). $1-3 \mathrm{cr}$. Readings, written exercises, discussions, and at the option of the instructor, lectures in the techniques of poetry or fiction writing; selected writers read and analyzed from the practicing writer's point of view. May be taken for a maximum of 3 credits under each focus. Prereq. Consent of instructor or chair.
352. Free-lance Writing, 3 cr. Designed for students interested in essay writing for personal satisfaction and possible publication; specific emphasis on the most marketable types of essays, such as the interview/profile, how-to, travel, opinion, humor, familiar essay; survey of likely markets, advice on how to break in, the preparation and submission of the manuscript, cover and query letters, and information about copyrights. Prereq. Cons instr or chair.
353/553. Creative Writing (Poetry or Fiction). $1-3 \mathrm{cr}$. Training and practice in writing various forms of poetry or fiction; class discussion of student work. May be taken for a maximum of 6 credits under each focus. Prereq. Consent of instructor or chair.
354/554. Technical Writing. 3 cr. Practice in writing technical reports and articles connected with the student's area of specialization; does not fulfill the writing course requirement for the English major preparing to teach.
355/555. Methods of Teaching Composition (Elementary and Secondary). 2 or 3 cr. Teaching writing as a composing process, theory and practice for all levels and subjects. Does not count toward the English major or minor.
356/556. Methods of Teaching Literature (Elementary and Secondary). 2 or 3 credits. Teaching literature as an exploratory process, beginning with reader response; theory and practice for all levels. Does not count toward the English major or minor.
357. Independent Writing. 1 cr. Pass-Fail ONLY. Same description as for 157.
358. Systems Documentation, 3 cr. Instruction and practice in writing technical reports, feasibility studies, and user documentation for students of computer systems design. Either 354 or 358 , but not both, may count toward the writing minor. Prereq: Con reg in Computer Science 315.
360/560. Regional Literature (Am). 3 cr. Literature by a small group of authors whose writing reflects the concerns of geographic areas. A subtitle will be added each time the course is offered. May be repeated under different subtitles.
361. World Literature. 3 cr. Representative selections of world literature from the earliest times to the 17 th century. GDR:HU2
362. World Literature. 3 cr. World literature from the 17 th century to the present. GDR:HU2
363. Nature Literature. 3 cr. Writings which emphasize the relationship of man to nature, visits with nature writers, and field trips to correlate readings with first-hand observation of the natural world. Meets requirements of environmental studies minor. GDR:HU2

364/564. Canadian Literature. 3 cr. Emphasis on major writers, stressing contemporary writers such as Margaret Atwood, Alice Monro, Robertson Davies, Sinclair Ross. GDR:HU2
366/566. English Drama to Shaw (Br). 3 cr. Major plays and trends in drama from medieval origins to modern period, such as Everyman, Dr, Faustus, Volpone, The Duchess of Malfi, Tis a Pity She's a Whore, Beggar's Opera, The Importance of Being Earnest. GDR:HU2
374/574. Oral Foundations of Written Composition in Early Childhood. $1-3 \mathrm{cr}$. Evaluating and developing techniques of language instruction for children; the preschool and kindergarten child as creator of expressive language; the basis of composition skills. For teachers and prospective teachers in early childhood education. Prereq: Acceptance into the early childhood education program; Communicative Disorders 266; English 274 or con reg.
375/575. Literature for Adolescents. 3 cr. Selecting and reading of literature suitable for adolescents. (See NOTE 1. above.)
378/578. Contemporary Fiction. 3 cr. Contemporary fiction since World War II with emphasis on experimental narrative techniques and/or thematic relationships. GDR:HU2
380/580. Literary Criticism. 2 or 3 cr. Principles of literary criticism based on the chief ancient and modern theories.
381/581. Reading for the Teacher of English. 3 cr. Fundamental reading concepts applied to English; psychological background of the reading process, means of assessing student abilities and reading materials, and the relationship of reading to writing and speech; techniques for developing positive student attitudes and skill in comprehending implied as well as explicit meanings. (See NOTE 8. above.)
382/582. Ethnic Literature of the United States (Am). 3 cr. The concept of cultural pluralism and an exploration of literary works by Native Americans, Afro-Americans, Asian-Americans, Jewish-Americans, and writers of European immigrant descent. GDR:HU2
383/583. Themes in Literature. $1-3 \mathrm{cr}$. Works of several writers, selected from the manifestation of a theme or related themes, to be determined by the special interest of the staff member offering the course. A subtitle indicating the theme to be studied (e.g. The Jew in American Literature) will be added each time the course is offered. May be repeated under different subtitles. GDR:HU2
385. Masters of Literature. 2 or $\mathbf{3}$ cr. A close, critical study of one or more masters of literature, to be determined by the special interest of the staff member offering the course. A subtitle indicating the author or authors studied will be added each time the course is offered.
390. Independent Reading. 1 cr . An individualized program for reading literature mutually selected by the student and the teacher; the student will read, analyze, and discuss the literature in conference or in groups. May be repeated for a total of 3 credits; does not count toward the English major or minor.
391. Frankenstein Revisited. 3 cr. The literary, philosophical, and scientific foundations of genetic engineering. Does not count toward the English major or minor. GDR:TCI BA BS
395/595. Workshop in English. 1-3 cr. Study of contemporary scholarship in English. A subtitle indicating
the topic will be added each time the workshop is offered. May be repeated for credit under different subtitles. Prereq: Cons chair.
397. Practicum. 1-3 cr. Students may, by agreement with the chair and consent of the instructor, arrange for supervised practical experience as tutors, teachers' aides, etc. Approximately 45 hrs of practice will be required for each credit. Subtitles will identify type of practicum.
399. Independent Study. $1-3 \mathrm{cr}$. Upperclass students may, by agreement with the chair, arrange for out-of-class work, for which credit may be allowed up to 1 credit for each week, or its equivalent, devoted exclusively to the project. Students with less than a grade point average of 3.00 in English courses are advised not to register for this course. Prereq: Cons chair.
498. Writing Internship. $1-6 \mathrm{cr}$. Supervised writing experience in the field; evaluation by faculty member in consultation with field supervisor on the basis of a culminating report and samples of the writing done; credit to be determined by the faculty in charge; open only to English majors and minors, writing minors, and technical writing minors. Prereq: Sr st and cons chair. A maximum of 3 credits may be applied to the English major/writing minor.
712. Advanced English Methods. 3 cr. Examination of problems in teaching literature, writing, and the language arts: course and curriculum design, trends and issues in teaching English, and the adaptation of theory and research to classroom practice. Open to elementary language arts and secondary English teachers and candidates for certification. Required of all MST and MAT students who elect the project option.
715. Twentieth Century Literature. 3 cr . The specific focus will be indicated by a subtitle each time the course is offered.
716. The English Novel. 3 cr. A subtitle indicating the period covered will be added each time the course is offered.
719. The American Novel. 3 cr . A subtitle indicating the period covered will be added each time the course is offered.
740. Language in Society. 3 cr . Historical growth and continuing development of the English language and its uses in society, including a study of current usage and principles for evaluating language in use.
745. Censorship. 3 cr . An examination of the history of censorship both in the schools and in society, the major issues of censorship in the classroom, and ways for teachers, administrators, librarians, and citizens to deal with censorship problems.
750. Writing Nonfiction. 3 cr . Reading of modern essays to learn about different methods and styles combined with criticism of the student's own writings.
752. Workshop in Fiction. 3 cr . Advanced study in the techniques of fiction; discussion and criticism of work submitted by class members. Prereq: Cons instr or cons chair.
753. Workshop in Poetry. 3 cr . Advanced study in the techniques of poetry; discussion and criticism of poems submitted by class members. Prereq: Cons instr or cons chair.
755. Teaching English (with subtitle in literature, composition, or creative writing). 3 cr , Research and discussion of problems and techniques of teaching English.

Subtitle to be specified. May be taken once under each subtitle.
756. Measuring Growth in English. 3 cr. Theory and practice of evaluating writing ability and literary response; issues in testing and evaluation as they relate to English teachers.
757. Writing Centers: Theory and Practice. 3 cr. Establishing and administering elementary and secondary school writing centers, training peer tutors, and teaching by the conference method.
760. Literature and the Human Experience. 3 cr. Literature as an instrument for man's understanding of his own experience.
761. Seminar in English Literature. 3 cr. The specific focus will be indicated by a subtitle each time the course is offered.
762. Seminar in American Literature. 3 cr. The specific focus will be indicated by a subtitle each time the course is offered.
772. Poetry: Forms, Functions, and Meanings. 3 cr. The forms and structures of poetry in English and the ways that poems convey meanings.
781. Reading in the English Classroom. 3 cr . Critical review of psycholinguistic research with application to methods, selection of materials, and problems with teaching reading in the English curriculum, elementary through secondary.
785. Selected Literary Master(s). 2 or 3 cr. The specific master(s) will be announced in the timetable.
786. Selected Literary Topic(s). 2 or 3 cr. The specific topic(s) will be announced in the timetable.
795. Project. 1 cr. An in-depth examination of research and theory about a specific teaching problem such as curriculum design, teacher training or revising district programs, and a creative application of research and theory to solve such problems.
796. Independent Study. $1-3$ cr. Supervised study under the direction of an instructor.
798. Portfolio. 2-4 cr. Selection and analysis of professional presentations, publications, accepted manuscripts, in-services, and similar activities. Prereq. Consent of Portfolio Committee.
799. Thesis. 26 cr.

ENGLISH AS A SECOND LANGUAGE See Foreign Language.

ENVIRONMENTAL COMMUNICATION
See Natural Resources.

ENVIRONMENTAL EDUCATION/INTERPRETATION
See Natural Resources.

## ENVIRONMENTAL STUDIES (College of Letters and Science)

J. Baird Callicott, Coordinator

Room 409, Collins Classroom Center
Phone: (715) 346-3428

## Environmental Studies Minor

Consists of a minimum of 24 credits distributed as follows:

1. Required courses: Biology $305 ; 3$ credits from Natural Resources 370,474 , or 478.
*Majors and minors in the College of Natural Resources are not eligible for 370 . Everyone else must include 370 and may include 478 among the electives.
2. Electives: Select the remaining credits from the following courses in at least four different departments: Anthropology 342, 350, 347; Economics 204; English 363; Geography 340; History 366; Natural Resources 300, 375, 475, 478, 493; Philosophy 181, 380, 385; Physics 333; Political Science 304; Psychology 321; Sociology 260.

## EXCEPTIONAL EDUCATION

See Health Promotion/Physical Education.

## EXPERIENTIAL LEARNING PROGRAM

James A. Gifford, Adviser
Martha St. Germaine, Adviser
Dean Smith Room, University Center
Phone (715) 346-2045 or 346-2078
The Experiential Learning Program allows you to receive credit for college-level learning obtained outside the traditional academic setting. Credit is not granted simply for experience, but rather for the learning obtained from the experience. The learning is judged to be equivalent to that which would be gained through UW-Stevens Point course work.
Prior learning may be evaluated by techniques such as a portfolio assessment, or where appropriate for specific courses, College Level Examination Program (CLEP) examinations and challenge examinations offered by various departments.
After you have formally applied for admission to the university you can request an evaluation of experiential learning for credit. Please follow this procedure for portfolio assessment:

1. Contact the Experiential Learning Adviser (ELA) who will help you identify the competencies you have acquired, and decide which credits should be sought by prior learning assessments and/or by more traditional means. Have transcripts that certify formal educational experience sent to the Admissions Office.
2. Prepare detailed and documented portfolios of your adult learning experiences, stating which competencies you believe you have already acquired. You may consult with the ELA as you develop your portfolios.
3. After you and the ELA have determined which credits are to be sought and have prepared the forms and documentation, the ELA will send the materials to the chair(s) of the involved department(s). The faculty member or committee that is assigned to assess your
portfolio and determine credit may use your written materials, telephone you, or arrange for a personal interview with you.
4. The interview gives the evaluating faculty member an opportunity to verify information in the portfolio and secure any additional materials needed about the learning experiences you are seeking credit for.
5. After the evaluation is complete, the faculty member will make a written recommendation for or against the award of credit, the amount of credit, and the level of credit, and will submit the recommendation and portfolio to the chair of the appropriate department for approval or disapproval. The chair will forward the material and final recommendation to the ELA.
6. The ELA will notify you and the Records Office of the award of credit, which will be entered into your permanent record. A fee of $\$ 50$ for 9 or fewer credits, or $\$ 100$ for 10 or more credits will be assessed.
Evaluation of prior learning takes time. Please do not assume that the evaluation can be completed during the semester of application. It may take several weeks or even months.

## FASHION AND INTERIOR DESIGN (College of Professional Studies)

Mary Ann Baird, Associate Dean of the Division of Fashion and Interior Design
Room 101, College of Professional Studies Building Phone: (715) 346-2830, -2831
Faculty: Baeten, Baird, Hoffbeck, L. Johnson-Gilles, Metcalf, Pankowski, Randall, Thomson, Vreeman, P. Williams.

## Fashion Merchandising Major

1. Required courses, 37-38 credits: Human Development 100; Fashion-Interior Design 101, 103, 231, 233, 301, 302, 303, 329, 331, 333, 395, 431.
2. Collateral courses, 9 credits: Accounting 210, Computer Information Systems 101/102, Economics 210.
3. Food and Nutrition 151; 5 credits of chemistry; 3 credits each in art history, psychology, and sociology to satisfy part of the general degree requirements.
4. Select one of the following areas of emphasis: a. Business, 21 credits: Accounting 211; Economics 211; Búsiness 330, 380, 433; 3 credits from Business 336, 337; 3 credits from Fashion-Interior Design 323, 324, 325, 326.
b. Apparel Resources, 21 credits: Human Development 372; Fashion-Interior Design 312 or 417, 323 or 324, 325, 326; Business 330 and 352.

## Interior Design Major

1. Fifty-two credits: Human Development 100; FashionInterior Design 101, 204, 211, 212, 233, 301 or 313; 304, 309, 310, 314, 316, 333, 395, 411, 412, 415, 430.
2. Thirteen to 15 credits: Instructional Resources 110; Computer Information Systems 100 or 101/102; 9 additional credits in studio or related art.
3. Food and Nutrition 151 and 3 credits each of art history, psychology, and sociology to satisfy part of the general degree requirements.

## Courses in Fashion-Interior Design

101. Color and Design. 3 cr. Color and design in relation to the near environment. Two hrs lec, two hrs studio per wk. Credit may not be earned in both Fashion-Interior Design 101 and Art 101.
102. Clothing Construction and Selection. 3 cr . Study and application of basic principles as related to aesthetics, fabric, style, and fit. One hr lec, four hrs lab per wk. Exemption possible through written and practical examinations.
103. Rendering Techniques. 3 cr. Drawing, sketching, and color techniques to visually communicate design concepts in the areas of architectural exteriors, interiors, and furnishings. Six hrs studio.
104. Introduction to Interior Design. 3 cr . Analysis of human and environmental factors relative to creating supportive space for human activity; development of a design methodology. Two hrs lec, two hrs studio. Prereq: 101 or Art 101.
105. Interior Space Planning. 3 cr. Interior space needs with emphasis on function and aesthetics; one hr lec, four hrs studio. Prereq: 211 or con reg.
106. Introduction to Fashion Merchandising. 3 cr. Retail terminology; interrelationship of the primary, secondary, and retail markets; personal sales techniques and merchandising careers. Prereq: So st.
107. Textiles. 3 cr . From fiber to finished fabric; recognition, testing, purchase, use, and care of textiles. Two hrs lec, two hrs lab per wk. Prereq: So st.
108. Visual Merchandising. 3 cr . Application of design elements and principles in commerical display and store planning; various media and creative techniques explored. One hr lec, four hrs studio. Prereq: 101 or Art 101.
109. Dress and Human Behavior. 3 cr . Interaction of cultural, social, psychological, aesthetic, functional, economic, and technological factors in determining the meaning and use of clothing for the individual and society. Prereq: 101 and 102, or cons instr.
110. Fashion Marketing. 3 cr . Analysis of fashion trends at all levels from ready-to-wear to the couture market; fashion industry marketing techniques. Prereq: 231 or cons instr.
111. Rendering Techniques. 3 cr . Advanced problems in drawing, sketching, and color techniques in the areas of architectural exteriors, interiors, and furnishings. Six hrs studio. Prereq: 204.
309/509. History of Decorative Arts - Antiquity Through the 18th Century. 3 cr . Development of architectural styles, furniture, textiles, and accessories as related to interior environments. Prereq: 101 or Art 101. GDR:HU1
310/510. History of Decorative Arts - 19th and 20th
Centuries. 3 cr . Development of architectural styles, furniture, textiles, and accessories as related to interior environments. Prereq: 101 or Art 101. GDR:HU1
112. Structural Decorative Textiles. 2 or 3 cr . Application of design principles of two- and three-dimensional explorations in applique, canvas work, drawn work, hooking, and knitting techniques; historical as well as contemporary approaches. For 2 cr - one hr lec, two hrs studio per wk; for 3 cr - one hr lec and four hrs studio per wk. Prereq: 101 or Art 101.
313/513. Architectural Environments. 2 or 3 cr. Public and private architectural environments as affected by technology, culture, economics, and psychosocial needs. For 2 cr , two hrs lec; for 3 cr , one additional hr seminar.
314/514. Architectural Systems. 3 cr. Analysis of structural and mechanical systems and materials with emphasis on lighting design. One hr lec, four hrs studio per wk. Prereq: Instructional Resources 110.

316/516. Furniture and Accessory Design. 3 cr. Selection and design of furnishings and office systems based upon analysis of human factors, materials, aesthetics, and market availability; processes and resources. One hr lec, four hrs studio. Prereq: 204 and Instructional Resources 110.
323. Applied Apparel Design. 3 cr. Study, construction, and fitting of a basic pattern using design principles as applied to flat pattern drafting, construction of a garment. One hr lec, four hrs lab per wk. Prereq. 103, 233, or cons instr.
324/524. Tailoring. 3 cr . The application of tailoring techniques to the construction of a garment. One hr lec, four hrs lab per wk. Prereq. 103 or cons instr.
325. Apparel Analysis and Evaluation. 3 cr. Study of apparel and related products through the analysis of style, durability and utility, in order to evaluate quality merchandise produced to meet consumer needs and demands. Prereq: 103.
326. Special Clothing Needs. 2 or 3 cr. Factors influencing clothing needs for occupational and recreational use, selected life cycle stages, and the handicapped. Two hrs lec for 2 cr , and an additional lab hr to be arranged for 3 cr .
329/529. History of Costume. 3 cr . The history of costume from ancient times to the present, GDR:HU1
331. Principles of Retailing. 3 cr. Retailing related to consumer behavior, store location, retail institution, retailing in the future and merchandising mathematics necessary to successfully run a retail establishment. Prereq: 231; Accounting 210 or cons instr.


333/533. Textile Evaluation. 3 cr. Standard procedures and equipment for testing fabrics; emphasis on research techniques. One hr lec, four hrs lab per wk. Prereq: 233.
391/591. Study Tour. 1-6 cr. Study tours to appropriate industries, museums, or facilities for students in fashion and interior design. A subtitle will be added to describe the area each time the course is offered.
395. Field Experience. 3 or 4 cr. A supervised program at a cooperating business site, One hr seminar per wk for 1 cr, plus a minimum of forty hrs arranged at the business site for each additional cr. May be repeated for a total of 9 cr. Prereq. Cons instr.
397. Field Work. 1-8 cr. A supervised training work program in a cooperating off-campus establishment; work experience and supervision followed by an evaluation of individual progress.
399. Special Work. Upperclass students majoring in fashion and interior design, may by agreemeent with the associate dean of the School of Home Economics, arrange for special out-of-class work for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project.
411/611. Residential Interior Design. 3 cr . Application of technical and design theory to residential living space; total project development and presentation. Six hrs studio. Prereq. 314.
412/612. Contract Interior Design. 3 cr. Applícation of technical and design theory to nonresidential space; total project development and presentation. Six hrs studio. Prereq. 314.
415. Problems in Interior Design. 2-4 cr. Development of major project; client interaction, research, programming, space planning, visual concept, reports, and presentation. Two hrs lec per wk; additional hrs to be arranged. May be repeated for a total of 8 cr . Prereq; Cons instr.
417/617. Applied Textile Design. 3 cr. Experimentation using art principles in the creative design of two-and threedimensional textiles; printing, tie-dye, and batik as applied to wall hangings, furnishings, and apparel; emphasis on fiber, fabric, and usage interrelationships. Prereq: 101 or Art 101, and 233 or cons instr.
430. Professional Practices for Interior Design. 3 cr . Business and design procedures, philosophies, ethics, marketing, sales, resources and careers. One hr lec, four hrs studio per wk. Prereq. Sr st.
431. Fashion Entrepreneurship. 3 cr. Developing, promoting, opening, operating, and dissolving a retail fashion establishment. Prereq. 231, 331; Business 433 or cons instr.
490/690. Workshop. 1-4 cr. A subtitle will be added to describe the area considered each time the course is offered.
712. Perspectives in Related Art. 3 cr . Philosophy, methods, and trends in the field of art as it relates to an individual in home and society; individual reading and research problems in addition to media and technique exploration.
719. Seminar in Housing and Home Furnishings. 3 cr. Critical review of current research data.
721. Recent Developments in Textiles and Clothing, 3 cr. Recent trends in the field with emphasis on related consumer problems.
729. Seminar in Textiles and Clothing. 3 cr. Critical review of current research data.

## Foreign Languages

## FASHION MERCHANDISING

See Fashion and Interior Design.

## FOOD SERVICE MANAGEMENT

See Home Economics.

## FOREIGN LANGUAGES (College of Letters and Science)

Mark Seiler, Chair<br>Room 490, Collins Classroom Center<br>Phone: (715) 346-3036

Faculty: Assardo, M. Bloom, B. Knowlton, S. Lewis, Morgan, Palka, Papin, R. Price, Ruppel, J. Seiler, M. Seiler.
The Department of Foreign Languages offers courses in Chinese, English as a second language, French, German, Polish, Russian, and Spanish.

## Foreign Language Major (French, German, Spanish)

Consists of 24 credits in courses at the 300 and 400 levels, including 313, 314, 317, 331, 340, and one literature course beyond 340 .

## Foreign Language Major with a Concentration in Culture Studies

Consists of 30 credits: 15 credits of language and literature at the 300 and 400 levels, including 313, 314, 317, 340; and 15 credits of culture studies, including 6 credits of 331, and 9 credits in course work outside the department, selected with the approval of the adviser.

## Foreign Language Minor (French, German, Russian, Spanish)

Consists of 15 credits in courses at the 300 and 400 levels, including 313, 314, 331, and 340. (In Russian, substitute 300, 301, 331, and a 300 -level literature course.)

## Teacher Certification Programs

If you are seeking teacher certification, you must be accepted into the Professional Education Program (see the Education section elsewhere in this catalog) and must take Foreign Language Education 333 which is offered in the fall semester only.
If you are seeking teacher certification in English as a
Second Language, you must have:
A. The elementary education curriculum with a concentration in English or foreign language. OR
B. The secondary education curriculum with a major or minor in English or a foreign language.
AND

1. Four semesters of college-level foreign language.
2. Demonstrated proficiency in English.
3. English 240 or Anthropology 280; English 342; Anthropology 101 or 310; Communicative Disorders 266. The following additional courses are strongly recommended: English 345, 382; Communicative Disorders 260; Foreign Language 320.
4. Education 398 and/or English or Foreign Language Education 397, and Foreign Language Education 333.

If you are seeking certification to teach foreign languages in the elementary school, in addition to the elementary education curriculum with at least a minor in a foreign
language, you must have: (a) and (b), in the appropriate language: (a) 317 (Advanced Conversation) and (b) 320 (Phonetics); (c) Foreign Language Education 333; and (d) Education 398 or Foreign Language Education 397 in appropriate work. Obtain details from the chair of the Foreign Language Department.
If you are seeking certification to teach foreign languages in the secondary school (French, German, Russian, Spanish), in addition to a major or a minor in a foreign language, you must have 317 and 320 in the appropriate language; and Foreign Language Education 333, and Education 398. You must also pass an oral proficiency examination in the foreign language. Obtain details from the chair of the Foreign Language Department.
To be accepted, retained, and approved for graduation with a major or minor in the Foreign Language
Department, you must maintain a grade point average of 2.00 in courses taken within the major or minor, regardless of declaration of academic bankruptcy.

## Policy on Placement, Advanced Standing, and Credit by Examination

All entering students who elect courses in French, Germian, Russian, or Spanish, and who have previously studied that language in high school are required to take a placement examination. On the basis of this examination you will be placed in the appropriate course. You are urged to complete this placement examination before your assigned registration day. Make arrangements with the department chair.
Freshmen and sophomores who have demonstrated proficiency in a foreign language may be placed in the appropriate foreign language course by the department.
The department participates in the University Advanced Standing Program. Under this program:
A. The department will grant up to 16 credits for foreign language courses completed in high school. You must take a placement exam, and complete the courses into which you are placed with a grade of at least "B-"' or better to receive retroactive credit.
B. Credit will be granted if you demonstrate proficiency in a language gained through nonacademic means. You must take a placement exam and complete the course into which you are placed with a grade of at least "B-" or better to receive credit for prerequisite courses which you have not taken formally.
If you are applying for credit for courses completed in high school, or for test-out credit, you must be enrolled in a foreign language course at the time you apply. After you successfully complete that course, the department will recommend granting the credit you applied for.

## Courses in Foreign Language (General Courses)

See also the listing under Courses in Foreign Language Education, below.
010. English as a Foreign Language. 0 cr . A two-semester, noncredit course in English for students who do not have adequate facility in English for university work.
100. Introductory Conversation. 2 cr . The language in which the course is offered will be specified after the colon.
199/299. Independent Study. Each 1-4 cr. Individual study of foreign language under the direction of a consenting faculty member. Prereq: Cons chair.
330. Culture and Civilization. 2 or 3 cr . A subtitle
indicating the focus will be assigned each time the course is offered; may be repeated for credit under different subtitles. May count toward a major or minor in foreign language with prior consent of the department chair. GDR:HU4
340/540. Special Language Studies. $1-3$ cr. Special focus on some aspect of a language or the relationship between two or more languages. The focus will be determined by the instructor each time the course is offered. May be repeated under different subtitles. Prereq: One year of study in a foreign language.
399/499. Independent Study. $1-4$ cr each. Individual study of foreign language under the direction of a consenting faculty member. Prereq. Cons chair.
796. Independent Study. 1-3 cr. Planned study designed to enrich and supplement the student's preparation in the area of specialization; regularly scheduled conferences with a staff supervisor.
For more course listings in foreign language, see the Latent Course List at the end of this section.

## Courses in Foreign Language Education

333/533. Techniques in Second Language Instruction. 3 cr. Aims, methods, materials, techniques, planning, organization, testing, etc, as applied in teaching foreign languages and English as a second language in elementary and secondary schools. Class meetings; attendance at four weeks of a beginning language class in a language which the student has not yet studied; four weeks observation and teaching in a beginning language course in the student's target language.
397. Practicum. $1-3$ cr. Students may, by agreement with the chair and consent of the instructor, arrange for supervised practical experience as tutors, teachers' aides, etc. Approximately 45 hours of practice will be required for each credit. Subtitles will identify the type of practicum.
733. Workshop in Foreign Language Education. 1-3 cr. Problems of teaching in the elementary and secondary schools. A subtitle will be added each time the course is offered. Prereq: Advanced standing in the foreign language education curriculum, or teaching experience.

## Courses in Chinese

101(NW). First Year Chinese. 4 cr. Elementary modern Mandarin, for students with no previous training in the language. GDR:FL BA BM/BFA
102(NW). First Year Chinese. 4 cr. Continuation of 101. Prereq: 101 or equiv. GDR:FL BA BM/BFA

200/300; 201/301. Continuing Chinese, 4 cr each. Intermediate modern Mandarin: further refinement of all language skills, within a framework of intermediate to advanced grammar development; special emphasis on knowledge of Chinese characters and development of reading and writing skills. Placement level will be according to ability, but normally students completing Chinese 101/102 will enroll for Chinese 200; students with additional work beyond first-year level may enroll for Chinese 300. Prereq: For 200 is 102 ; for 201 is 200 , or placement; for 300 is 201 ; for 301 is 300 .

## Courses in French

101. First Year French. 4 cr. For students with no previous training in the language, or by placement examination. GDR:FL BA BM/BFA
102. First Year French, 4 cr. Continuation of 101. Prereq: 101, or by placement examination. GDR:FL BA BM/BFA
103. Second Year French. 4 cr. Intensive grammar review in reading and speaking. Prereq: 102 , or by placement examination.
104. Second Year French. 4 cr. Continuation of 211 . Prereq. 211, or by placement examination.
105. Intermediate Conversation. 3 cr . Prereq: 212, or by placement examination.
106. Intermediate Composition. 3 cr . Prereq, 212 , or by placement examination.
107. Advanced Conversation and Composition. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated once for credit under a different subtitle. Prereq: 313 and 314, or cons chair.
108. French for the Professions. 3 cr . A general knowledge of writing and reading material associated with the professions in French; for example writing business letters and preparing business-related documents. Special attention will be placed on cultural differences between the United States and other countries. A subtitle indicating the focus will be added each time the course is offered; may be repeated once for credit under a different subtitle. Prereq: 313 and/or 314 or cons chair.
109. Phonetics and Diction. 3 cr. Prereq. 212 , or by placement examination.
331/531. French Culture and Civilization. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr. GDR:HU4
110. Introduction to French Literature. 3 cr . Intensive reading in French literature, methods of literary analysis of the various genres; introduction to fundamental techniques of literary criticism. A subtitle will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 212, or by placement examination, GDR:HU2
111. Survey of French Literature. 3 cr. French literature to 1800. Prereq. 340 or cons instr. GDR:HU2

342/542. Survey of French Literature 3 cr. Nineteenth century French literature to the present. Prereq. 340 or cons instr.GDR:HU2
350. 17th Century Literature. 3 cr. A subtitle indicating the focus will be added each time the course is offered, may be repeated for credit under different subtitles. Prereq: 340 or cons instr. GDR:HU2
355. 18th Century Literature. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr. GDR:HU2
360. 19th Century Literature. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr. GDR:HU2
370/570. 20th Century Literature. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr. GDR:HU2
493/693. Special Literature Studies. 2 or 3 cr. Special focus to be determined by the instructor offering the course, one of the following: a literary genre or group, a recurrent theme in literature, a single author, or a comparison of
two authors. Prereq: 300-level French literature course, or cons instr. GDR:HU2
499. Independent Study. 1-4 cr. Individual study under the direction of a consenting faculty member. Prereq: Cons of chair.

## Courses in German

101. First Year German. 4 cr . For students with no previous training in the language, or by placement examination. GDR:FL BA BM/BFA
102. First Year German. 4 cr . Continuation of 101. Prereq: 101, or by placement examination. GDR:FL BA BM/BFA
103. Second Year German. 4 cr . Intensive grammar review. Prereq: 102, or by placement examination.
104. Second Year German. 4 cr . Continuation of 211. Prereq: 211, or by placement examination.
105. Intermediate Conversation. 3 cr. Prereq: 212, or by placement examination.
106. Intermediate Composition. 3 cr. Prereq: 212, or by placement examination.
107. Advanced Conversation and Composition. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated once for credit under a different subtitle. Prereq: 313 or 314 , or cons chair.
108. German for the Professions. 3 cr . A general knowledge of writing and reading material associated with the professions in German; for example writing business letters and preparing business-related documents. Special attention will be placed on cultural differences between the United States and other countries. A subtitle indicating the focus will be added each time the course is offered; may be repeated once for credit under a different subtitle. Prereq: 313 and/or 314 or cons chair.
109. Phonetics and Diction. 3 cr. Prereq: 212, or by placement examination.
331/531. German Culture and Civilization. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr. GDR:HU4
110. Introduction to German Literature. 3 cr . Intensive reading, methods of literary analysis of the various genres; introduction to fundamental techniques of literary criticism. A subtitle will be added each time the course is offered; may be repeated once for credit under a different subtitle. Prereq: 212 or by placement
examination.GDR:HU2
111. Literature of the 18 th Century. 3 cr . Selected readings. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: $\mathbf{3 4 0}$ or cons instr. GDR:HU2
112. Literature of the 19 th Century. 3 cr . A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr. GDR:HU2
370/570. Literature of the 20th Century. 3 cr . A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr. GDR:HU2
493/693. Specialized Studies in German Literature. $1-3 \mathrm{cr}$. Special focus to be determined by the instructor offering the course, one of the following: a literary genre or group, a recurrent theme in literature, a single author, or a
comparison of two or more authors. May be repeated for credit under different subtitles. Prereq: One 300 -level German literature course and cons instr. GDR:HU2
113. Independent Study. 1-4 cr. Individual study under the direction of a consenting faculty member. Prereq: Cons of chair.

For course listings in Greek, see the Latent Course List at the end of this section.

## Courses in Polish

101. First Year Polish. 4 cr. For students with no previous training in the language. GDR:FL BA BM/BFA
102. First Year Polish. 4 cr. Continuation of 101. Prereq: 101 or equiv. GDR;FL BA BM/BFA
103. Second Year Polish. 4 cr. Prereq: 102 or equiv.
104. Second Year Polish. 4 cr. Continuation of 211 . Prereq: 211 or equiv.
105. Specialized Studies in Polish. $1-3 \mathrm{cr}$. Individual study under the direction of consenting faculty member. Prereq: Cons of chair.

## Courses in Russian

101(NW). First Year Russian. 4 cr. For students with no previous training in the language. GDR:FL BA BM/BFA
102(NW). First Year Russian. 4 cr. Continuation of 101. Prereq: 101, or by placement examination. GDR:FL BA BM/BFA
211(NW). Second Year Russian. 4 cr. Intensive grammar review, practice in reading and speaking Russian. Prereq: 102, or by placement examination.
300(NW). Continuing Russian. 4 cr. Intermediate development of language skills beyond the third semester; with emphasis on vocabulary building and syntax, intended to improve all language competencies. A subtitle will be added each time the course is offered. May be repeated for credit under different subtitles. Prereq: 211, or by placement examination.
301(NW). Continuing Russian. 4 cr . See the description of Russian 300.
313(NW). Intermediate Russian Conversation. 3 cr. Prereq: 300 or 301 , or by placement examination.
314(NW). Intermediate Russian Composition. 3 cr. Prereq: 300 or 301 , or by placement examination.
331(NW). Russian Culture and Civilization. 3 cr . A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 300 or 301 , or by placement examination. GDR:HU4
360(NW). Literature of the 19th Century. 3 cr . A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr. GDR:HU2
370(NW). Literature of the 20th Century. 3 cr . A subtitle will be added each time the course is offered. With a different focus, the course may be repeated for credit. Prereq: A 300 -level Russian course, or cons instr. GDR:HU2
493(NW). Specialized Studies in Russian Literature. 1-3 cr. Special focus to be determined by the instructor offering the course: a literary genre or group, a recurrent theme in literature, a single author, or a comparison of two or more authors. A subtitle indicating the focus will be added each
time the course is offered, May be repeated for credit under different subtitles. Prereq. One 300 -level Russian course or cons instr, GDR:HU2
499(NW). Independent Study, $1-4 \mathrm{cr}$. Individual study under the direction of consenting faculty member. Prereq: Cons chair.
For more course listings in Russian, see the Latent Course List at the end of this section.

## Courses in Spanish

101. First Year Spanish. 4 cr. For students with no previous training in the language, or by placement examination, GDR:FL BA BM/BFA
102. First Year Spanish, 4 cr. Continuation of 101 . Prereq: 101, or by placement examination. GDR.FL BA BM/BFA
103. Second Year Spanish. 4 cr. Intensive grammar review, practice in reading and speaking Spanish. Prereq. 102, or by placement examination.
104. Second Year Spanish. 4 er, Continuation of 211. Prereq: 211, or by placement examination.
105. Intermediate Spanish Conversation. 3 cr. Prereq, 212 , or by placement examination.
106. Intermediate Spanish Composition. 3 cr. Prereq: 212, or by placement examination.
107. Advanced Conversation and Composition. 3 cr. A subtitle indicating the focus will be added each time the course is offered, may be repeated once for credit under a different subtitle. Prereq, 313 and 314, or cons chair.

108. Spanish for the Professions, 3 cr, A general knowledge of writing and reading material associated with the professions in Spanish-speaking countries; for example writing business letters and preparing business-related documents. Special attention will be placed on cultural differences between the United States and other countries. A subtitle indicating the focus will be added each time the course is offered; may be repeated once for credit under a different subtitle. Prereq; 313 and/or 314 or cons chair.
109. Phonetics and Diction. 3 cr . Prereq, 212, or by placement examination.
110. Spanish Culture and Civilization. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr, GDR:HU4
111. Introduction to Literature. 3 cr. Intensive reading, methods of literary analysis of the various genres; introduction to fundamental techniques of literary criticism. A subtitle will be added each time the course is offered, may be repeated once for credit under a different subtitle, Prereq 212 or by placement examination. GDR:HU2
112. Survey of Spanish Literature. 3 cr. Spanish literature from the earliest works to the Renaissance. Prereq 212, or 331, or by placement examination. GDR:HU2
113. Survey of Spanish Literature. 3 cr. Spanish literature from the Renaissance to the present. Prereq: 212, or 331, or by placement examination. GDR:HU2
114. Survey of Spanish American Literature. 3 cr. From chronicles to modernism. Prereq. 212 or 332 , or by placement examination. GDR:HU2
115. Survey of Spanish American Literature, 3 cr. From modernism to the present. Prereq, 212 or 332 , or by placement examination. GDR:HU2
116. 19th Century Spanish Literature. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq. 331, or one 300 -level Spanish literature course, or cons instr.
470/670. Spanish Literature of the 20th Century. 2 or 3 cr. Selected readings. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq, 331 , or one 300 level Spanish literature course, or cons instr.
117. Spanish-A merican Literature of the 20th Century. 2 or 3 cr . Selected readings. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 331, or one 300 -level Spanish literature course, or cons instr.
493/693. Specialized Studies in Spanish (or SpanishAmerican) Literature. $1-3 \mathrm{cr}$. Special focus to be determined by the instructor offering the course, one of the following: a literary genre or group, a recurrent theme in literature, a single author, or a comparison of two or more authors. A subtitle indicating the focus will be added each time the course is offered, may be repeated for credit under different subtitles, Prereq, One 300 -level Spanish literature course and cons instr. GDR:HU2
118. Independent Study. 14 cr. Individual study under the direction of consenting faculty member. Prereq: Cons chair.
For more course listings in Spanish, see the Latent Course List at the end of this section.

FISHERIES
See Natural Resources-Water Resources.
FOREST RECREATION
See Natural Resources-Forestry.
FORESTRY
See Natural Resources.
FRENCH
See' Foreign Language.

GENERAL DEGREE REQUIREMENTS<br>See General Degree Requirements earlier in this catalog.

GENERAL PHYSICAL EDUCATION<br>See Health Promotion/Physical Education and General Degree Requirements.

## GENERAL SCIENCE

See Natural Science.

## GEOGRAPHY

## (College of Letters and Science)

Gary C. Meyer, Geography and Geology Department Chair Room D-332, Science Building
Phone: (715) 346-2629
Faculty: Detwyler, Difford, Kapter, McKinney, G. Meyer, Milfred, Multhauf, Parry, K. Rice, Ritter, Stetzer.

## Geography Major

Consists of a minimum of 34 credits and must include one of the three options listed below. The core of required courses in each option consists of 16 credits: Geography 101,113 or 120 , and $276,380,490$.

1. The physical environment option consists of:
a. The core courses.
b. Geography 352, 353 or $354,377,379$, and Geology 380.
c. Additional geography courses to total 34 credits.
d. Recommended courses: Biology 305; Soils 260, 362; Geology 201, 360, 370; Geography 340, 375; Mathematics 355; Computer Information Systems 101-102.
2. The cartographic option consists of:
a. The core courses.
b. Geography 376 or $386,377,379,382$, and 476.
c. Additional geography courses to total 34 credits.
d. Recommended courses: Geography 376 or 386 (whichever was not taken in (b) above; Computer Information Systems 101-102, 110 or 112, 365; Mathematics 355; additional upper-level coursework in physical, human, and/or regional geography.
3. The urban-economic option consists of:
a. The core courses.
b. Geography 110, 270 or $272,367,373$, and 377 or 379.
c. Additional geography courses to total 34 credits.
d. Recommended courses: Economics 100; Natural Resources 480; Mathematics 355 or Economics 330;

Sociology 356, 357; Political Science 242, 341;
Computer Information Systems 101-102.

## Geography Major for Teacher Certification

Geography 101, 110, 113, 120, 211, 276, 380 must be taken as part of or in addition to one of the options in the geography major listed above.
Geography courses taken at the 300 - or 400 -level on a pass/fail basis will NOT be credited toward the major or minor.
To be accepted and retained as a major, and to be approved for graduation, you must have a minimum grade point average of 2.00 ( 2.75 to student teach) in all courses taken within the geography major, regardless of a declaration of academic bankruptcy. The department chair may allow exemptions on a conditional basis.
As a major, you must have an adviser in the department. Any department faculty member may advise a geography major. You must file a major declaration form in the department office, keep it current, and confer with your adviser every semester.

## Geography Minor

Consists of 22 credits of which at least 6 credits must be 300 -level or above.

1. Geography 101,110 or 120.
2. At least one course from each of the following groups:
a. Geography 113, 211, 226 or $326,300,301,302,327$, 328, 329, 330.
b. Geography 270, 272, 340, 369, 373, 374, 375.
3. Additional credits to total 22 (may include Latin

American Studies 423).

## Geography Minor for Teacher Certification

Consists of Geography 101, 110, 113, 120, 211, 276, 380.

## Courses in Geography

100. The Physical Environment Under Stress. 3 cr. Selected physical geographic principles and processes, especially as they apply to human use of the earth; a problem-oriented introduction to such elements as atmosphere, climate, water, landforms, soils, and vegetation. Two hrs lec, two hrs lab per wk; field trip(s) may be required. (This course may not be applied toward general degree requirements if 101 is also taken.) GDR:NS
101. The Physical Environment. 5 cr . Introduction to modern physical geography: maps and map reading, energy balance, weather and climate, water, soils, vegetation, and landforming processes; dynamic relations among physical elements; the importance to humans of the physical environment. Three hrs lec, four hrs lab per wk; field trip(s) may be required. This course cannot be counted for graduation or the major if 102 or 103 (or equiv) is counted. (This course cannot be applied toward general degree requirements if 100 is also taken.) GDR:NS
108/308. Environmental Issues Through Films. 2 cr. Films, with background lectures and class discussion, used to develop various perspectives on, and explore basic solutions to, selected environmental issues, e.g: relations between humans and nature, animal extinction, surface mining, agricultural land use, pesticides, workplace hazards, chemical dumping, air quality, nuclear power and radiation, and the environmental threat of nuclear war; most films show case examples. May not be taken concurrently with Geography 340/540.
110(NW). Economic Geography. 3 cr. Introductory analysis of economic activities to include agriculture, mining,
forestry, fishing and manufacturing; field trip(s) may be required. GDR:SSI
113(NW). World Regional Geography. 3 cr. Survey of major patterns of physical features, culture, and humanland relations, by region in today's world; examples may show present and impending resource, environmental, social, and political problems, and explore basic solutions. GDR:SS1
120(NW). Cultural Geography. 3 cr. Cultural systems and the contemporary world: components and spatial expression of culture; patterns and problems of population, language, religion, urban and rural settlements, and political and economic development examined from such perspectives as diffusion, cultural ecology, cultural landscape, and cultural region. GDR:SS1
102. Wisconsin. 2 or 3 cr. Geographic analysis of selected physical and cultural features of the state. Prereq: So st. GDR:SS1
103. United States and Canada. 3 cr. Geographic interpretation of cultural and physical regions of the United States and Canada. Prereq: So st. GDR:SS1 270. Geography of Transportation, 3 cr. Survey and analysis of carriers, terminals, and routes of the world, with emphasis on commodity flow and traffic patterns. Prereq: So st, GDR:SS1
104. Geography of Manufaeturing, 3 cr. Distribution of manufacturing with emphasis on northeastern United States, the nations of Europe, and eastern Asia. Field trip(s) may be required. Prereq: So st. GDR:SS1
105. Introduction to Cartography: Map Conceptualization and Development. 3 cr . The map production process, including the rationale for the map, its graphic structure, data collection and organization, map layout, and final production. Two hrs lec, three hrs lab per wk. Prereq. So st.
$300 / 500$ (NW). Africa. 3 cr. Regional interpretation with particular attention to the distribution and activities of the peoples in relation to the physical and cultural patterns and to the various stages and problems of development. GDR:SS1
301/501(NW). Middle America. 2 cr. Mexico, Central America, and the Antilles, landforms, climate, natural vegetation, resources, population, historical evolution, political divisions, and economic organization. GDR:SS1
$327 / 527$ (NW). Asia. 3 cr. Physical features of the continent in relation to the distribution of population, agriculture, industry, and trade; special attention given to China, Japan, Korea, India, and Southwestern A sia. GDR:SS1
328/528. Europe. 3 cr. Distinctive features of Europe as a continent; physical and historical background; natural regions and their division into political units; the characteristics of each country (excluding the Soviet Union), GDR:SSI
$330 / 530(N W)$. The Soviet Union. 3 cr. Geographic interpretation of the USSR in terms of environmental conditions, historical circumstances, technological development, and Marxist-Leninist ideology, GDR:SS1 340/540. Environmental Degradation: A World Survey. 3 cr. A systematic review of critical locations representing man's destructive effects on the physical environment. Field trips may be required. GDR:SS1
106. Geomorphology, 3 cr. Characteristics, origin, and development of landforms; field trips may be required to
supplement classroom activities. Prereq. 100 or 101 , or Geology 100 or 101 or 104 or cons instr.
107. Physical Climatology and Meteorology. 3 cr. Study of radiation and energy balances; the composition, characteristics, and circulation of the atmosphere. Introduction to weather map analysis and forecasting. Field trips may be required. Prereq: 101 or cons instr.
108. Advanced Climatology. 3 cr. Advanced topics in radiation and energy balances, microclimatology, and hydroclimatology. Introduction to climatological instrumentation and data analysis. Two hrs lec and two hrs lab per wk. Field trips may be required. Prereq: 353, or 101 and cons instr.
367/567. Locational Analysis of Economic Activities. 3 cr. Spatial patterns of economic activities with emphasis on agriculture, manufacturing, transportation, and retailing.
368/568. World Populations and Resources. 3 cr.
Distribution and characteristics of resources; analysis of selected populations, their resource bases and related problems. GDR:SS1
373/573. Urban Geography. 3 cr. Physical characteristics, spatial patterns, functions, populations, land use, and livelihood structures of cities. Field trips may be required. GDR:SS1
374/574. Geography of Agriculture. 3 cr. Historical development of agriculture; characteristics and locational factors of current world agricultural production. GDR:SS1
109. Mineral Resources, 3 cr. Distribution and production of world mineral resources, including conservation principles, GDR:TCI BA BS
110. Map Development and Symbolization. 3 cr. Data manipulation and presentation, centering on cartographic symbols and their application to different mapping problems. Two hrs lec, three hrs lab per wk. Prereq. 276 or cons instr.
111. Air Photo Interpretation. 3 cr. Characteristics of aerial photographs and the use of air photo interpretation to gather data concerning regional landform analysis, resource inventories, and land use evaluation. Two hrs lec. two hrs lab per wk. Credit may not be earned in both Geography 377 and Natural Resources 377.
379/579. Remote Sensing of the Environment, 3 cr. Principles of remote sensor technology and their application to inventory earth resources, detect and monitor pollution, and measure other environmental phenomena; interpretation of multiband photography, multispectral, thermal infrared and radar imagery, and other types of data derived from sensors carried in aircraft and satellites. Prereq. Any geology or physical geography course, or cons instr. Field trips may be required.
112. Geographical Amalysis. 3 cr. Introduction to geographic concepts, methods, and approaches: history and philosophy of geography, geographic literature and bibliographic materials, statistical methods, spatial analysis, field observation and mapping, surveys and questionnaires, problem formulation and hypothesis testing, synthesis and presentation of geographic materials. Prereq, 276 and jr st, or cons instr.
113. Computer-Assisted Cartography. 3 cr . Introduction to the development, production, and applications of computerassisted mapmaking. Survey of computer cartography terms, concepts, and equipment, with emphasis on the conceptual and developmental aspects of computerproduced maps. Topics include digitizing, coordinate data
structures, spatial data bases, computer map design, turnkey cartographic systems, and computerized map production. Prereq: Any physical geography or geology course, and 276, or cons instr.
114. Map Design and Production. 3 cr . The graphic elements of a map and their role in the physical and perceptual structure of the map image; graphic communication, design principles, and map production skills. Two hrs lec, three hrs lab per wk. Prereq: 276 or cons instr.
115. Special Topics. $1-3 \mathrm{cr}$. Topics of interest to be treated from the geographical point of view. A subtitle will be added each time the course is offered; may be repeated for credit under different subtitles. Field trips may be required. GDR:TCI BA BS (certain subtitles only)
393/593. Field Trip in Geography. 1-3 cr. Direct observation of physical and cultural phenomena; required readings, field notebook and/or report. May be repeated for credit with change in locale or topic. Field trip fee may be required.
395/595. Directed Study. 1-3 cr. Students may, by prior arrangement with an instructor, arrange for directed study of a geographical topic. Prereq: One course in geography, and cons chair.
116. Research. 1-3 cr. Students may, by prior agreement with an instructor, arrange for a special research problem; research results will be publicly presented. Prereq: Cons chair.
117. Geographic Information Systems. 3 cr . Introduction to computer-based information systems for environmental management. Definition and evaluation of the functions of a spatial information system. Use of microcomputer-based software to capture, encode, retrieve, process, and display many types of geographic data in conducting site analysis studies and cartographic modeling. Prereq: Any geography or geology course, or cons instr.
118. Senior Research Seminar. 2 cr. Written and oral presentation of a geographical research project. Topics emphasized include problem formulation and hypothesis testing, and research design and methods. Prereq: 276, 380, and sr st .
For more course listings in geography, see the Latent Course List at the end of this section.

## GEOLOGY

## (College of Letters and Science)

Gary C. Meyer, Geography and Geology Department Chair
Room D-332, Science Building
Phone: (715) 346-2629

## Geology Minor

Consists of 22 credits:

1. Geology 104 and 105 , or 101 and 105;
2. Geology 200 and 201;
3. Remaining credits selected from Geology 310, 340, 350, 360, 370, 380, 391, 393, 395; Geography 276, 352, 375, 377, 379; Biology 311.

## Courses in Geology

100. Geology and Man. 3 cr . Application of geological knowledge to human activities encountered in the physical environment; approaches for reducing harmful effects of human interaction with the geologic environment. Two hrs lec, two hrs lab per wk; field trip(s) may be required. (This
course may not be applied toward general degree requirements if 101 is also taken.) GDR:NS
101. Principles of Geology. 5 , cr. Introduction to the field of geology: materials, processes, and history of the earth. Three hrs lec, four hrs lab per wk; field trip(s) may be required. (This course may not be applied toward general degree requirements if 100 is also taken.) GDR:NS
102. Physical Geology. 4 cr . Introduction to the study of minerals and rocks and processes which act upon and within the earth. Three hrs lec, two hrs lab per wk; field trip(s) may be required. GDR:NS
103. Historical Geology. 4 cr . Survey of the history of the earth and life; emphasis on the evolution of continents. Three hrs lec, two hrs lab per wk; field trip(s) may be required. Prereq: 104. GDR:NS
104. Mineralogy. 3 cr. Introduction to descriptive mineralogy with emphasis on the common ore and rock forming materials. Prereq: 101 or 104; or Chemistry 105 or 115.
105. Structural Geology. 3 cr. Properties, relationships, and positions of the component rock masses of the earth; graphic and stereographic projection methods of solving structural problems. Prereq: 101 or 104 or equiv.
106. Directed Study. 1 or 2 cr. Students may, by prior agreement with an instructor, arrange for directed study of a geological topic. Prereq: Cons instr.
107. Petrology. 3 cr . Introduction to the study of the formation, identification, and classification of rocks; emphasis on hand specimen identification. Two hrs lec, two hrs lab per wk. Prereq: 200.
108. Geology of Our National Parks. 2 cr. Geology and natural environment of selected American national parks and monuments and other points of scientific interest open to the public. Physical features explained both as examples of specific natural processes and as representative examples of conditions in the surrounding geological provinces. May be taken on a pass/fail basis except by students majoring or minoring in geography, geology, or earth science. Prereq: Jr st.
$340 / 540$. Sedimentology. 3 cr . The processes of weathering, transportation, deposition, and lithification which produce the detrital, biochemical, and chemical sedimentary rocks. Two hrs lec, two hrs lab per wk; field trip(s) may be required. Prereq: 104.
370/570. Glacial Geology. 3 cr . The origin and development of glacial features and related phenomena over the last three million years; field trips may be required. Prereq: 104 or Geography 103 or cons instr.
$380 / 580$. Oceanography. 3 cr . Scientific survey of the oceans in their physical, chemical, biological, and geological aspects.
109. Special Topics. 1 to 3 cr . Topics of interest to be treated from the geological point of view. A subtitle will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 101 or 104 or equiv.
393/593. Field Trip in Geology. 1-3 cr. Direct observation of geological phenomena; required readings and field notebook. May be repeated with change in locale or topic. Credit may not be earned in both Geology 393 and Anthropology 393 under the same locale or topic. Field trip fee may be required.
110. Directed Study. 1-3 cr. Students may, by prior agreement with an instructor, arrange for directed study of a geological topic. Prereq: Cons instr, and a 300 -level course in geology.
For more course listings in geology, see the Latent Course List at the end of this section.

GERMAN
See Foreign Language.
GERONTOLOGY
See Sociology.

## HEALTH EDUCATION

See Health Promotion/Physical Education.

## HEALTH PROMOTION/PHYSICAL EDUCATION

(College of Professional Studies)
John W, Munson, Associate Dean and Head, School of Health, Physical Education, Recreation, and Athletics (HPERA)
Room 127, Physical Education Building
Phone: (715) 346-3147
Faculty, Amiot, Biddlestone, Blair, Bowen, Counsell, Crandall, Gorell, Gotham, Hebert, Herrold, L. Hill, Hoff, Huettig, Kasson, LeRoy, Mazzolini, J. Miech, S. Miech, Munson, Page, Schoen, R. Steiner, R. Witt, Wunder.
Note: Courses leading to the completion of a professional program offered in the School of Health, Physical Education, Recreation, and Athletics (physical education, coaching, health education, health promotion/wellness, physical education for the exceptional individual, recreation, safety) may NOT be taken pass-fail.
Health Promotion/Physical Education Major
Consists of two options:

1. Comprehensive physical education for K-12 teacher certification, 54 credits:
a. Physical Education $105,120,125,126,127,128,225$, $252,271,310,312,331,332,360,380,391,428$; General Physical Education 146, 147, Physical Education for the Exceptional Individual 300, 301; Coaching 351; and (collateral courses) Dance Education 217, and Biology 285.
b. Initial laboratory science: Biology 160 , and either Chemistry 101 or Physics 101.
c. A minor is highly recommended to enhance employment opportunities.
d. Please refer to Education section earlier in this catalog for information about admission to the Professional Education Program and teacher certification.
e. You must earn a grade of " C " or better in courses taken in the major. If you earn a "C-" or lower, you must repeat the course.
2. Health promotion/wellness, $58-61$ credits:
a. Physical Education 126, 252, 312; Health Ed 104, 145; Health Promotion/Wellness 101/201/301/401, $285,300,320,360,400$, PEX 319.
b. Collateral courses: Biology 285, 319; Human

Development 261; Food and Nutrition 351; Natural Resources 370, Psychology 385.
c. After receiving approval from your HPERA adviser, complete ONE of the following:

1) A minor of $18-25$ credits: business, communication, gerontology, health education, nutrition, psychology, recreation, sociology, camp and youth agency administration and programming. (Please find specific requirements for each minor in that department's listings.)
2) A 12 - to 15 -credit career focus cluster.
3) Two 9 -credit career orientation sequences.
d. You must pass Health Promotion/Wellness 360 (Practicum) with at least a grade of " $B$ " before you will be allowed to apply for an internship experience. You can repeat the course until you earn a "B."
e. You need a 2.75 cumulative grade point average to be accepted for an internship.

## Career Focus Clusters for the Health

## Promotion/Wellness Option

Each cluster of courses will provide you with the opportunity to explore one special interest area in the field of health promotion/wellness. You must have your adviser's approval before starting a career focus cluster.

1. Child and Family: Human Development 166, 362, 367, 466; Early Childhood Education 462.
2. Gerontology: Psychology 498, Sociology 265, 366; and 6 credits from Communicative Disorders 352 , Economics 328, Home Economics Education 390, Food and Nutrition 458; Political Science 306, Psychology 491, Sociology $260,308,328,367,460,467,497-499$.
3. Nutrition: Food and Nutrition 106, 357, 393, $456,458$.
4. Psychology: Psychology $351,480,485$, and 6 credits in psychophysiology.
5. Social Foundation of Health: Anthropology 295, Sociology 308, 368, 467, Political Science 306.
6. Sport Specialist: Physical Education 271, Coaching 351, 371, 372, 381.
7. Youth Agency Programming and Camp Management: Natural Resources 368, 376, 382, 383.

## Career Orientation Sequences for the Health

Promotion/Wellness Option
This sampling of courses will provide you with an opportunity for breadth within the health promotion/wellness field. You must have your adviser's approval before beginning a career orientation sequence.

1. Adult Education: Human Development 166; Home Economics Education 390, 391.
2. Biofeedback Technician: Psychology 485 and 6 credits in psychophysiology.
3. Care and Prevention of Injuries: Physical Education 253, 271, Coaching 351, 397.
4. Child and Family: Human Development $166,362,367$.
5. Gerontology: Sociology 265, 366; Psychology 495.
6. Health Education: Health Education 140, 340 , Education 388.
7. Health Psychology/Behavioral Medicine: Psychology $320,480,485$.
8. Media Presentations: Instructional Resources: 231, 331, 332.
9. Nutrition, Food and Nutrition $106,357,456$.
10. Physical Education for the Exceptional Individual: PEX 250, 300, 315, 397.
11. Recreation: Recreation 141, 142, 241.
12. Social Foundations of Health: Anthropology 295; Sociology 308, 368.

## Physical Education for the Exceptional Individual Minor

Consists of 23 credits:

1. Required courses: PEX 200, 305, 315, 335, 397; Communicative Disorders 252; Education 398. One course from Education 353, 354, or 366. One course from Human Development 261, Psychology 260, or Sociology 265 to meet the social science requirement.
2. Recommended collateral courses: Communicative Disorders 108; Psychology 301, 375; Recreation 141; Safety Education 277.

## Coaching Minor

## Consists of 23 credits:

1. Coaching 181, 351, 361, 371, 372; Physical Education 271, 391.
2. At least three courses from Coaching 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293.

## Health Education Minor

Consists of 22 credits:

1. Biology 285; Health Education 104, (three modules), 140, 145, 340; Food and Nutrition 351; Physical Education 253 or 353.
2. The remaining 2 or 3 credits selected from: Biology 333, 383; Communication 390; Education 388; Instructional Resources 331; Physical Education 102, 254; Psychology 315; Safety Education 177, 393; Sociology 224, 240, 308.

If you are preparing to teach, you must take Health Education 427 and Education 398 (Student Teaching) at all levels in which you are seeking certification.

## Recreation Minor

Consists of 22 credits:

1. Recreation 141, 142, 241, 343; Safety Education 177; Forestry 227.
2. At least 6 credits from the following: Art 348; Dance 103, 108, 110, 216; Dance Education 217; Drama 383; Education 350; Forestry 330, 394, 480; Geography 101; Natural Resources 370.

## Safety Education Minor

Consists of 24 credits:

1. Safety Education 177, 277, 379, 380, 392, 393; Physical Education 252.
2. At least 6 credits from the following: Safety Education 220, 306, 374, 397; Instructional Resources 331, 332; Psychology 301, 315, 351; Sociology 230, 312, 332.
Note: Certification for high school driver education instructors requires Safety Education 177, 277, 379, $392 / 592,393 / 593$, and a teaching certificate.
If you are minoring in safety education and wish to teach driver education and/or safety education, you must take 3 to 5 credits of Education 398 in driver and safety education, in addition to Education 398 in your major field.

## Health Promotion/Wellness Career Orientation Cluster for Nonmajors

Consists of 16 credits. Take Physical Education 126, Health Education 104, 145; Health Promotion/Wellness 300, 320, 360.

## Athletic Training Course Sequence

These 16 credits lead to eventual certification from the National Athletic Trainer's Association as a certified athletic trainer. This sequence is offered in combination
with the comprehensive physical education (K-12) teaching major. Take Health Education 104; Coaching 372, 381. Choose one from each pair: Food and Nutrition 253 or 351; Psychology 260 or 315.

## Adapted Physical Education 860 Add-On Certification

This sequence must be completed with the comprehensive physical education (K-12) teaching major in order to receive the 860 add-on certification. Take Physical Education for the Exceptional Individual 300, 301, 315, 351. Choose one course from Education 353, 354, 366.

## Courses in General Physical Education (GPE)

100 to 199. General Physical Education. 1 cr each. Developmental, individual, recreational, and educational activities which lead to health maintenance, cardiovascular efficiency, fitness and self-care skills. Specific activities and course numbers will be listed in the timetable.

## Notes:

1. In order to get a bachelor's degree, you must take 4 credits of general physical education (GPE), 2 credits in aerobics/activities courses and 2 credits in health enhancement courses. All GPE courses except those between 140 and 151 apply to the aerobics/activities category. GPE 140 through 151 apply to the health enhancement category, as do Physical Education 102 and 252, Health Education 104 and 240, Food and Nutrition 151 and Human Development 367, Psychology 255 and 290, and Safety Education 177. You may not repeat courses for this requirement. You may apply only ONE credit of athletics or intramurals toward the 4 -credit graduation requirement. A specially designed physical education program is available if you have a disability or chronic medical problem. Please contact the HPERA office for more information.
2. ATTENTION ATHLETES: WSUC/WWIAC eligibility rules require a 12 -hour study load in each semester. General Physical Education 195 and 196 (Athletics) may not be counted in these 12 credits.
3. If you tranfser to this university, you are expected to fulfill the physical education requirement on the basis of 1 credit per year at UW-SP.
4. You may take more than 4 credits of general physical education courses. Credit in these courses will satisfy general elective options, and will count toward graduation.

## Courses in Coaching

181. Theory and Techniques of Officiating. 2 cr . Mechanics and techniques of officiating interscholastic athletic contests; field work required; preparation for WIAA certification.
282-293. Coaching of Specific Sports. Each 2 cr . Theory and techniques, training schedules, strategy, coaching methods, and conditioning. Prereq: So st.
182. Basketball; 283. Wrestling; 284. Football; 285. Baseball; 286. Track and Field; 287. Soccer; 288. Ice Hockey; 289. Swimming; 290. Volleyball; 291. Tennis; 292. Gymnastics; 293. Golf.
183. Athletic Training and Taping. 2 cr . Cause, treatment, and prevention of injuries common to athletic activities; taping, bandaging; discussion of such topics as rehabilitation, conditioning, and variable factors of athletic performance levels. Prereq: Valid first aid certificate or medical self-help certificate; Phy Ed 271.
184. Practicum in Coaching. 2 cr. Practical experiences in coaching sports at various educational levels. One hr lec, two hrs lab per wk. Prereq. Phy Ed 181 and at least two coaching theory courses.
185. Scientific Concepts of Coaching. 3 cr. Principles of mechanics and laws of physics, physiological phenomenon of activity. Prereq: Phy Ed. 271.
186. Motivational Aspects of the Athlete. 3 cr. The sociocultural aspects of sports as they apply to human movement.
187. Advanced Athletic Training. 3 cr. Advanced evaluation and rehabilitation procedures of the athlete. Prereq. 351, 371; or Physical Education 312.
397/597. Workshop in Coaching. Variable credit, Designed to allow students to participate in special experiences relating to their minor program. A subtitle will be added each time the course is offered. May be repeated for a maximum of 6 credits.
188. Special Work. Upperclass students minoring in coaching may arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project. Work must be prearranged and a statement filed in the office of the coordinator of Professional Studies in the School of HPERA prior to the beginning of the work. Prereq: Consent of the supervising faculty member and of the coordinator.
189. Seminar in Current Issues. 1 to 3 cr. Specific focus will be indicated by a subtitle each time the course is offered.
190. Independent Study. 1 to 3 cr, Planned study designed to enrich and supplement the student's preparation in the area of specialization; regularly scheduled conferences with a staff supervisor, through arrangement with the head of HPERA.
191. Workshop in Coaching. Variable credit. Designed to allow graduate students to participate in special graduate level experiences relating to their major program. A subtitle will be added each time the course is offered. May be repeated for a maximum of 6 credits.

## Courses in Health Education

104. Current Health Issues. 1 to 4 cr. Health topics emphasizing factual information to provide the student with essential knowledge for healthful living. GDR:PE/HE

Module 1: Wellness, fitnéss, consumer health, 1 cr .
Module 2: Mental and emotional health, sexuality, 1 cr . Module 3: Alcohol and other drugs, 1 cr.
Module 4: Disease, immune process, environment and health, 1 cr.
140. Responsible Sexuality. 2 cr . Sexual development in America, reproduction and contraception, and related issues, development of skills in presenting this knowledge to children in classroom and family settings. GDR:PE/HE
145. Introduction to Health Education/Promotion. 3 cr. Development of health/wellness in the school, community, and worksite, based on a public health context. Emphasis on the development of the health education/promotion professional.
280. Health Education in the Elementary School. 3 cr. Principles, techniques, and materials applied to teaching health in the elementary school; collateral emphasis on personal health behavior. Prereq: So st.
340. Curriculum and Resources in Health Education. 3 cr.

Curriculum design, content, and resources, with practical experience and field problems in health education and community resources. Prereq: 104, 144.
397/597. Workshop in Health Education. Variable credit. Designed to allow students to participate in special experiences relating to their minor program. A subtitle will be added each time the course is offered. May be repeated for a maximum of 6 credits.
399. Special Work. Upperclass students minoring in health education may arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project. Work must be prearranged and a statement filed in the office of the coordinator of Professional Studies in the School of HPERA prior to the beginning of the work. Prereq: Consent of the supervising faculty member and of the coordinator.
427. Techniques in Elementary and Secondary Education:

Health Education. 2 cr. Aims, methods, materials, techniques, planning, organization, testing, etc., as applied in elementary and secondary teaching. May be taken no earlier than one semester prior to student teaching.
790. Seminar in Current Issues, 1 to 3 cr. Specific focus will be indicated by a subtitle each time the course is offered.
796. Independent Study. 1 to 3 cr . Planned study designed to enrich and supplement the student's preparation in the area of specialization; regularly scheduled conferences with a staff supervisor, through arrangement with the head of HPERA.
797. Workshop in Health Education. Variable credit. Designed to allow graduate students to participate in special graduate level experiences relating to their major program. A subtitle will be added each time the course is offered. May be repeated for a maximum of 6 credits.

## Courses in Health Promotion/Wellness

101/201/301/401. Current Issues in Health
Promotion/Wellness. 4 cr ( 1 cr each). A series of lectures, discussions, and experiences related to critical/current issues essential to professionals in health promotion/wellness. Prereq. Take courses in order.
285. Introduction to Human Anatomy. 1 cr. An introduction to the skeletal, muscular, circulatory, respiratory, and nervous systems. Prereq: Biology 160; con reg in Biology 285 recommended.
300. Health Promotion Program Management. 3 cr. Development of health promotion/wellness programs for community and worksite settings. Assessment, evaluation, program design, and program development. Health promotion/wellness strategies for individuals and organizations. Prereq. Health Ed 145.
320. Developing Stress Management Programs. 2 cr. Strategies for reduction of stressors and subsequent enhancement of health/wellness through time management, assertiveness training, and relaxation techniques. Assessment, prescription, and program development. Prereq: Health Ed 145.
360. Practicum in Health Promotion/Wellness. 3 cr . Practical experience as a preprofessional in health promotion/wellness, with an emphasis on teaching/presentation methods. Prereq. Completion of all freshman and sophomore HP/W requirements.
400. Internship in Health Promotion/Wellness. 12-15 cr. A full semester participation in a community or worksite health promotion/wellness setting. Prereq: Completion of ALL coursework; a grade of B or higher in HP/W 360; a 2.75 cumulative grade point average.

## Courses in Physical Education

102. The Healthy American. 2 cr. Design, prescription, and implementation of personal exercise programs; life-style assessment, diet techniques, stress management fitness theory. Eight wks lec (two hrs per wk), eight wks independent activity study. GDR:PE/HE
103. Introduction and Principles of Physical Education. 2 cr. Philosophy, aims, and objectives; leadership qualities necessary to major in physical education.
104. Foundations of Motor Learning. 3 cr . Introduction to motor learning theory, principles, and practices as related to exercise programming, physical conditioning, and motor skill development.
125-128. Introductory Teaching Skills. 2 cr each. 125. Softball, field sports, basketball, volleyball (fall). 126. Aerobic dance, yoga, personal defense, weight training, exercise prescription (spring).
105. Tennis, archery, golf, badminton (fall). 128. Winter recreation, bowling, cycling, inside recreation, track and field (spring).
106. Independent Study. 1-3 cr. Students may arrange for work not normally available through regular courses. Work must be prearranged and a statement filed with the associate dean (or representative) prior to beginning of work. General physical education substitutions may be approved. Prereq: Consent of supervising faculty member.
107. Gymnastics. 2 cr . Principles and techniques of teaching gymnastics. Prereq: So st and cons instr; limited to majors in physical education. GDR:PE/AA

## 231. Physical Education for the Elementary Classroom

Teacher. 3 cr . A conceptual approach to gross motor development, perception, and motor patterns of children through the third grade. Lectures, collateral reading, research, and field trips. Required of all students in the primary education curriculum. Three hrs per wk plus field work. Prereq: So st. GDR:PE/AA
232. Physical Education for the Elementary Classroom. 3 cr. A continuation of 231 with emphasis on grades four through six. Lectures, collateral reading, research, and field trips. Required of all students in the intermediate-upper elementary education curriculum. Three hrs per wk plus field work. Prereq: So st.
252. Standard First Aid, Personal Safety, and Cardiopulmonary Resuscitation. 2 cr. American Red Cross
first aid and CPR training, with certificate issued on satisfactory completion of course. GDR:HE/PE
253. Standard First Aid and CPR Instructors. 2 cr. Medical self-help and CPR training and preparation for teaching as prescribed by the American Red Cross; certificate of authorization granted on satisfactory completion of course. Prereq: Valid standard first aid and CPR certificates.
254. Advanced First Aid and Emergency Care. 2 cr . American Red Cross Advanced Training with certificate issued on satisfactory completion of course. Red Cross requires that the candidate for certification must be 18 years of age before the certificate will be granted.
271. Human Anatomy. 3 cr. The skeletal, muscular, circulatory, respiratory, and nervous systems of the human body. Prereq: So st.
310. Kinesiology. Study of body movement and principles which affect movement. Prereq: 271, or cons instr.
312. Physiology of Exercise. 3 cr. Effects of exercises of speed, strength, skill, and endurance; nature of muscular behavior; fatigue; effects of exercise with respect to nutrition, age, sex, and occupation. Prereq: Biology 285.
331. Physical Education for the Elementary School. 3 cr. The physical education program at the elementary school, with emphasis on preschool through grade three; field work required. Enrollment limited to students majoring in physical education.
332. Physical Education for the Elementary School. 3 cr. Continuation of 331 with emphasis on grades four through eight; field work required. Prereq: 331.
353. Advanced First Aid Instructors. 1 cr. Preparation for teaching Advanced First Aid prescribed by American Red Cross; certificate of authorization granted on satisfactory completion of the course. Prereq: Valid advanced first aid certificate; Red Cross requires that the candidate for certification must be 21 years of age before the certificate will be granted.
360. Practicum in Physical Education. 2 cr. Practical experience in working with individuals in schools or wellness sites; must be taken prior to student teaching or internship. Prereq: Cons instr.
380. Tests and Measurements in Physical Education. 3 cr. Analysis and construction of tests, interpretation of data and measurements in physical education.
391. Organization and Administration of Physical Education and Athletics. 2 cr . The school program in physical education and athletics; problems of the administration of gymnasia, playgrounds, pools, locker rooms, interscholastic athletics and intramurals; management of the business affairs of each type of program.
395. Seminar in Physical Education, Health, and Recreation. 1 cr . Current developments in physical education, health, and recreation. Prereq: Sr st for physical education majors.
397/597. Workshop in Physical Education. Variable credit. Designed to allow students to participate in special experiences relating to their major program. A subtitle will be added each time the course is offered. May be repeated for a maximum of 6 credits.
399. Special Work. Upperclass students majoring in physical education may arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project. Work must be prearranged and a statement filed in the office of the coordinator of Professional Studies in the School of Health, Physical Education, Recreation, and Athletics prior to the beginning of the work. Prereq: Consent of the supervising faculty member and of the coordinator.
428. Techniques and Curriculum in Secondary Education: Physical Education. 3 cr . Methods, materials, and fundamental principles in curriculum development; may be taken no earlier than one semester prior to student teaching.
775. Motor Development in the Exceptional Child, 3 cr. A study of children with exceptional needs to determine types of gross, fine, and perceptual-motor activities best suited to individual development. Two hrs (minimum) practicum per wk.
790. Seminar in Current Issues, 1 to 3 cr. Specific focus will be indicated by a subtitle each time the course is offered.
796. Independent Study. 1 to 3 cr. Planned study designed to enrich and supplement the student's preparation in the area of specialization, regularly scheduled conferences with a staff supervisor, through arrangement with the head of HPERA.
797. Workshop in Physical Education. Variable credit. Designed to allow graduate students to participate in special graduate level experiences relating to their major program. A subtitle will be added each time the course is offered. May be repeated for a maximum of 6 credits.
For more course listings in physical education, see the Latent Course List at the end of this section.

## Courses in Physical Education for the Exceptional Individual (PEX)

200. Neurodevelopmental Physical Education for Exceptional Individuals. 3 cr , Legislative/litigative trends, development of the Individualized Education programs, program organization, and transdisciplinary provision of services. Prereq. Con reg in Education 351.
201. Wellness for the Challenged. 2 cr. Development of health promotion/wellness programs for the physically, mentally, and emotionally challenged. Prereq: Health Ed 145.
202. Physical Education for Exceptional Individuals. 2 cr . Intervention strategies in the psychomotor domain. Prereq: Con reg in 301, Education 351 or con reg.
203. Physical Education for Exceptional Individuals:

Practicum. 1 cr. "Hands-on" intervention with
handicapped children in aquatics and motor development. Prereq. Education 351 or con reg.
305. Motor Development 2 cr. Motor development in the nonhandicapped; examination of developmental delay and abnormality in the motor behavior of the handicapped. Prereq. 300,301 ; or cons instr.
315. (Formerly Physical Education 315) Activities for the Exceptional Individual. 3 cr. Activity selection, curricular development, and program implementation in teaching and other types of recreational/fitness programs.
319. Exercise, Recreation, and Health Enhancement for the Elderly. 2 cr. Assessment and prescription of exercise and recreation and health enhancement/disease prevention programming for the elderly. Prereq. Biology 319 or con reg.
335. Assessment and Prescription in the Motor Domain for Exceptional Individuals, 2 cr. Prereq, 300,301 .
397. Workshop in HPERA and Safety for Exceptional Individuals. Variable cr. Intensive hands-on experience with exceptional individuals.

## Courses in Recreation

141. Recreation for Special Populations. 3 cr. Recreation for mentally retarded, youthful offenders, mentally ill, alcohol and drug addicts, physically disabled, deprived, racial minorities, and the aged.
142. Community Recreation. 3 cr. Problems involved in setting up recreation programs on a yearly basis.
143. Camp Leadership. 2 cr. Theory and practice in camp craft, problems of cabin living, counselor training, waterfront laboratory, nature study, handicrafts and special projects, field trips and supplementary reading. Prereq. So st.
144. Group Games and Social Recreation. 2 cr. Quiet games, singing and folk games, and games of low organization suitable for home, school, and community recreation; supplemental to 142.
397/597. Workshop in Recreation. Variable credit. Designed to allow students to participate in special experiences relating to their minor program, A subtitle will be added each time the course is offered. May be repeated for a maximum of 6 credits.
145. Special Work. Upperclass students minoring in recreation may arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project. Work must be prearranged and a statement filed in the office of the coordinator of Professional Studies in the School of HPERA prior to the beginning of the work. Prereq: Consent of the supervising faculty member and of the coordinator.
146. Seminar in Current Issues. 1 to 3 cr. Specific focus will be indicated by a subtitle each time the course is offered.
147. Independent Study. 1 to 3 cr , Planned study designed to enrich and supplement the student's preparation in the area of specialization; regularly scheduled conference with a staff supervisor, through arrangement with the head of HPERA.
148. Workshop in Recreation. Variable credit. Designed to allow graduate students to participate in special graduate level experiences relating to their major program. A subtitle will be added each time the course is offered. May be repeated for a maximum of 6 credits.

## Courses in Safety Education

177. Beginning Safety Education. 3 cr. Organization, administration, and teaching of safety in home, highway, water, athletic, recreation, and industrial areas.
GDR:PE/HE
178. Pre- and Elementary School Safety. 2 cr. Methods, materials, and techniques as applied to pre-and elementary school teaching of safety, with program content suitable on a progressive basis for each grade level. Prereq: 177 .
179. Driver Education, 3 cr. Organization, administration, and teaching of driver education and training, requires the instruction of a new driver with the dual-control training car outside regular class hours. Prereq. So st.
180. Safety Instructor Certification. 1 cr. Preparation of qualified instructors to teach courses in boating, hunter, and snowmobile safety, as prescribed by the Department of Natural Resources; ethics and public controversies relative to the three areas. Each time the course is offered a subtitle indicating the area of certification will be added.
May be repeated under different subtitles for a maximum of 3 credits. Credit may not be earned in both Safety Education 278 and Natural Resources 210. Prereq: So st.
181. Industrial and Institutional Safety. 2 cr. Overview of occupational accident prevention programs, techniques of measurement, cost of accidents, locating and identifying
accident sources, problems of correcting difficult hazards, award programs, and psychology of accident prevention in various types of industries and institutions. Prereq: 177.
182. Advanced Driver and Safety Education. 3 cr. For personnel in safety and driver education; designed to develop concepts related to traffic safety, traffic law and enforcement, engineering, school transportation, research, teaching methods by using simulated and multiple car plan, and area program administration. Prereq: 177 and 378.
183. The Special Student in Driver Education. 2 cr. Methods, techniques, scheduling, psychological approach to teaching the special student in driver education; selection and purchase of equipment for the handicapped. Prereq: 177, 277, 379.
392/592. Behavioral Aspects of Accident Prevention. 3 cr . The relationship between physiological, psychological, and sociological factors which influence safe behavior and modification of unsafe behavior; problems, causes of accidents, and the application of the principles of psychology in the development of safe traffic behavior. Prereq: 177, 277, and 379; Psych 315 highly recommended.
393/593. Alcohol and Other Drugs; Implications for Traffic Safety. 3 cr . The study of the physiological, psychological, and sociological problems of alcohol, drug use and abuse, as they relate to traffic safety; methods of instruction for the high school student. Prereq: 177, 277, and 379; Psych 315 highly recommended.
397/597. Workshop in Safety Education. Variable credit. Designed to allow students to participate in special experiences relating to their minor program. A subtitle will be added each time the course is offered. May be repeated for a maximum of 3 credits.
184. Special Work. Upperclass students minoring in safety education may arrange for special out-of-class work for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project. Work must be prearranged and a statement filed in the office of the coordinator of Professional Studies in the School of HPERA prior to the beginning of the work. Prereq: Consent of the supervising faculty member and of the coordinator.
185. Seminar in Current Issues. 1 to 3 cr . Specific focus will be indicated by a subtitle each time the course is offered.
186. Independent Study. 1 to 3 cr . Planned study designed to enrich and supplement the student's preparation in the area of specialization; regularly scheduled conferences with a staff supervisor, through arrangement with the head of HPERA.
187. Workshop in Safety Education. Variable credit. Designed to allow graduate students to participate in special graduate level experiences relating to their major program. A subtitle will be added each time the course is offered. May be repeated for a maximum of 6 credits.

## HISTORY

## (College of Letters and Science)

Robert J. Knowlton, Chair
Room 424, College of Professional Studies Building Phone: (715) 346-2334
Faculty: Donald Dietrich, Face, R. Knowlton, N. Lewis, Marion, Mertz, Morrison, Nelson, J. Paul, W. Paul, Pistono, Roberts, C. Rumsey, W. Skelton, Walker, Wick, Wrone.

The Department of History offers several options in its freshman-level courses:

1. History $105,106,107,108$ : a four-semester sequence which allows you to concentrate on specific periods in European history:
a. History 105-106: two-semester survey of ancient and medieval civilizations.
b. History 106-107: two semester survey of medievalearly modern civilizations, from late antiquity to the 19th century.
c. History 107-108: two semester survey of modern European civilization, from the 16 th century to the present.
2. History 120,130 (minority and ethnic groups).

## NOTES:

1. Approval for graduation as a history major or minor requires an overall grade point average of 2.00 (2.75 to student teach) in all courses taken within the history major or minor, regardless of declaration of academic bankruptcy.
2. No more than 6 credits of History 399 may be accepted toward the major or minor in History.

## History Major

Consists of at least 38 credits:

1. Twelve credits from basic courses: 3 to 6 credits selected from each major area ( $a, b$, and $c$ ):
a. $105,106,107,108$.
b. $215,216,219,220,253,254$.
c. 211, 212.
2. Twenty-four credits from advanced courses: at least 6 credits from each major area ( $a, b$, and $c$ ):
a. European: 3 credits from ancient-medieval eras: 302, $304,305,306,307,308,309,310,311$. Three credits from early modern-modern eras: $313,315,316,327$, 330, 331, 332, 333, 334, 339, 340.
b. Non-Western: 3 credits of history from two of the following areas: (a) Middle East 318, 319; (b) Russia 337, 338; (c) Africa 343; (d) Asia 344, 345, 356, 347, 348, 349, 350, 351; (e) Latin America 352.
c. United States: 3 credits from period courses: 356, $357,358,359,360$. Three credits from regional or subject courses: $366,368,369,371,372,373,374$, 377, 378, 379, 382, 383, 385, 389.
d. Six additional credits from any 300 -level history courses.
3. Two or 3 credits from senior professional emphasis courses: 489 or 490 .

## History Major with Concentration in Minority and Ethnic Studies

Consists of at least 46 credits:

1. Six credits from History 120, 130, 287.
2. History 211, 212.
3. Six credits from $105,106,107,108$.
4. At least 18 credits distributed as follows:
a. Nine credits from History 379, 382, 385.
b. Six credits from History $313,316,327,338,340$, $343,346,348,352$.
c. One credit of History 399, arranged with the adviser.
d. History 489 or 490.
5. At least 10 credits from the following but no more than 6 in any one category.
a. Humanities: English 240, 280, 282, 382; Music 102.
b. Social Science: Anthropology 339, 371; Geography 373; Political Science 309, 312, 315; Sociology 270, 305, 490 (when an appropriate subtitle is indicated).

## History Minor

Consists of at least 24 credits distributed as follows:

1. Twelve credits from basic courses: 3 to 6 credits selected from each major area ( $a, b$, and $c$ ):
a. $105,106,107,108$.
b. $215,216,219,220,253,254$.
c. 211,212 .
2. Twelve credits from advanced courses: at least 3 credits from each area ( $\mathrm{a}, \mathrm{b}$, and c):
a. European: 302, 304, 305, 306, 307, 308, 309, 310, $311,313,315,316,327,330,331,332,333,334$, $339,340$.
b. Non-Western: $318,319,337,338,343,344,345,346$, $347,348,349,350,351,352$.
c. United States: $356,357,358,359,360,366,368,369$, $371,372,373,374,377,378,379,382,383,385$, 389.

Additional credits to total a minimum of 12 may be taken from any 300 -level history courses.
It is recommended that history minors also take 2 or 3 credits from senior professional emphasis courses: 489 or 490 .

## Courses in History

The * indicates that these topical courses may be repeated for credit under different subtitles.
105. Ancient History. 3 cr. Ancient Near East, Greece, and Rome. GDR:HI
106. Medieval History. 3 cr, Europe and the Mediterranean world, fourth to 16 th centuries. GDR:HI
107. Early Modern European History. 3 cr. Sixteenth to 19th centuries, GDR:HI
108. Modern Europe. 3 cr. Nineteenth and 20 th centuries. GDR:HI
120. Ethnic Groups in Europe, 3 cr Modern European ethnic and cultural groups, origins, accomplishments, current trends. GDR:HL BS BM/BFA
130. Racial and Ethnic Groups in the United States. 3 cr . Origins, accomplishments, current trends. GDR:HI BS BM/BFA
211. United States to 1865. 3 cr. Prereq. So st. GDR:HI
212. United States Since 1865. 3 cr. Prereq: So st. GDR:HI
215(NW). East Asian Civilization to 1800, 3 cr. Traditional cultures, religions, thought, and institutions of China, Korea, Japan, and Vietnam. GDR:HI BA; HU4 BS
216(NW). East Asia Since 1800. 3 cr. China, Korea, Japan, and Vietnam, imperialism, modernization, nationalism, revolutions, and independence struggles. GDR:HI BA, HU4 BS
219(NW). Middle East to 1798. 3 cr. Middle Eastern peoples and religions, Islamic civilization, culture, traditions, and institutions from the time of Muhammed to 1798. GDR:HI BA; HU4 BS

220(NW). Middle East Since 1798. 3 cr. Middle Eastern political, social, and economic problems: confrontation with European imperialism, the impact of two world wars; creation of independent states, development of Arab-Israeli conflict, impact of oil, and the resurgence of Islam.
GDR:HI BA; HU4 BS
225. Southeast Asia. 3 cr. Survey of the traditional cultures of Southeast Asia; the establishment of Western colonial rule; the development of independent national governments, decolonization. To be offered -only - in
the Far East Program. Prereq: So st or consent of the chair of the History Department.
253(NW). Colonial Latin America, 2 or 3 cr. European discoveries to independence. Prereq. So st. GDR:HI BA; HU4 BS
*254(NW). Latin American Issues. 1 to 3 cr. Problems and issues in 19th and 20th century Latin American history. Topics will be announced in the timetable. May be repeated under different subtitles. Prereq: So st. GDR:HI BA; HU4 BS
274/374. United States Military History. 3 cr. Role of the military in American life; colonial period to the present. Credit may not be earned in more than one of these: History 274, 374; Military Science 212. Prereq, So st.
287. Menominee History and Culture. 3 cr. The history and culture of a Woodland Indian tribe from the earliest times to the present.
*291/391. Contemporary Historical Problems. 1, 2, or 3 cr. Topics dealing in contemporary history, to be announced. Prereq: So st.
302/502. Western Culture. 3 cr . Roman period to contemporary times. Topics will be announced. Offered only in UW-SP overseas programs. GDR:HU4 BS
304/504. Ancient Greece. 3 cr. GDR:HU4 BS
305/505. Ancient Rome. 3 cr. GDR:HU4 BS
*306/506. Studies in Antiquity. 2 or 3 cr. Topics and area will be announced in the timetable. GDR:HU4 BS
307/507. Medieval Europe. 3 cr. Fourth to 12th centuries. GDR:HI BA
308/508. Medieval Europe, 3 cr. Twelfth to 16 th centuries. GDR:HI BA
*309/509. Medieval Studies. 3 cr. Topic will be announced in the timetable. GDR.HU4 BS
310/510. Medieval Thought and Letters. 3 cr . Intellectual history of Europe: fourth to 15 th centuries. GDR: HU4 BS
311/511. Age of the Crusades. 2 or 3 cr. Eleventh century Europe, the Mediterranean, the crusades.
312. History Regional. 3 cr. History informed by visits to historic locations and cultural centers. Students will do appropriate study and writing. Subtitle will indicate the focus. Offered only in UW-SP overseas programs.
GDR:HU4 BS
313/513. Women in European History. 2 or 3 cr. From the Middle Ages to the present. GDR:HU4 BS
315/515. The Renaissance. 2 or 3 cr. Fourteenth and 15 th century Europe, GDR:HU4 BS
*316/516. The Reformation. 1 or 2 or 3 cr. Topics in 16 th and 17 th century Europe will be announced in the timetable. GDR:HU4 BS
$318 / 518$ (NW). The Arab-Israeli Conflict. 3 cr. The origins, development, and consequences of the Arab-Israeli conflict. GDR:HU4 BS
319/519(NW). Oil and Politics in the Middle East. 3 cr.
The impact of natural resource development, especially oil, in the modern Middle East. GDR:HU4 BS
*321/521. European Social and Intellectual History. 3 cr. Topics and area will be announced in the timetable.
GDR:HU4 BS
*327/527. Recent World Politics. 3 cr. Selected topics in world history, 1919 to the present. Prereq: 108, 212.
330. Modern Germany, 3 cr. German culture, society, and institutions, 18th century to the present. GDR:HI BS BM/BFA
331/531, England to the 18th Century. 3 cr . English culture, society, and institutions, in the medieval and early modern eras. GDR:HU4 BS
332/532. Modern Britain. 3 cr. British culture, society, and institutions, in the 18th century to the present. GDR:HI BS BM/BFA
333/533. France: Enlightenment; Revolution; Napoleon. 3 cr. French culture, society, and institutions in the 17 th and 18th centuries, and Napoleon. GDR:HU4 BS
334/534: Modern France. 3 cr. French culture, society, and institutions in the 19th and 20th centuries. GDR:HI BS BM/BFA
335/535. History of Germany Since 1871. 3 cr. To be offered only in overseas programs.
336. Selected Topics in the History of Poland. 3 cr. To be offered only in the overseas program. Topics will be selected by the instructor of the overseas campus.
337/537(NW). Russian History and Civilization. 3 cr. Tenth to 18th centuries. GDR: HI BA; HU4 BS 338/538(NW). Russian History and Civilization. 3 cr. Nineteenth and 20th centuries. GDR:HI BA; HU4 BS 339/539. Eastern and Central Europe. 3 cr. To the Congress of Vienna.
340/540. Eastern and Central Europe. 3 cr. Nineteenth and 20 th centuries.
341. Problems in Russian Culture. 2 or $\mathbf{3}$ cr. Interpretive approach to Russian culture through the study of selected topics in the fine arts.
343/543(NW). Africa South of the Sahara. 3 cr. Chiefly 19th and 20th centuries. GDR:HU4 BS
$344 / 544(\mathrm{NW})$. The Mongols. 3 cr . Nomadic cultures, religions, societies; Chinggis Khan; Mongol Empire; impact on Eastern Europe, Middle East, Asia; 12th to 16th centuries. GDR:HU4 BS
345/545(NW). Chinese Civilization to 1644. 3 cr . Culture, religion, thought, institutions, technological achievements; feudalism; Confucianism; gentry society; Buddhism; foreign influences. GDR:HI BA; HU4 BS
346/546(NW). China Since 1644. 3 cr. Conflicts with the West; modernization; revolutions; transition to Communism; contemporary developments. GDR:HI BA; HU4 BS
$347 / 547$ (NW). Japanese Civilization to 1868.3 cr . Culture, religion, thought, institutions; Chinese influences; Buddhism; feudalism; unification, shogunal controls, national isolation. GDR:HU4 BS
348/548(NW). Japan Since 1868. 3 cr. Modernization; world-power status; imperialism, militarism, totalitarianism; postwar recovery, economic and technological supremacy.
GDR:HU4 BS
349/549(NW). Korean Civilization to 1800. 3 cr. Culture, religion, thought, institutions, technological achievements; pivotal role in East Asia; Buddhism; unification; invasions; Confucianism. GDR:HU4 BS
$350 / 550(N W)$. Korea Since 1800. 3 cr. End of isolation; power rivalries; Japanese annexation; independence, division, Korean War; postwar development. GDR:HU4 BS
351/551(NW). Vietnamese Civilization. 3 cr . Culture, religion, thought, institutions; invasions, colonialism,
cultural survival, independence struggles; earliest times to the present. GDR:HU4 BS
352/552(NW). Modern Mexican Civilization. 3 cr . Continuing quest for independence; impact of Mexico's three major revolutionary upheavals-political independence, liberal reform, and social revolution-on society, religion, the arts, and thought. GDR:HU4 BS
356/556. Early America, to 1763. 3 cr.
357/557. Revolutionary America, 1763-1815. 3 cr .
358/558. Era of the Civil War, 1815-1877. 3 cr.
359/559. Rise of Modern America, 1877-1939. 3 cr.
360/560. Recent America, Since 1939. 3 cr.
366/566. American Environmental History. 3 cr. The occupation and exploitation of a continent-mercantilism to industrialism, criticisms of the effects of material progress (19th century), conservation and preservation (20th century). GDR:HI BS BM/BFA
368/568. The American West. 3 cr . Westward expansion; Mississippi valley to the Pacific.
*369/569. The American South. 3 cr. Topics will be announced in the timetable.
*371/571. United States Economic History. 3 cr. Topics and area will be announced in the timetable.
*372/572. United States Constitutional History. 3 cr. Topics and area will be announced in the timetable.
373/573. The United States and the World: 20th Century. 3 cr . United States relations with the world since the 1890s. GDR:HI BS BM/BFA
377/577. American Society and Thought, to 1865. 2 or 3 cr. GDR:HI BA; HU4 BS
378/578. American Society and Thought, Since 1865. 2 or 3 cr . GDR:HI BA; HU4 BS
379/579. Afro-American History and Culture. 3 cr. Role and contribution of Afro-Americans to the culture and society of the United States. GDR:HU4 BS
382/582(NW). The North American Indian. 3 cr. Earliest times to the present. GDR:HU4 BS
383/583. American Labor History. 3 cr. American workers; colonial times to the present. GDR:HU4 BS
385/585. The American Woman. 3 cr. Social-intellectual history of the American woman; colonial period to the present. GDR:HU4 BS
387/587. American Reform Movements. 2 or 3 cr . Ideals and institutions of reform, including concern for human rights, accompanying the social and cultural criticism of the emerging industrial order from the early 19th century.
$389 / 589$. Wisconsin. 2 or 3 cr .1634 to the present.
*391. Contemporary Historical Problems. 1 or 2 or 3 cr .
Topics dealing in contemporary history, to be announced in the timetable.
*392. Topics in Christian Church History. 1 or 2 or 3 cr . Topics and particular focus will be announced in the timetable. GDR:HU4 BS
393. Genocide: Psycho-Historical Foundations. 3 cr . Analysis of the scientific/technological foundations of political totalitarianism. GDR:TCI BA BS
*394. Technology and Contemporary Issues. $1-3 \mathrm{cr}$. For technology and contemporary issues credit only. A specific subtitle will indicate the focus. GDR:TCI BA BS
399. Special Work. Upperclass students majoring or minoring in history may, by agreement with the chair, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week or its equivalent, devoted to a special project.
489. Great Historians and the Sense of History: Seminar. 2 or 3 cr . The great historians and their conceptions of history based on readings from their works. Seminar open to students with senior standing majoring or minoring in history, Open to other seniors with the consent of the chair.
490. Selected Historical Problems: Seminar. 2 or 3 cr. Seminar open to students with senior standing majoring or minoring in history. Open to other seniors with consent of the chair. The specific problem(s) to be treated will be announced in advance each semester.
*762. Readings and Problems in History 3 cr. Reading seminar focused on a specific historical period and/or topic. A subtitle will be added each time the course is offered.
780. Historical Method 3 cr . Securing and evaluating historical evidence, construction of historical papers based upon various kinds of source materials.
*782. Seminar in American History. 3 cr. The specific topic will be indicated each time the seminar is offered.
*784. Seminar in European History. 3 cr. The specific topic will be indicated each time the seminar is offered.
*786. Seminar in Non-Western History. 3 cr . The specific topic will be indicated each time the seminar is offered.
788. Seminar in North American Indians. 3 cr.
*790. Historical Issues Workshop. $1-6 \mathrm{cr}$. Reading, discussion, analysis workshop focused on a specific theme or issue. Designed for secondary school teachers. A subtitle will be added each time the workshop is offered.
796. Independent Study 3 cr. Planned study designed to enrich and supplement the student's preparation in the area of specialization; regularly scheduled conferences with a staff supervisor.
799. Thesis 2-6 cr.

For more course listings in history, see the Latent Course Listing at the end of this section.

## HOME ECONOMICS <br> (College of Professional Studies)

Diane Libby, Associate Dean of the School of Home Economics
Room 101, College of Professional Studies Building Phone: (715) 346-2830, -2831
Faculty: Buss, Fedje, Gingles, Hendel, Kemp, Libby, Malone, Sands, Wilson.
Child and Family Studies Minor
Consists of 22 interdisciplinary credits.

1. Human Development $261,362,367,466$.
2. Select 11 credits from the following courses with no more than 6 credits in any one group. (Be sure to meet prerequisites for these courses.)
a. Communicative Disorders 266.
b. Early Childhood Education 262, 460, Food and Nutrition 351; Human Development $166,360,468$, 486, 490.
c. Communication 211.
d. Psychology $240,255,301,315,320,360,465$.
e. Sociology $224,225,265,343,366,367,468$.

## Dietetics Major

1. General dietetics option:
a. Required courses, 32-43 credits: Human Development $100,261,166$ or 367 , Food and Nutrition 246, 253, 393 or Education 381, 455, 457, Food Service Management 342, 347, 448.
b. Required collateral courses, $47-55$ credits: Biology 101 or $160,285,333$; Business 380,384 or Psychology 345; Chemistry 105 and 106 (or 115 and 116), 220, 260, Economics 210, Mathematics 100 (unless exempt) and 355 (or Computer Science 101/102); Psychology 110; Sociology 101.

2. Community nutrition option:
a. Required courses, 33 credits: Human Development $100,261,166$ or 367; Food and Nutrition 246, 253, 393, 455, 456, 457, 459; Food Service Management 342, 347.
b. Required collateral courses, 54-58 credits: Biology 101 or $160,285,333$; Business 380; Chemistry 105 and 106 (or 115 and 116), 220, 260; Communication 330; Computer Science 101/102; Economics 210; Mathematics 100 (unless exempt), 355; Physical Education 312; Psychology 110; Sociology 101.
Fulfilling the degree requirements in the general dietetics program and completing an American Dietetic Association accredited internship, three-year preplanned work experience, or appropriate master's degree plus a minimum of six months approved clinical experience will satisfy eligibility requirements for writing the registration examination, and/or for membership in the American Dietetic Association.

## Early Childhood Education Major

Consists of 39-40 credits.

1. Required courses, 39-41 credits: Human Development 100,166 or $367,261,360,362,466,468,486$; FashionInterior Design 101 or Art 101; Early Childhood Education 262, 364, 368, 460, 462; Food and Nutrition 351.
2. Required for teacher certification, 33-36 credits: Education 100, 301, 308, 351, 381, 398; Sociology 305 (or alternative); Physical Education 231; Music 149 or 159 or demonstrated proficiency; Instructional Resources 331.
3. Required collateral courses, $18-22$ credits: Communicative Disorders 266; English 274; Physical Education 252 or evidence of completion of standard first aid course; Psychology 110*; Sociology 101*; English or American literature ( 3 cr )*; physical science course ( $3-5 \mathrm{cr}$ )*. (*May be used toward fulfillment of general degree requirements.)

## Food Service Management Major

1. Required courses, 36 credits: Human Development 100 , 367; Fashion-Interior Design 101; Food and Nutrition 106 or 246, 253; Food Service Management 342, 347, 397, 447, 448, 449.
2. Required collateral courses, 24 credits: Accounting 210, 211; Economics 210, 211; Business 330, 340, 380, 384; Chemistry 101, or 105 and 106; Biology 101, 333; Computer Science 101/102.

## Food Service Management Minor

Consists of 27 credits.

1. Required courses: Food and Nutrition 106 or 246,253 ; Food Service Management 342, 347, 448; 3 credits from Food Service Management 343, 397, 447, 449, or Food and Nutrition 450.
2. Accounting 210; Business 384 or Psychology 345.

## Home Economics Minor

Consists of 27-28 credits.

1. Human Development $100,261,166$ or 367, 372; Fashion-Interior Design 101, 211, 302; Food and Nutrition 106.
2. Five or 6 credits in electives from Fashion-Interior Design or Human Development and Nutritional Sciences.

## Home Economics Education Major

1. Teacher certification option:
a. Required courses, 42 credits: Human Development 100, 166, 261, 362, 367, 372, 381, 486; FashionInterior Design 101, 103, 211, 233, 313; Food and Nutrition 106, 253.
b. Courses required for teacher certification, 45-46 credits: Home Economics Education 290, 390, 391, 392, 394; Education 100, 351, 380, 381, 386, and 16 credits of 398; human relations requirement, Sociology 305 or alternate; History 212, and electives selected from courses approved for human relations. requirement; admission to the Professional Education Program.
c. Required collateral courses, 9 credits: Economics 100 or 210; Psychology 110; Sociology 101.
d. General degree requirements to bring the total to 124-132 credits, plus 4 credits required in physical education (total 128-136 credits).
2. Noncertification option:
a. Same as 1.a. above, with addition of 8 credits of Human Development 397 (field work); total 50 credits.
b. Home Economics Education, 10 credits: 290, 390, 391, 392, 394.
c. Required collateral courses, 9 credits: Economics 100 or 210; Psychology 110; Sociology 101.
d. Controlled electives, 6 credits from the following: Education 351, 361, 381, 383; Instructional Resources 331.
e. Area of emphasis, $12-15$ credits, from an approved area such as political science, computer science, communication, sociology or anthropology, economics, psychology, HPERA, business.
Total Credits: $120-130$ credits plus 4 credits in required physical education (total 124-134 credits).

## Nutrition Minor

Consists of 24 credits.

1. Biology 101 or 160; Food and Nutrition 106, 253 or 351 or 353, 357, 393, 456.
2. Five credits of electives from: Human Development 261, 367; Food and Nutrition 458, 459; Home Economics Education 390, 392; Psychology 480; Sociology 315.

## Courses in Early Childhood Education

## 160. Special Topics in Child Development Associate

 Competencies. 1 cr . Twelve 1 -credit modules designed to meet the training requirements for the Child Development Associate Credential. A subtitle will be added each time the course is offered. May be repeated for credit under different subtitles. Credits cannot be earned toward requirements for major in early childhood education. Pass/Fail.262. Programs for Children and Families. 3 cr. Historical analysis of the development of programs for children and families; roles played by individuals, agencies, and government; current program models and techniques for program evaluation. Prereq: 261 or Psychology 260.
263. Cognitive Development of Young Children. 4 cr . Introduction to current theories of cognitive development as applied to the selection and presentation of experiences for young children; development of concepts in social studies, science, mathematics, and language arts curricula. Three hrs lec, two hrs practicum per wk. Prereq: Human Development 261 or cons instr.
264. Creative Development of Young Children. 3 cr.

Developmental theories of creativity in children, ages birth through 6; application of these concepts to the selection
and presentation of curriculum experiences. Two hrs lec, two hrs practicum per wk. Prereq: 364 or cons instr.
460. Home, School, Community Agencies. 3 cr .

Theoretical and philosophical analysis of processes involved in establishing positive relationships among home, school, and agency personnel. Prereq: 364 or cons instr.
462. Administration of Programs for Children and

Families. 2 cr. Analysis of job responsibilities of administrators of programs for children and families; e.g., job selection, faculty development, role of regulatory agencies and use of resources. Prereq. 368 or cons instr.
464. Evaluation in Early Childhood Education. 2 cr. Use of diagnostic and screening tools for teaching in setting appropriate goals and designing experiences for young children. Prereq: 368 or cons instr.

## Courses in Food and Nutrition

106. Principles of Food Preparation. 3 cr. Introduction to basic physical and chemical properties of foods; interaction and reaction of foods in food preparation procedures; evaluation of prepared products. Two hrs lec, three hrs lab per wk.
107. Contemporary Nutrition. 1 cr. Nutrition principles as applied to contemporary problems in food choices and health. One two-hr lec-disc per wk. GDR:PE/HE
108. Food Science. 3 cr. Food composition, chemical and physical interactions and treatment in preparation. Two hrs lec, three hrs lab per wk. Prereq; Chemistry 220.
109. Nutrition. 3 cr. Dietary standards at different stages in the life cycle; nutrient requirements and interrelationships, digestion and metabolism of foods. Prereq: So st.
110. Elementary Nutrition. 3 cr. The food needs of the individual and the foods which supply those needs, with special emphasis on the food needs of preschool and elementary age children.
111. Adolescent and Sports Nutrition. 3 cr. The food needs of the individual and the foods which supply those needs, with special emphasis on the food needs of adolescents and athletes.
112. Food and People. 3 cr. Role of food and nutrition affecting human habits and beliefs; cultural,
sociopsychological, and economic aspects. Prereq. Soc 101, or Anthro 101, or Psych 110, or cons instr.
391/591. Study Tour. $1-6 \mathrm{cr}$. Study tours to appropriate industries, museums, or facilities for students in various curricular areas in home economics. A subtitle will be added to describe the area each time the course is offered.
113. Educational Techniques in Dietetics. 2 cr. Concepts of educational planning, resources, methods, and techniques for teaching in dietetics; helping skills, including
interviewing techniques, Prereq: 253 or cons instr.
114. Field Experience. 3 or 4 cr. A supervised program at a cooperating business site. One hr seminar per wk for one cr, plus a minimum of 40 hrs arranged at the business site for each additional cr. May be repeated for a total of 9 cr . Prereq, Cons instr.
115. Field Work. $1-8$ cr. A supervised training work program in a cooperating off-campus establishment; work experience and supervision followed by an evaluation of individual progress.
116. Special Work. Upperclass students majoring in food and nutrition, may by agreemeent with the associate dean of the School of Home Economics, arrange for special out-
of-class work for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project.
444/644. Principles of Microwave Cookery. 1 cr. Basic principles and current research in microwave heating in the preparation and serving of food.
445/645. Food Preservation. 1 cr. Basic principles and current research applied to food preserved in the home.
446/646. Experimental Foods. 3 cr. Application of scientific principles and experimental procedures in food preparation. One hr lec, four hrs lab per wk. Prereq: 106 or 246 ; Chemistry 101 or 105 or 115 ; Biology 333; or cons instr.
450/650. Social and Cultural Aspects of Food. 3 cr, Foods and food customs of various regional, national, and ethnic groups. Two hrs lec, three hrs lab per wk.
455/655. Diet Therapy. 3 cr. Application of nutrition principles in the study of of the dietary treatment of certain conditions and diseases. Two hrs lec, two hrs lab per wk. Prereq: 106 or 246,253 ; Chemistry 360.
456/656. Community Nutrition. 3 cr. Application of nutrition concepts in the public health setting; disease prevention and health promotion; analysis of related programs and legislation with nutrition components; Program planning strategies. Two hrs lec, two hrs lab per wk. Prereq: 253.
457/657, Advanced Nutrition. 4 cr. Human nutritíon assessment and requirements throughout the life cycle, nutrient interrelationships affecting absorption and metabolism; composition of foods pertaining to human needs. Three hrs lec, two hrs lab per wk. Prereq: 253; Chemistry 260; Biology 285; or cons instr.
458/658. Geriatric Nutrition. 3 cr. Nutritional problems of older individuals; changes in digestion, absorption, and utilization of food; nutritional requirements, dietary intakes, and effect of nutrition on the rate of biological aging; nutritional programs for the elderly. Prereq, 253 or 351 or cons instr.
117. Practicum in Community Dietetics. 3 cr. Supervised experience in cooperating health related programs; health hazard appraisal, physical fitness testing, marketing and communication of nutrition information. Prereq: 393 or Education 381; 457; Physical Education 312; Communication 330.
490/690. Workshop. $1-4$ cr. A subtitle will be added to describe the area considered each time the course is offered.
118. Recent Advances in Food. 3 cr. Developments in food and food science; legislation concerning food quality.
119. Seminar in Food and Nutrition. 3 cr. Critical review of current research data.
120. Recent Advances in Nutrition. 3 cr. Lectures, reports, and demonstrations.
121. Vitamins and Minerals. 3 cr. Role of vitamins and minerals in human nutrition; research, and analysis of research. Prereq: 457, Biology 285 or cons instr.
122. Maternal and Child Nutrition. 3 cr. Research basis for recommended nutrient intakes during pregnancy, lactation, infancy, and the preschool years; development of feeding behavior; nutritional assessment; prospective nutrition; problems requiring special nutritional counseling. Prereq: 253 or cons instr.
123. Readings. $1-3 \mathrm{cr}$. Independent reading and review of current literature; written reports. Prereq: Cons instr.
124. Independent Study. $1-3 \mathrm{cr}$. Planned study designed to enrich and supplement the student's preparation in the area of specialization.
125. Research. 3 cr. Definition of problems and issues: critical examination of the research literature; planning of experimental investigation.
126. Thesis. 2-6 cr. Research project dealing with a specific problem in an academic area and culminating in a thesis.

## Courses in Food Service Management

342. Menu Management 4 cr . Application of food service system management stressing integration of purchasing and inventory, menu planning, recipe standardization and merchandising, introduction to computer usage for food service. Two hrs lec, four hrs lab per week. Prereq: 106 or 246; 253.
343/543. School Food Service. 2 cr. History and philosophy of school food service; legislation, trends, and educational roles; principles of organization and management of school food programs. Prereq: 106, 246, or cons instr.
347/547. Food Management Systems. 4 cr. Principles, concepts, and technical operations of food service systems within organizational structures; facility design. Prereq: 106 or 246 or cons instr.
391/591. Study Tour. 1-6 cr. Study tours to appropriate industries, museums, or facilities for students in various curricular areas in food service management. A subtitle will be added to describe the area each time the course is offered.
343. Field Experience. 3 or 4 cr . A supervised program at a cooperating business site. One hr seminar per wk for 1 cr, plus a minimum of 40 hrs arranged at the business site for each additional cr. May be repeated for a total of 9 cr . Prereq: Cons instr.
344. Field Work. $1-8 \mathrm{cr}$. A supervised training work program in a cooperating off-campus establishment; work experience and supervision followed by an evaluation of individual progress.
345. Special Work. Upperclass students majoring in food service management, may by agreemeent with the associate dean of the School of Home Economics, arrange for special out-of-class work for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project.
346. Beverage Management. 2 cr. Beverage operational problems, equipment needs, and management control. Prereq: 342, 347.
448/648. Food Service Óperational Management. 4 cr. Concepts and applications for menu and recipe-costing, inventory control, production simplification, evaluation, scheduling, sanitation safety, and merchandising in laboratory cafetria. One hr lec , one hr disc, six hrs lab per - wk. Prereq: 342, 347 or con reg.

449/649. Food Service Marketing. 3 cr. Advanced management techniques for handling cost control and developing marketing strategies in food service operations. Prereq: 448; Business 330.
451/651. Recent Advances in Food Systems Management. 3 cr. Recent developments, research, and legislation in the field of food systems management, reflecting educational, health, and business aspects of food systems. Prereq: 106
or 246,253 , or cons instr.
490/690. Workshop. $1-4 \mathrm{cr}$. A subtitle will be added to describe the area considered each time the course is offered.

## Courses in Human Development

100. Home Economics in Contemporary Society. 1 cr . Introduction to history and development of the home economics profession; investigation of related careers and the meaning of professional development.
101. Family Relations and Individual Development. 3 cr. Influence of family on individual development and interpersonal relationships; personal decision-making processes as applied to issues of family living: Prereq: Sociology 101 or con reg.
102. Child Growth and Development. 3 cr . Concepts and current research findings applied to the study of growth and development of normal children, from conception through adolescence within the context of the family. Prereq: Psychology 110. GDR:SS2
360/560. Infant and Toddler Development. 3 cr. Human development through $21 / 2$ years; implications for parents and early childhood education programs; observations.
362/562. Recent Advances in Child Development. 3 cr. Research, theories, programs, and techniques in the field of child development; application to programs for young children and their families.
103. Family Structure and Interaction. 3 cr . Family functions; variations in family organization and relationships; emphasis on applications of principles to decision-making by families in different stages of the life cycle. Prereq: Sociology 101 and Psychology 110, or cons. instr. GDR:SS2 \& PE/HE
372/572. Consumer Economics. 3 cr. Consumer, business, and government interactions in the economic environment; consumer choice and decision-making relevant to resource allocation and purchases in the market. Prereq: Economics 100 or 210 . Credit may not be earned in both Home Economics 372 and Economics 372. GDR:SS2
381/581. Technology and Energy Management. 2 or 3 cr. Interrelationship between family and technological environment; household management and utilization of technology and energy. Students registered for 3 credits will complete a project, family energy conservation. GDR:TCI BA BS
391/591. Study Tour. 1-6 cr. Study tours to appropriate industries, museums, or facilities for students in various curricular areas in human development. A subtitle will be added to describe the area each time the course is offered.
104. Field Experience, 3 or 4 cr. A supervised program at a cooperating business site. One hr seminar per wk for 1 cr , plus a minimum of 40 hrs arranged at the business site for each additional cr. May be repeated for a total of 9 cr . Prereq: Cons instr.
105. Field Work. $1-8 \mathrm{cr}$. A supervised training work program in a cooperating off-campus establishment; work experience and supervision followed by an evaluation of individual progress.
106. Special Work. Upperclass students majoring in human development areas, may by agreement with the associate dean of the School of Home Economics, arrange for special out-of-class work for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project.
107. Parent-Child Relations. 2 cr. Research and theories describing the processes by which parents and children affect each other as individuals and as a family system. Prereq: 166 or 367 or cons instr.
108. Issues in Human Development. 1 or 2 cr . Identification and examination of issues in child and family development; application of developmental theory and current research to understanding issues. Students enrolled for 2 credits will participate in a practicum. Prereq: Sr st and major in early childhood education; or cons instr.
109. Family Resource Management. 2 or 3 cr. Introduction to and application of concepts and processes relevant to family resource management from a system's perspective. Students enrolled for 3 credits will analyze family resource managerial problems. Prereq: $372 / 572$.
490/690. Workshop. 1-4 cr. A subtitle will be added to describe the area considered each time the course is offered.
110. Trends. 3 cr. New developments in the field of human development; implications in research for individual and family needs.
111. Workshop. 3 cr. A subtitle will be added each time the course is offered. May be repeated for credit under different subtitles.
112. Special Topics. 1-3 cr. One or more topics selected from current literature in the field of human development. A subtitle will be added to describe the emphasis considered each time the course is offered. May be repeated for credit under different subtitles.
113. Contemporary Problems in Human Development. 1-3 cr. Current research and theory applied to practical problems affecting children and families. May be offered in 1 credit modules with various subtitles.
114. Issues in Family Living. 2 or 3 cr. Investigation of current literature to determine issues affecting the nature and variability of the family.
115. Family Crises. 3 cr. Impact of crisis on family systems and individual members; support, referral techniques. Prereq: 367 or Sociology $468 / 686$ or equiv.
116. Seminar in Human Development and Family Relationships. 3 cr. Critical review of current reseatch data.
117. Current Problems in Family Economics. 2 or 3 cr. The family role in the changing economy; providing for family financial security; individual problems.

## 779. Seminar in Home Management and Family

Economics. 3 cr. Critical review of current research data.
794. Readings. $1-3 \mathrm{cr}$. Independent reading and review of current literature; written reports. Prereq; Cons instr.
796. Independent Study. 1-3 cr. Planned study designed to enrich and supplement the student's preparation in the area of specialization.
798. Research. 3 cr. Definition of problems and issues: critical examination of the research literature; planning of experimental investigation.
799. Thesis. 2-6 cr. Research project dealing with a specific problem in an academic area and culminating in a thesis.

## Courses in Home Economics Education

The Master of Science Degree - Home Economics Education is described in the section of the catalog on The Graduate School.
290. Directed Study: Observation and Participation. 1 cr. Individually planned to help the student better understand the role of the home economics classroom teacher; learner characteristics, and instructional materials. Field experience will include integration with disadvantaged and handicapped learners. One hr class or two hrs observation/participation every other wk.
381/581. Course Construction for Vocational Education. 2 cr. Curriculum development for post-secondary school programs, development of a course of study, instructional package, and/or unit of instruction.
382/582. Techniques for Teaching Vocational Education. 2 cr. Techniques and materials for instructional planning and teaching post-secondary vocational education courses.
383/583. Evaluation in Vocational Education. 2 cr. Techniques in the analysis of post-secondary education programs; interpretation of evaluation data. Prereq: Cons instr.
385/585. Introduction to Vocational Guidance. 2 cr. Occupational opportunities and statutory requirements in vocational and technical education programs.
390/590. Adult Education. 2 or 3 cr. Philosophy, history, techniques, and experiences in teaching adults.
391. Curriculum for Home Economics. 3 cr. Philosophy, curriculum, and evaluative materials for the home economics program K-12.
392. Techniques for Teaching Home Economics. 2 cr . Techniques, materials, and administration for home economics programs K-12.
394/594. Principles of Vocational and Technical Education.
2 cr. Philosophy, organization, and administration of vocational and technical education; emphasis on programs in Wisconsin.
396/596. Cooperative Occupational Education Programs. 2 cr. Philosophy, organization, and teaching techniques for cooperative vocational programs. Prereq. Admission to the professional education program.
790. Workshop in Home Economics Education. $1-4$ cr. A subtitle will be added to describe the area considered each time the course is offered. May be repeated for credit under different subtitles.
791. Curriculum in Home Economics. 3 cr. Curriculum trends, evaluation of home economics programs, principles of curriculum structuring and development of guides for teaching home economics.
792. Perspectives in Home Economics. 2 or 3 cr. Critical analysis of recent developments in home economics education, trends in curriculum development, techniques, and materials.
793. Evaluation of Home Economics Programs. 3 cr. Techniques in the analysis of occupational and homemaking programs.

## HONORS PROGRAM and HONORS COURSES

Arthur Herman, Coordinator Room 412, Collins Classroom Center Phone: (715) 346-3804
The University Honors Program is open to all interested and qualified students. It allows the superior student an opportunity for intellectual and academic achievement
which normally is not available in traditional classes. In order to graduate as a university honors graduate, you are required to complete a minimum of 15 credits of academic work in specially designed courses with 3 of those credits taken in the Honors Colloquium in your senior year. These honors courses will fulfill part of the general degree requirements.
If you meet any of the following criteria, you will be eligible for the honors program:
Entering Freshmen: (1) high school class rank in 90th percentile or above; (2) ACT or other standardized test scores with a composite score in the 90th percentile or above; (3) professional recommendation from a high school teacher or counselor; or (4) special invitation from the University Honors Committee.
Continuing Students: (1) an overall grade point average of 3.50 or above; (2) recommendation of a faculty member; or (3) appeal to the University Honors Committee for admission to the program.
To remain in the honors program you must maintain a minimum grade point average of 3.50 . You may withdraw from the program at any time without losing credit for the honors work successfully completed.
Why Participate in Honors? Benefits that you may expect from participation in the honors program include: (1) the stimulation of close intellectual association with other talented students and faculty in a variety of academic settings in addition to the traditional classroom; (2) the personal satisfaction of meeting the challenge of honors work and of outstanding achievement; (3) the notation on your university record, diploma and transcript as a University Honors graduate, adding to your credentials and appealing to prospective employers or graduate schools; (4) membership in a great student organization, the University Honors Society.
The teaching faculty in the University Honors Program is drawn entirely from the honors faculty (winners of the university's Excellence in Teaching Award) and winners of academic departments' Excellence in Teaching Awards.

## Courses in Honors

100. The Ancient Greek Experience. 3 cr . A course dealing with the philosophy, literature, history, and art of Hellenic Greece, the "Golden Age of the Western World."
GDR:HU1-4
101. The Ancient Asian Experience, 3 cr. A course dealing with the philosophy, religion, literature, and art of ancient India, China, and Japan. May be applied toward the humanities requirement for the Bachelor of Science degree. GDR:HU1-4
102. Interdisciplinary Independent Study. $1-3 \mathrm{cr}$. Independent study of a problem, theme, individual or period of special interest to the student may be arranged with two or more instructors from two or more academic departments from one or more colleges in the university with the permission of the chairs involved. May be repeated for a total of no more than 3 credits.
103. Interdisciplinary Astronomy, Mathematics, and Philosophy. 3 cr . Ideas and topics selected to trace the historical interdependence of astronomy, mathematics, and philosophy; examples from the classical Greek period, the Renaissance, and the twentieth century, emphasizing the threads which connect these areas.
104. Interdisciplinary Independent Study. 1-3 cr. (See 199 above.)
105. Black America - A Seminar in Historical and Cultural Perspectives. 3 cr . An interdisciplinary seminar dealing with the history and cultural development of AfroAmericans.
106. The American Political Scene, 3 cr . A critical examination of American politics and government emphasizing the relationship of the political system to its social, economic, and cultural environment. GDR:SSI\&2
107. Great Books. 3 cr . A critical examination of works of literature selected from among the world's great books. (For example, Plato, Republic; Augustine, City of God; Dante, Divine Comedy; Shakespeare, Hamlet, King Lear; Darwin, Origin of Species; Freud, Civilization and Its Discontents; etc.)
108. Great Men and Women. 3 cr . A critical examination of the life and work of a single author from the world of science, literature, or the arts. (For example, Plato, Galileo, Newton, Shakespeare, Bohr, Planck, Vincent Van Gogh, Harriet Taylor, Beatrice Webb, etc.)
109. Great Problems. 3 cr. A critical examination of a significant intellectual problem and the literature that bears upon it. (For example, the problem of evil; the existence of God; utopias; the nature of the real, the true, the good and the beautiful; the search for the atom; the origin of life, man, or the universe, etc.)
110. Community Environmental Issues Investigations. 3 cr . A review of current regional, national, and global environmental issues, together with an examination of the means for individually investigating and resolving those issues. (Credit may not be earned in both Honors 375 and Natural Resources 478.) GDR.TCI BA BS
111. Interdiscipinary Independent Study, 1-3 cr. (See 199 above.)
112. Colloquium. 3 cr . Topics to be arranged. Open only to, and required of, seniors in the Honors Program.

## HUMAN DEVELOPMENT

See Home Economics.

## INDIVIDUALLY PLANNED MAJOR (IPM)

Coordinators:
Ronald Lokken
Room B207, Science Building
Phone: 346-2311
Neil Lewis
Room 408, College of Professional Studies Building Phone: 346-3617
The individually planned major is intended to respond to the limited number of students whose educational objectives cannot be adequately realized through an existing academic program, but which may be achieved through unique combinations of existing offerings. It is intended to provide an opportunity for a student-designed program which is coherent and challenging. It requires early planning to ensure the availability and the integration of the courses which will constitute the major. It is not intended to permit students to package courses which have already been completed. The major must be approved before the end of the sophomore year.

Requirements:

1. You meet the requirements for the bachelor's degree in the college which offers the greatest number of credits within the major.
2. At least 40 credits within the degree must be in courses numbered 300 or above.
3. A minimum grade point average of 2.50 is required for entrance into the program.
4. A minimum grade point average of 3.00 is required in the major to graduate with the designated IPM.
You must decide to enter upon an individually planned major no later than the second semester of your sophomore year, or upon the completion of no more than 64 credits, excluding required physical education.
The major consists of a minimum of 36 approved credits taken from no fewer than two curricular areas, with a minimum of 9 credits in each. At least 20 credits in the major must be in courses numbered 300 or above.
You develop a proposal for the major in consultation with advisers from the departments in which the work is to be done. The proposal includes a statement of the objectives of the program, its title, and a list of specific courses.
You may obtain full details from the IPM coordinators.

## INSTITUTION MANAGEMENT

See Home Economics-Food Service Management.

## INSTRUCTIONAL RESOURCES <br> (College of Professional Studies)

Larry L. Riggs, Coordinator
Room 338B, College of Professional Studies Building Phone: (715) 346-4436
Faculty: Gillesby, Riggs, Strupp, Merton Thompson, Van Dreser.
The instructional resources minor satisfies the state licensing requirements for the Initial Library-Media
Certification.

## Instructional Resources Minor

Consists of a minimum of 25 credits including:

1. Instructional Resources $211,222,223,321,325,331$, and 332; English 275 and 375.
2. Remaining credits selected from Instructional Resources $231,322,361,362,363,396,399$.
3. To satisfy School of Education and state library-media certification requirements, you must have at least 2 credits of Instructional Resources 395 which is often taken at the same time as student teaching (Education 398).

## Notes:

The instructional resources minor fulfills the requirements which qualify you for the Initial Library-Media
Certification.
The sequence of Instructional Resources 222, 223, and 321 meets the standard requirements for entrance into graduate library science work. The instructional resources minor, upon graduation and a test completion, qualifies you for a Level 2 Public Library Certificate.

## Courses in Instructional Resources

110. Fundamentals of Architectural Drafting. 3 cr, A basic study and development of architectural drafting skills;
multiview drawings, perspectives, conventions, lettering, detailing, inking, and printmaking.
111. The Learning Resources Approach to Education. 1 cr . The development of the Learning Resources concept; purpose of Learning Resources in education processes, its relation to the curriculum, and its contribution to the improvement of instruction on the elementary and secondary levels; functional operation of the concept through a study of the representative operating systems. Prereq: So st.
112. Introduction to Reference. 2 or 3 cr. Materials of reference that are the basis of a learning resources reference collection and service, and practice in their use as a source of information and an aid to study and teaching. Prereq: So st.
113. Building Learning Resources Collections. 2 or 3 cr. Problems and values in building library collections with full concern for all materials that have relevance to the needs of elementary and secondary schools. Prereq: So st.
114. Basic Photography. 3 cr. Fundamentals of black and white photography including camera, types of film, filters, the use of the light meter and darkroom; practical experience in contact printing, developing, and enlarging. Prereq: So st.
115. General Cataloging and Classification. 4 cr. Theory and practice of cataloging and classification of book and nonbook materials, emphasis on Dewey Decimal Classification and Sears Subject Headings, with an introduction to Library of Congress classification and subject headings. Prereq: 222 and 223, or cons instr.
322/522. Workshop in Learning Resources. $1-3 \mathrm{cr}$. Problems of the Learning Resources Center in elementary and secondary schools. A subtitle will be added to describe the area each time the course is offered.
116. Organization and Supervision of the Learning Resources Center, 3 cr. The function of the Learning Resources Center in the school; responsibilities of the Center in carrying out the aims of the curricular and extracurricular programs, problems of administration, budget, physical facilities, and standards of service. Prereq: 211 or cons instr.
331/531. Audiovisual Media. 3 cr. Utilization of such media as pictures, slides, motion pictures, tapes, maps, radio, and television in the communication process; selfinstructional laboratory work in the operation of equipment and the production of materials.
117. Local Production of Media. 3 cr. Techniques in the planning and producation of such media as flannel boards, filmstrips, single concept films, motion pictures and tapes, and multimedia presentations. Prereq: 231 or 331, or cons instr.
118. Educational Trends in Visual Media, 3 cr. The application of newer technologies including microcomputers, video discs, holography, and videotext/teletext to visual communication in education. Emphasis is placed on the analysis of the social impact, the current applications, and the future of these educational technologies.
119. Introduction to Library Resources. 2 cr . Introduction to the systematic approach to subject materials, printed bibliography, references and materials of critical search, with practice in compilation of bibliographies using approved forms of descriptive bibliography and footnote usage. Prereq: So st with cons instr.
120. Advanced Photography: Scientific. 3 cr . Advanced work in adapting photography to scientific applications, including tools and techniques of macrophotography and photomicroscopy, photographing plants and animals in controlled situations and in their natural environment, and photographing landscapes. Students are expected to furnish their own cameras. Prereq: 231 or cons instr.
121. Advanced Photography: Color. 3 cr. Advanced work in the creative and practical applications of photographic materials that reproduce color, including exposing and printing color negatives and color slides plus the use of special products including color infrared and high contrast films. Students are expected to furnish their own cameras. Prereq: 231 or cons instr.
122. Advanced Photography: Black and White. 3 cr. Advanced work in black and white photography as a creative art form; including portrait and salon photography, message design, and special techniques in black and white such as toning and bas relief. Students are expected to furnish their own cameras. Prereq: 231 or cons instr.
123. Practicum. 2-5 cr. Practical field experience in the operation of learning resources functions under the supervision of cooperating instructional media personnel. Practicum credits may be earned as part of the requirements for Education 398 (Student Teaching) or by other arrangements approved by the chair of the Instructional Resources Department.
124. Field Experience. 2-5 cr. Practical experience in a public, academic or special library, in the operation of learning resource functions, under the supervision of cooperating media personnel. Intended for students without a major or certification program in the School of Education, and not seeking Department of Public Instruction certification as public school media persons. Prereq: Consent of I.R. program coordinator.
125. Special Work. Students minoring in Learning Resources may, with the approval of the coordinator of Instructional Resources, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project. A maximum of 2 credits for such work will be acceptable for the minor in Learning Resources.

## 711. Design and Utilization of Materials for Individualized

 Instruction. 3 cr . The application of the findings of research on learning and behavioral psychology to the design and utilization of materials and methods for individualized instruction. Each student will prepare, field test, and revise a short individualized learning sequence. Prereq: Psychology 375/575 or equiv.713. Instructional Design. 3 cr . The application of the principles of systems analysis and systems design in investigating instructional problems and their solutions; emphasis on the creative use of research data from learning psychology in solving instructional design problems.
714. Utilization of Television in the School. 3 cr. Techniques necessary for utilization of educational television programs in large group, small group, and individualized instruction; for the experienced teacher.
715. Independent Study. 1-3 cr. Planned study designed to enrich and supplement the student's preparation in the area of specialization; regularly scheduled conferences with an Instructional Resources faculty supervisor.

## INTERIOR DESIGN

See Fashion and Interior Design.

## INTERNATIONAL PROGRAMS

Helen Corneli, Director
Room 208, Main Building
Phone: (715) 346-2717
If you would like to study in Britain, Germany, Spain, Poland, the Republic of China, Australia, or Greece, you may do so through the semester abroad programs of UWStevens Point's International Programs Office. In each program you may earn 13 to 17 credits in UW-Stevens Point courses during a three-month travel/study tour. For full information about the many programs offered, write or visit the International Programs Office.

## JAZZ STUDIES

See Music.

## LAND USE PLANNING <br> See Natural Resources.

## LATENT COURSE LIST

See section of this catalog immediately following Courses of Instruction.

## LATIN AMERICAN STUDIES (College of Letters and Science)

Robert J. Knowlton, Coordinator
Room 424, College of Professional Studies Building Phone: (715) 346-2334.
Faculty: Assardo, Ackley, M. Bloom, Kapter, R. Knowlton, Morgan, Parry.
Latin American Studies Major
Consists of 34 credits:

1. A minimum of 24 credits selected in at least three fields from among the following Latin American content courses:
Anthropology 335.
Art 382.
Geography 301, 391 (with appropriate subtitle).
History 253, 254, 352.
Latin American Studies 100, 399, 423.
Spanish 331 (with appropriate subtitle), 353, 354, 471, 493.
2. Select the remaining credits from related, nonlanguage courses after consulting with the Latin American studies coordinator. Examples: Economics 362, 365, 367; Geography 368; History 373; Political Science 380; Sociology 260, 370.
3. In addition, you need four semesters of college Spanish beyond the first-year level which may include Spanish 331, 353, 354, 471, 493.

## Latin American Studies Minor

Consists of 24 credits:

1. Select at least $\mathbf{1 6}$ credits from content courses listed above.
2. Choose the remainder of the courses from related,
nonlanguage courses after consulting with the Latin American studies coordinator.
3. It is strongly recommended that you have 8 credits of Spanish beyond the first-year level.

## Courses in Latin American Studies

## 100. Introduction to Latin America. 3 cr. A

 multidisciplinary introduction to the history and culture of Latin America utilizing videotape lecture presentations, films, and slides, as well as live lectures and díscussions. GDR:HU4399. Special Work. Upperclass students majoring or minoring in Latin American studies may, by agreement with the Latin American studies coordinator, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project.
400. Latin American Development. 3 cr. An interdepartmental course in the development, modernization, and institutions of Latin America; analysis of factors influencing development. A subtitle will be added to the title to describe the focus each time the course is offered. Prereq: Six hours of work in Latin American studies content courses or consent of the Latin American studies coordinator.

## LEARNING DISABILITIES

See Education - Teacher Certification.

## LEARNING RESOURCES

101. Effective Use of the Learning Resources Center. 1 cr. (Pass-Fail only.) The services, personnel, and organization of the Learning Resources Center; the development of basic skills necessary for its use as an effective aid to study, research, and enjoyment.

Also see Instructional Resources.

## LECTURE-FORUM COURSE (College of Letters and Science)

English Department, Coordinator
Room 486, Collins Classroom Center
Phone: (715) 346-4757
101, 102, 301, 302. Lecture-Forum Course. Each 1 cr. Lectures and discussions by members of the faculty and by lecturers from outside the university. The purpose of the course is to stimulate interest in the problems of the world and to aid students in orienting themselves to that world. Each semester's offering will center on a general theme, which will be indicated by a subtitle to be added each time the course is offered. The course may be taken for two semesters for a total of two credits; two hours per week; no grade will be given except "Pass" or "Fail";
attendance is required for "Pass."

## MATHEMATICS and COMPUTING (College of Letters and Science)

William Wresch, Chair
Room D-245, Science Building
Phone: (715) 346-2120
Faculty: Ackley, Adler, Bilbrey, K. Brown, Cable, A. Carlson, S. Carlson, J. Carter, Jyotsna Chander, Conlon, Emerich, Gau, Goulet, Herder, Hille, Hutchinson, C. Johnson, John Johnson, Klingler, G. Kung, S. Kung, Liu, Mages, G. Miller, Messing, Morris, D. Olson, Rangel, 0. Rice, C. Riley, Schoenecker, Staal, M, Stern, Thoyre, Treuden, Weiler, Wresch.
(Courses, and the major and minor in computer information systems, are listed under that title, earlier in this catalog.)

## Mathematics Major

Consists of at least 37 credits:

1. Mathematics $120,121,222,213$. It is strongly recommended that you complete 213 before enrolling in 300-level courses.
2. At least one course from each of (a) and (b):
a. Analysis: Mathematics 323, 324, 327;
b. Algebra: Mathematics 330,331 .
3. At least one course from each of two areas:
a. Geometry and Topology: Mathematics 340, 342, 372;
b. Probability and Statistics: Mathematics 351,352 ;
c. Applications: Mathematics $310,320,322,357,360$.
4. Additional courses selected from Mathematics 305,310 , $315,320,322,323,324,327,330,331,335,340,342$, $351,352,357,360,372,390,395$, and 499 (if approved by the department chair).
5. Computer Information Systems 110 or 112.

To have a major in mathematics approved for graduation, you must have a minimum grade point average of 2.00 in the mathematics courses you select to satisfy the requirements of the major. In addition, you must achieve a grade of " $C$ " or better in at least 15 of the credits in required courses numbered 300 or above. These standards apply regardless of a declaration of academic bankruptcy. The department chair may allow exceptions on a conditional basis.

## Mathematics Major for Teacher Certification

Consists of at least 42 credits:

1. Mathematics $120,121,213,222,305,331,340,351$, 380, and Education 335.
2. At least one of Mathematics 323, 324.
3. Additional courses selected from Mathematies 310, 315 , $320,322,323,324,327,330,331,335,342,351,352$, $357,360,372,390,395$, and 499 (if approved by the department chair).
4. Three credits in computer information systems.

To have a major in mathematics for teacher certification approved for graduation, you must have a minimum grade point average of 2.75 in the mathematics courses you select to satisfy the requirements of the major, In addition, you must achieve a grade of " $C$ " or better in at least 15 credits in required courses numbered 300 or above. These standards apply regardless of a declaration of academic bankruptcy. The department chair may allow exceptions on a conditional basis.

## Mathematics Minor

Consists of 22 credits including Mathematics $120,121,222$,
and 213, and at least 6 credits in courses numbered 300 and above.

## Applied Mathematics Minor

Consists of at least 23 credits including Mathematics 120 , $121,351,352$, and completion of three courses from Mathematics 222, 305, 310, 315, 320, 357, and 360.

## Mathematics Minor for Teacher Certification

Consists of at least 30 credits:

1. Mathematics $120,121,213,331$ or $335,340,351$ or 355, and additional credits selected from Mathematics $222,305,323,331,335$, or 380 to total at least 24 credits.
2. Three credits of computer information systems.
3. Education 335.

## Notes:

1. A minimum grade point average of 2.75 is required for teacher certification.
2. Elementary education majors are required to take Mathematics 228, 238, Mathematics Education 228, 238 and Mathematics Education 345 (non-Center) or Mathematics Education 346 (Center).

## Master of Science in Teaching (Mathematics)

Is offered in cooperation with UW-Oshkosh. You can get more information from the department office.

## Mathematics Placement Test

The mathematics placement test is given to all new freshmen as you enter the university. The test covers the material found in the usual four-year high school mathematics program (two years of algebra, geometry, and precalculus) and the scoring varies according to the amount of mathematics you have taken. The test results, along with your high school record (mathematics courses and grades), are used to place you at the appropriate level of mathematics at UW-Stevens Point. At some of these levels you will be able to choose from several courses after examining their prerequisites. If you did not take the test at the time you entered the university, you may arrange for it at the department office.

## Courses in Mathematics

Also see listing under Mathematics Education.
050. Essentials of Beginning Algebra and Geometry I. 2 cr. Beginning algebra with emphasis on solutions and applications of linear equations and inequalities of one variable, and applications of informal geometry.
Recommended for students whose placement test scores indicate a need for practice in fundamental mathematical skills. Credits do not count toward a degree.
051. Essentials of Beginning Algebra and Geometry II. 2 cr . Beginning algebra with emphasis on solutions and applications of quadratic equations of one variable; applications of informal geometry and graphing of linear equations of two variables. Recommended for students whose placement test scores indicate a need for practice in fundamental mathematical skills. Credits do not count toward a degree. Prereq: 050 or suitable placement test

## score.

100. College Algebra. 2 cr . A beginning course in college algebra including functions, solutions and graphs of linear and quadratic equations, inequalities and systems of equations; logarithmic and exponential functions. Prereq: 051 or suitable placement test score. GDR: MATH
101. Pre-Calculus Algebra I. 2 cr. A functional approach
to algebra: topics include concepts, graphs, and properties of functions; inverse functions; algebraic and some transcendental functions. Prereq: 100 or a suitable placement test score. GDR:MATH BS BM/BFA
102. Trigonometry. 2 cr . Trigonometric functions, their basic properties and graphs; inverse trigonometric functions; identities; applications. Prereq: 100 or a suitable placement test score. GDR: MATH BS BM/BFA
103. Pre-Calculus Algebra II. 2 cr. Continuation of 102. Topics include techniques of graphing; conic sections; linear and nonlinear systems; arithmetic and geometric series; mathematical induction and the binomial theorem. Prereq: 102 or a suitable placement test score. GDR:MATH BS BM/BFA
104. Mathematics for Economics and Business Analysis. 2 cr. Applications to business and economics; matrices and determinants; linear programming; mathematics of finance. Intended primarily for students of business and economics. Prereq: 100 or a suitable placement test score. GDR: MATH BS BM/BFA
105. Differential Calculus. 2 cr . Techniques and applications of differential calculus in biology, business, economics, psychology, and sociology. Not open to majors or minors in mathematics. Math 116 and 120 may not both be taken for credit. Prereq: 100 or a suitable placement test score. GDR: MATH BS BM/BFA
106. Integral Calculus. Techniques and applications of integral calculus in biology, business, economics, psychology, and sociology. Not open to majors or minors in mathematics. Prereq: 116. GDR: MATH BS BM/BFA
107. Analytic Geometry and Calculus I. 4 cr. Analytic geometry of the plane; differentiation and integration of algebraic functions with some applications. Prereq: 106 and 108 or suitable placement test score.
108. Analytic Geometry and Calculus II. 4 cr . Analytic geometry of the plane continued; differentiation and integration of transcendental functions; integration techniques; infinite series; additional applications. Prereq: 120.
109. Introduction to Linear Algebra. 4 cr . A transitional course to prepare students for upper-level courses in mathematics; topics in the foundations of mathematics, including set theory, functions, finite induction, equivalence relations and partitions, order relations, countable and uncountable sets; introductory topics in linear algebra, including matrix algebra, Gauss-Jordan elimination, vector spaces, linear independence, determinants, orthogonality, linear transformations and their matrix representation, eigenvalues and eigenvectors, and applications; emphasis on reading and writing formal mathematical proofs. Prereq: 121.
110. Analytic Geometry and Calculus III. 4 cr . Introduction to solid analytic geometry; differentiation of functions of several variables; multiple integrals; parametric equations and vectors; applications. Prereq: 121.
111. Mathematics for Early Childhood Education. 4 cr. Basic concepts of sets, logics, classification, number systems, and informal geometry; emphasis on mathematical concepts which can be applied in teaching children; may be applied toward the mathematics requirement for a degree; credit may not be earned in both 227 and 228. Prereq: Prior acceptance into the ECE program or cons instr, and Mathematics 100 or a suitable placement score. GDR: MATH BS

## 228. Fundamental Mathematical Concepts for the

 Elementary School Teacher I. 4 cr. Basic concepts and properties of sets, number systems, and functions as they apply to the mathematics of the elementary school. Three hrs lec, two hrs lab per wk. Prereq: 100, or testout; and con reg in Mathematics Education 228. Not to be counted toward a major or minor in mathematics. GDR: MATH BS305. Discrete Mathematics, 3 cr. Graph theory: isomorphism, connectedness, Eulerian and Hamiltonian circuits, diagraphs, trees; combinatorics: counting principles, arrangements and selections, permutations and combinations, recurrence relations, inclusion/exclusion principle, Prereq, 120, or 115 and 116.
306. Network Models. 3 cr. Flows in networks and the max-flow min-cut theorem, maximal and optimal flows, transportation and dynamic flow networks, shortest and longest route problems, critical path problems, computer solutions. Prereq 305.
307. Linear Programming. 3 cr. Formulation of LP problems, convex sets, simplex method, pivoting and reduction, duality, postoptimization analysis, sensitivity analysis, parametric studies, applications, use of related computer software. Prereq: 121, or 115 and 116. 320/520. Differential Equations. 3 cr. An introductory course treating ordinary differential equations of the first and second order; linear equations with constant coefficients; solution in series; numerical approximations; system of ordinary equations, with certain applications. Prereq; 222.
322/522. Vector Analysis. 3 cr. Vector algebra; vector calculus; gradient, divergence, and curl; divergence theorem; Stokes' theorem; line and surface integrals; introduction to tensor analysis; applications. Prereq 222.
323/523. Foundations of Analysis. The elementary topological properties of the real line and the Euclidean plane; connectedness, compactness, continuous and uniformly continuous functions. Prereq. 213.
324/524. Complex Variables. 3 cr. Complex numbers, functions of a complex variable; power series, elementary functions; conformal and bilinear transformation; integral theorems; Taylor and Laurent expansions; theory of residues; applications. Prereq: 222 and 213 or cons instr.
327/527. Advanced Calculus. 3 cr. Advanced treatment of infinite series, partial derivatives, exact differentials, lines, surface and volume integrals, and generalized integrals. Prereq: 222 and 213 or cons instr.
330/530. Intermediate Linear Algebra. 3 cr. Canonical forms (congruence, equivalence, similarities); applications. Prereq: 213.
331/531. Abstract Algebra. 3 cr. Groups, rings, fields, number systems, Euclidean domains, and polynomials. Prereq. 213.
335/535. Number Theory. 3 cr. Primes, composites, and divisibility; congruences and residue classes; numbertheoretic functions; Diophantine equations. Prereq: 213 or cons instr.
308. Fundamental Mathematical Concepts for the

Elementary School Teacher II. 4 cr. Topics from measurement, probability, statistics, algebra, and geometry with emphasis on problem solving. Three hrs lec, two hrs lab per wk. Prereq: 228 and con reg in Mathematics Education 338. Not to be counted toward a major or minor in mathematics.

340/540. College Geometry. 3 cr. Foundations of geometry; survey of Euclidean geometry from various developmental approaches; introduction to non-Euclidean geometries. Prereq: 121 .
341/541. Modern Geometry. 3 cr. Historical and logical development of geometries; introduction to various geometries using synthetic and coordinate methods; classification of geometries, Prereq: 213.
342/542. Projective Geometry. 3 cr. Projective spaces; finite projective planes; the projective plane over the real numbers, special configurations, affine planes. Prereq: 213.
347/547. Geometry for Elementary and Junior High School Teachers. 3 cr . Metric and nonmetric properties of curves, surfaces, and solids; plane construction, models of surfaces and solids; measurement of length, area, and volume; coordinate geometry of the plane; finite geometry. Prereq. Cons instr. Credit may not be earned in both $347 / 547$, and 338.

351/551. Probability and Statistics 1. 3 cr. Probability from a set-theoretic viewpoint, probabilities in discrete sample spaces; random variables; properties of distributions. Prereq: 121.
352/552. Probability and Statistics II. 3 cr. Probability density functions; moments, Student $T$ and Chi-square distributions; correlation and regression; tests of hypotheses; applications. Prereq: 351.
355. Elementary Statistical Methods. 4 cr. Fundamental concepts and techniques which underlie applications to the various disciplines, including descriptive statistics; averages; dispersion, random sampling; binomial, normal, Student T, Chi-square, and F distributions, estimation and tests of hypothesis; linear regression and correlation; laboratory emphasis on sampling and applications. Not to be counted toward a major or minor in mathematics, or the major for teacher certification. Prereq: 100 or a suitable placement test score. GDR:MATH BS BM/BFA
357. Decision Analysis. 3 cr. Quantitative approaches to the solution of multicriteria decision problems with uncertainty and risk, Bayesian methods, utility theory. Prereq. 121 , or 115 and 116.
360/560. Numerical Analysis. 3 cr. Differences and interpolation; function approximation; solution of equation; linear systems and matrices; numerical solutions of ordinary differential equations; least square approximation; quadrature. Prereq 213 and 222 and Computer Information Systems 110 or 112 or 113 , or cons chair.
368. Contemporary Mathematics for the Elementary School Teacher. 3 cr. Selected topics in mathematics. Computer and calculator applications. Emphasis on problem solving. Prereq: 228 and 338, or cons instr. Not to be counted toward a major or minor in mathematics.
372/572. Topology. 3 cr. Topologies, topological spaces, relative topologies; separation axioms, connectedness; compactness, metrizability; continuity. Prereq: 213.
380. Seminar in the History of Mathematics. 2 cr. The historical development of selected mathematical ideas. Prereq, 213.
390/590. Special Topics in Mathematics. 1-3 cr. Topic and number of credits will be announced when the timetable is published each semester. Prereq: Cons chair.
395. Seminar. 1 cr. Selected readings in mathematical subjects will be presented and discussed by participating
faculty and students. May be repeated for a maximum of 3 credits under different topics. Prereq: Cons instr.
499. Special Work. Upperclass students majoring in mathematics may, by agreement with the department chair, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project. Normally no more than 3 credits may be counted toward the mathematics major.

## Courses in Mathematics Education

228. The Teaching of Elementary School Mathematics. 1 cr. Principles, goals, methods, and techniques of elementary school mathematics. Prereq: Con reg in Mathematics 228.
229. The Teaching of Elementary School Mathematics II. 1 cr. Principles, goals, methods, and techniques of elementary school mathematics. Prereq: Con reg in Mathematics 338.
230. The Teaching of Elementary School Mathematics III. 1 cr. Principles, goals, methods, and techniques of elementary school mathematics with emphasis on practicum. Prereq: Con reg in Mathematics 338. (Open only to students NOT planning participation in the Elementary Center for the Study of Teaching.)
231. The Teaching of Elementary School Mathematics III.

3 cr . Principles, goals, methods, and techniques of elementary school mathematics, field experience. Prereq: Mathematics 338 and con reg in the Elementary Education Center for the Study of Teaching.
375/575. A Laboratory Approach to Mathematics. 3 cr. The use of laboratory techniques for learning and teaching mathematics; planning, equipping, and maintaining a mathematics laboratory; designing instructional materials for the effective use of a mathematics laboratory. Intended for teachers with little previous training in use of a mathematics laboratory. Prereq: Cons instr.
$390 / 590$. Special Topics. $1-3 \mathrm{cr}$. Topic and number of credits will be announced when the timetable is published. Prereq: Cons chair.
399. Special Work. $1-3 \mathrm{cr}$. Upperclass students may arrange for special work for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted to a special project. Prereq: Cons chair.

## MEDICAL TECHNOLOGY <br> (College of Professional Studies)

D. Chitharanjan, Director

Room D-144, Science Building
Phone: (715) 346-2646
Faculty: Chitharanjan, Raab.

## Medical Technology Major

Consists of the academic and clinical program:

1. Academic Program: 109-111 credits (exclusive of required physical education) of on-campus study including the following:
a. The bachelor of science general degree requirements. (As a medical technology student you are required to complete 3 credits of physical education to correspond to the three years you are on campus. These credits must include 2 aerobic activity credits and 1 health enhancement credit.)
b. Medical Technology, 26 credits: 105, 205, 295, 305, $315,325,335,345,355,365,375,385$.
c. Chemistry, $25-27$ credits: 115 and 116 (By special permission of the director of medical technology, Chemistry 105 and 106 may be accepted in lieu of 115 and 116. Permission from the chemistry chair is required to enter Chemistry 325 and 328 .); 248, 325, 326, 328, 365, 369.
d. Biology, 16 credits: $160,210,285,333$.
e. Physics, 6 credits: $104,106$.
f. Mathematics, 4 credits: 355.
g. For acceptance and continued registration as a candidate for this degree, you must maintain a grade point average of 2.75 overall as well as in the sciences, including medical technology and mathematics. If you do not meet this standard, you may petition the director of medical technology for consideration.
h. Registration in summer session is required for the summers following the sophomore and junior years.
2. Clinical Practicum: Upon completion of the academic program you will serve a nine-month clinical practicum in a hospital medical technology program accredited by the Committee on Allied Health Education and Accreditation (CAHEA) in cooperation with the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). This university has affiliation agreements with the following medical technology programs to provide clinical practicum education for seniors. The director and the educational coordinators of the medical technology programs are given courtesy appointments as university adjunct faculty:
Berkshire Medical Center, Pittsfield, Maryland: William Beautyman, M.D., Linda Theriault, M.T.; St. Elizabeth's Hospital, Appleton: James Erchul, M.D., Robert Cihak, M.T.; St. Joseph's Hospital, Marshfield: C. N. Reyes, M.D., Virginia Narlock, M.T.; St. Michael's Hospital, Stevens Point: A. Milano M.D., Rodney Hoeth, M.S., M.T.; Swedish American Hospital, Rockford, Illinois: C. James Lafler, M.D., Lorinda Schiller, M.T.; Waukesha Memorial Hospital, Waukesha: Thor M. Thorgersen, M.D., Gerianne Asti, M.T.; Wausau Hospital Center, Wausau: Kathy Belgea, M.D., Sue Johnson, M.T.; West Allis Memorial Hospital: Jay Schamberg, M.D., Joyce Walsh, M.T.
A total of 34 credits are awarded for the clinical practicum. Before you are awarded your degree, the director of the medical technology program of the hospital must notify the director of medical technology that you have successfully completed the clinical practicum.
3. Meeting or exceeding the requirements for eligibility to apply for clinical practicum does not guarantee that you will be placed in a position. The University of Wisconsin-Stevens Point does not award practicums. The hospitals interview, screen, and ultimately select candidates for internship.

## Courses in Medical Technology

105. Introduction to Health Professions. 2 cr. Emergence of health care. Overview of health professions: options and expectations; guidelines, responsibilities, and curricula for various careers in the health sciences. Two hrs lec per wk.
106. Clinical Orientation. 1 cr . Hospital introduction to laboratory techniques. Open only to students majoring in medical technology. Pass-Fail ONLY. Prereq: So st.
107. Medical Terminology, 2 cr, Examination of bases of medical terms, prefixes, suffixes, roots, combined forms; terms that name the nine basic body systems and organs. Two hrs lec per wk.
108. Hematology. 3 cr. Basic concepts in hematology, immunohematology, coagulation, and urinalysis. Two hrs lec, three hrs lab per wk. Prereq: Biology 285.
109. Clinical Microbiology. 2 cr. Isolation and identification of human pathogenic microorganisms and the relationships of these organisms to diseases. Prereq: Biology 333.
110. Clinical Parasitology. 2 cr, Morphology, life history, diagnosis, and control of the common animal parasites affecting man. Prereq: Biology 160. Not open to students with credit or con reg in Biology 362.
111. Clinical Instrumentation. 3 cr. Basic concepts, operation, and troubleshooting techniques of automated instrumentation; introduction to quality control, statistics, clinical quantitative analysis, computerization, clinical chemistry, and laboratory safety. Two hrs lec, three hrs lab per wk. Prereq: Chemistry 248.
112. Special Topics. 2 cr. Survey of chemotherapy, antibacterial and antiviral agents, biochemical aspects of immunology, and the mechanism of drug action. Prereq: Biology 285, Chemistry 328.
113. Immunology. 2 cr. Basic concepts in immunology, serology, immunohematology; antigen/antibody and immunochemical reactions; measurement of immune response. Prereq: Biology 285,
114. Body Fluid Analysis. 1 cr. Theoretical and practical aspects of chemical and microscopic analysis of urine, cerebrospinal fluid, synovial fluid, and serous fluid. One hr lec per wk. Independent lab. Prereq: Biology 285.
115. Quality Assurance and Laboratory Management, 3 cr. Topics addressed will include accreditation and licensing, policy and procedure writing, method and instrument evaluation, cost analysis, and quality control programs for the clinical laboratory. In addition, leadership techniques and styles of management will be explored with emphasis on time and personnel managenent, problem-solving, and marketing. Three hrs lec per wk. Prereq. Jr st or cons instr.
116. Professional Development. 3 cr. Study of professional roles, responsibilities, contemporary problems and conflicts, and education within the professional setting. Three hrs lec per wk. Prereq Ir st
117. Ramifications of Emerging Biotechnology in Health Care: Concerns and Conflicts. 3 er. Success and limitation of technological advancements in health care: political, social, economic, ethical issues as they relate to health, disease, and technology, contemporary health concerns and conflicts. Three hrs lec per wk. Prereq. Jr st. GDR:TCI BA BS

## Clinical Internship

The following courses describe the clinical internship year ( 34 credits). These courses are taught only at the hospital,
405. Clinical Chemistry 1. 5 cr. Fundamental concepts of clinical biochemistry, measurement of specific substances in body fluids and feces by chemical analytical techniques, and correlation of results with disease states; principles of instrumentation, quality control.
406. Clinical Chemistry II. 4 cr. Continuation of 405 ; drug screening and identification.
415. Clinical Hematology 1. 3 cr. Collection of blood specimens; fundamentals of blood and bone marrow composition, function, and cell morphology, normal morphology and pathologic conditions of cellular elements, laboratory techniques.
416. Clinical Hematology 11. 4 cr . Continuation of 415 ; theories of blood coagulation and hemostasis, diagnosis of bleeding disorders with laboratory testing and correlation of these results with clinical history.
425. Clinical Microbiology 1. 4 cr. Techniques and theories of medical diagnostic bacteriology; special emphasis on cultivation, identification, isolation, antimicrobial sensitivity of pathogenic bacteria; principles of sterilization, asepsis, and infection control.
426. Clinical Microbiology 11. 4 cr. Continuation of 425 ; mycology, fungal contaminants, laboratory techniques; parasitology: division of medical protozoology, helminthology, and arthropodology, virology and Rickettsiae, characteristics of organisms, laboratory technique for isolation and identification.
435. Clinical Immunology-Serology. 2 cr. Antigens and antibodies; stimulation, production, and their interaction; immunodeficiency diseases; tumor and organ transplants; performance of qualitative and quantitative serological procedures.
445. Immunohematology: Blood Banking I. 2 cr. Application of the principles of immunology and genetics to grouping and crossmatching of blood and its components for transfusion, donor collection and processing, titration of selected antibodies and their relation to transfusion reactions and the use of transfusion therapy in disease conditions.
446. Immunohematology: Blood Banking II. 3 cr . Continuation of 445 .
455. Clinical Urinalysis. 2 cr. Theory of renal function in health and disease; renal function tests including chemical and microscopic examination of urine.
465. Clinical Nuclear Medicine. 1 cr. Basic concepts and Instrumentation of nuclear physics; application of radioactive substances to the identification of diseases; study of isotopes of clinical importance and the methodology for their use.

## MICROELECTRONICS AND MICROCOMPUTER SYSTEMS (College of Letters and Science)

Allen G. Taylor, Coordinator
Room B-111, Physics Office, Science Bullding
Phone: (715) 346-2791

## Microelectronics and Microcomputer Systems Minor

The interdepartmental minor consists of 23 credits: Computer Information Systems 110 or $112,230,305$; Physics 301, 302, 390 and 391.

The Department of Physics and Astronomy administers the minor.

## MILITARY SCIENCE <br> (College of Professional Studies)

Lieutenant Colonel D. R. Johnson, Chair

Room 204, Student Services Center
Phone: (715) 346-3821
Faculty: Cox, Estaville, Jimenez, D. Johnson, Leachman, Lloyd, S. Miller, Shrives, Woehr.
The Department of Military Science offers 23 credits in courses which may qualify you for a commission as a second lieutenant in the Regular Army, U.S. Army Reserve, and Army National Guard. The Reserve Officers' Training Corps (ROTC) Program is an elective program which enhances your education by providing unique management and leadership instruction coupled with practical experience. The program is designed to develop leadership and management skills basic to success as a U.S. Army leader or in a civilian career. ROTC provides you with a valuable opportunity to build for the future by enabling you to earn a degree and an officer commission at the same time.
The U.S. Army ROTC program is based on a four-year curriculum integrated with a normal baccalaureate degree program. The program is divided into a two-year basic course and two-year advanced course. You incur no military service obligation while enrolled in the basic course. Flexibility is provided to you through a number of options and alternatives designed to tailor the program requirements to your situation and time remaining at the university. These alternatives recognize previous militaryrelated experience and allow for exceptions to the normal four-year curriculum.
Both male and female students who have at least two years of undergraduate and/or graduate study remaining may qualify for entry into the advanced course program. You may obtain advanced placement (1) by completing a sixweek ROTC Basic Camp, (2) by completing Army National Guard or Army Reserve basic training, or (3) by having veteran status. Questions on advanced placement should be addressed to the department chair.
Military science courses are open to all UW-Stevens Point students. Any student can earn a minor in military science by completing the required curriculum.

## Military Science Minor

Consists of a minimum of 23 credits:

1. Completion of History 274/374 (U.S. Military History). 301, 302, 451, and 452.
2. Completion of History 274/374 (U.S. Military History) *MS 101, 102, 211, and 213 may be waived for veterans and students who have completed the six-week ROTC Basic Camp or Army National Guard/Army Reserve basic training. Up to 6 academic credits may be available to students who participate in the six-week ROTC Basic Camp. Specific questions on requirements should be directed to the department chair.
A detailed Reserve Officers' Training Corps Program orientation and answers to any questions are available upon request.

## Courses in Military Science

101. Introduction to Military Science. 1 cr . Introduction to universal leadership skills; emphasis on practical work. Specific subtopics vary but may include land navigation, marksmanship, rappelling, water safety, first aid, physical
fitness, leadership, survival, and cold weather indoctrination. One hr lec per wk and optional one hr lab every other wk.
102. Introduction to Military Science. 1 cr. Continuation of 101 .
103. Leadership Laboratory. 1 cr . (Optional) Off-campus weekend orientation to and participation in outdoor, physical skills, preceded by on-campus introductory class; orientation toward summer-fall outdoor environment; specific subjects will be announced in the timetable. Prereq: Con reg in 101 or 102.
104. Leadership Laboratory. 1 cr. (Optional) Same as 103; orientation toward winter outdoor environment. Prereq; Con reg in 101 or 102.
105. Orienteering and Basic Survival. 2 cr. Fundamentals of map reading, land navigation, and first aid, with approximately eight hrs of outdoor field orienteering; basic wilderness survival to include techniques and psychological factors. Two hrs lec per wk and optional one hr lab every other wk. Prereq: 101, 102, or cons chair.
106. Wilderness Survival. 2 cr . Study and practical application of the mental and physical endurance stresses encountered in an emergency, remote setting; common injuries encountered in wilderness situations. A late-spring three-day wilderness exercise included. One hr lec per wk and optional one hr lab every other week. Prereq: 211 or cons chair.
107. Leadership Laboratory. 1 cr. (Optional) Same as 103; required performance in organizational leadership positions. Prereq: Con reg in 211 or cons chair.
108. Leadership Laboratory. 1 cr. (Optional) Same as 104; required performance in organization leadership positions. Con reg in 213 or cons chair.
109. Leadership Management. 3 cr. Principles, objectives, and techniques; functions of a leader and special problems in military leadership; emphasis on problem analysis and decision-making, delegation and control, planning and organizing, and interpersonal skill required for effective management. Two hrs lec per wk and two hrs lab every other week. Prereq: 101, 102, 211, 213, advanced placement, or cons chair.
110. Command and Control. 4 cr . Techniques of directing and coordinating individual and team tactics; functions of branches in support of the Army military communications system; application of the principles of leadership; development of potential by planning, preparing, and presenting practical instruction. Three hrṣ lec per wk and two hrs lab every other wk. Prereq; 301 or cons chair.
111. Special Work in Contemporary Military Leadership. 1-3 cr. Advanced Military Science students may, by agreement with the chair of the department, participate in an intensive readings program examining contemporary military leadership and combat motivation. Participation limited to one semester per student. Prereq: Cons chair.
112. Operations, Logistics, and Administration. 4 cr . Advanced instruction in management skills; processes for arriving at decisions and translating them into plans and orders; principles of administration and logistics; practical experience in the management of personnel through performance as a cadet officer in the planning and supervision of cadet activities. Three hrs lec, one hr lab per wk. Prereq: 302 or cons chair.
113. Military Law. 3 cr. Fundamental concepts of U.S. military justice; requirements for a separate body of law for the military; organization, historical evolution, and
procedures of the Uniform Code of Military Justice; introduction to and understanding of a professional soldier's responsibilities, need for ethical conduct and improved ethical decision-making skills; (practical experience as 451 ). Two hrs lec, one hr lab per wk. Prereq: 451 or cons chair.
NOTE: In conjunction with the School of Health, Physical Education, Recreation and Athletics, the Department of Military Science offers the following courses, credit for which counts toward fulfillment of the physical education general degree requirements:
GPE 153. Advanced Physical Fitness. 1 cr. Physical training program designed to increase upper body strength and endurance. Activities include weight training, aerobic exercise, jogging, and participation in a variety of individual and team sports.
GPE 177/187. Fall Leadership Laboratory. 1 cr. Offcampus weekend orientation to and participation in outdoor physical skills preceded by on-campus introductory class and safety orientation. Activities include: rockface rappelling, canoe orienteering, and a leader's reaction course.
GPE 178/188. Winter Leadership Laboratory. 1 cr. Offcampus weekend orientation to and participation in outdoor physical skills preceded by on-campus introductory class and safety orientation. Activities include crosscountry skiing, snowshoeing, winter sports triathalon, and a leader's reaction course.

## MINORITY AND ETHNIC STUDIES <br> See History.

## MUSEUM TECHNIQUES <br> (College of Letters and Science)

Charles A. Long, Adviser
Room 428, Natural Resources Building
Phone: (715) 346-2858, -2455
William LeGrande, Museum Virector
Room 426A, Natural Resources Building
Phone: (715) 346-4254
A minor in museum techniques is interdepartmental and is administered by the Department of Biology. It is useful in various disciplines.

## Museum Techniques Minor

Consists of a minimum of 22 credits:

1. Biology 322.
2. Art 101 or 102 , and 103 or 106, or Instructional Resources 231 and Art 101 or 102.
3. Either a. or b:
a. Anthropology 250, 393, and 340S.
b. One or more of these: Biology $305,342,360,372$, $374,376,377,378$.
4. The remaining courses to be selected from Anthropology 111, Biology 305, 379, 388; Communication 330; Computer Information Systems 102; Geology 105, 200; Instructional Resources 231; Natural Resources 368 or 369.
5. History, art, geology, geography, and anthropology (archaeology) majors may negotiate credit for museumoriented courses (e.g., Indians, Greek culture). All relevant semester abroad courses are appropriate for the museum techniques minor. Contact the International Programs Office for more information.

## MUSIC

(College of Fine Arts)
Donald E. Greene, Chair
Room B120, College of Fine Arts Building
Phone: (715) 346-3107
Faculty: Barnett, Beadle, Borowicz, Callahan, d'Armand, Doebler, Evenson, Franceschi, D. Glocke, J. Glocke, Goan, Greene, Irish, Kase, Keller, B. Martz, D. Martz, Radd, Reichl, Rosen, D. Saladino, J. Saladino, Glen Shulfer, L. Smith, Splittberger-Rosen, D. Stewart, J. Thomas, Zenz.
Special music scholarships are available to high school seniors with outstanding talent in musical performance. These scholarships are awarded each spring on the basis of special auditions held before members of the music faculty. Contact the department chair for information as to date, time, and other details.
The following organizations are open to all students: Pointer Marching Band, University or Concert Choir, Oratorio Chorus, Wind Ensemble, Symphonic or University Band, Vocal and Instrumental Jazz Ensemble, University Orchestra, plus numerous small ensembles.
NOTE: Music majors are required to register for 2 credits of large ensemble every semester (normally, a total of 16 credits, with exceptions for recital, student teaching, and transfer.) Small ensembles are available if you wish additional experience in the specialty literature. Permission to register, placement, and exceptions to the requirements are subject to the approval of the instructor and the chair.
All general degree requirements for the bachelor of music degree must be met. Refer to the General Degree Requirements section of this catalog.

## Bachelor of Music Degree (General)

1. Theory, 16 credits: Music $110,111,112,113,210,211$, 212, 213. Placement examination required. If you have Insufficient background, take Music 109 as prerequisite.
2. Theory electives, 4 credits. Music $313,314,315,316$, $413,414$.
3. Applied music, 12 credits: When piano is not the major applied area, it must be taken for 4 credits or to Level III, whichever is reached first. A proficiency of Level V must be earned on the major instrument before graduation.
4. Required ensemble, 16 credits. (See NOTE, above.)
5. Music literature, 14 credits: Music 220, 221, 320, 321, and 6 credits of electives.
6. Music electives from at least two of the following groups, 8 credits:
a. Music, 310,410 .
b. Music 150 through 159 .
c. Music 160 through 177 .

## Bachelor of Music Degree in Applied Music

1. Piano. Students are admitted by audition only, performance proficiency toward the degree will be reviewed at the end of the second semester of the freshman year for permission to continue. A half recital is required in the junior year and a full recital in the senior year A proficiency grade of VII in piano must be reached for presentation of the senior recital and graduation.
a. Applied music, 28 credits: 160,4 credits; 260,360 , and 460,24 credits.
b. Theory, 22 credits: $110,111,112,113,210,211,212$, 213; and 6 credits from $310,313,314,315,316,317$, 410,411 . Placement examination required. If you have insufficient background, take Music 109 as prerequisite.
c. Music literature and history, 14 credits: 220, 221, 320, 321, 420, 421.
d. Piano pedagogy, 2 credits: 491.
e. Required ensemble, 16 credits: Must include at least two credits in 328 or 429 . Eligibility will be determined by the instructor and the coordinator for accompanying. (See NOTE, above.)
2. Organ. Students are admitted only by a piano audition before the organ and piano faculty. Level IV proficiency in piano is required. A half recital is required in the junior year, and a full recital (including at least three selections from memory) in the senior year. Organ proficiency of Level VIII is required for performance in the senior recital and for graduation.
a. Applied music, 28 credits: 161,4 credits; 261, 361 , 461, 24 credits.
b. Theory, 22 credits: $110,111,112,113,210,211,212$, 213,310 , and 410 or 411.
c. Music literature and history, 14 credits: 220,221 , 320, 321, 324, 325.
d. Service playing techniques, 2 credits: 349.
e. Required ensemble, 16 credits (choral area preferred). (See NOTE, above.)
3. Voice. Students are admitted by audition only. Performance proficiency toward the degree will be reviewed at the end of the second semester of the freshman year for permission to continue. By the end of the sophomore year you are expected to achieve a proficiency level of III in piano and IV voice. A half recital is required in the junior year and a full recital in the senior year. A proficiency of Level VII in voice must be reached for presentation of the senior recital and graduation. Level III in piano is also required for graduation.
a. Applied music, 28 credits: 162,4 credits; 262,362 , and 462, 24 credits.
b. Theory, 22 credits: $110,111,112,113,210,211,212$, 213,317 ; and 4 credits from $310,313,314,410,411$. Placement examination required. If you have insufficient background, take 109 as prerequisite.
c. Music literature and history, 14 credits: 220,221 , $320,321,323,422$.
d. Vocal pedagogy, 2 credits: 492.
e. Required vocal ensemble, 16 credits. (See NOTE, above.)
f. Opera Workshop, 2 credits: 390.
4. String instrument. Students are admitted by audition only. You must reach a proficiency of Level III in piano and VII in the major instrument, and give a senior recital.
a. Applied music, 28 credits: 163 through 166, 4 credits; 263 through 266,363 through 366 , and 463 through 466, 24 credits.
b. Theory, 28 credits: $110,111,112,113,210,211,212$, $213,315,317$, and 8 credits from $310,313,314,316$, 410,411 . Placement examination required. If you have insufficient background, take 109 as prerequisite.
c. Music literature and history, 11 credits: 220, 221, 320,321 , and 426 or 427.
d. String pedagogy, 2 credits: 496.
e. Required ensemble, 16 credits. (See NOTE, above.)
5. Wind instrument. Students are admitted by audition only. Performance proficiency toward the degree will be reviewed at the end of the second semester of the freshman year for permission to continue. By the end of the sophomore year you are expected to achieve a proficiency of Level III in piano and IV in the appropriate instrument. A half recital must be presented in the junior year and a full recital in the senior year. A proficiency of Level VII must be reached for completion of the recital and for graduation. Level III in piano is also required for graduation.
a. Applied music, 28 credits: 167 through 176, 4 credits; 267 through 276,367 through 376 , and 467 through 476, 24 credits.
b. Theory, 28 credits: $110,111,112,113,210,211,212$, $213,315,317$; and 8 credits from $310,313,314,316$, 410, 411. Placement examination required. If you have insufficient background, take Music 109 as prerequisite.
c. Music literature and history, 11 credits: 220, 221, 320,321 , and 426 or 427.
d. Brass or woodwind pedagogy, 2 credits: 493 or 494.
e. Required ensemble, 16 credits. (See NOTE, above.)
6. Percussion. Students are admitted by audition only. Performance proficiency toward the degree will be reviewed at the end of the second semester of the freshman year for permission to continue. By the end of the sophomore year you are expected to achieve a proficiency of Level III in piano and IV in the appropriate instrument. A half recital must be presented in the junior year and a full recital in the senior year. A proficiency of Level VII must be reached for

completion of the recital and for graduation. Level III in piano is also required for graduation.
a, Applied music, 28 credits: 177,4 credits; 277,377 , and 477, ( 24 credits).
b. Theory, 28 credits: $110,111,112,113,210,211,212$, $213,315,317$, and 8 credits from $310,313,314,316$, 410, 411. Placement examination is required. If you have insufficient background, take 109 as prerequisite.
c. Music literature and history, 8 credits: $220,221,320$, 321.
d. Percussion pedagogy, 2 credits: 495 .
e. Required ensemble, 16 credits. (See NOTE, above.)
7. Classical Guitar. Students are admitted by audition only. Performance proficiency toward the degree will be reviewed at the end of the second semester of the freshman year for permission to continue. By the end of the sophomore year you are expected to achieve a proficiency of Level III in piano and IV in the appropriate instrument. A half recital must be presented in the junior year and a full recital in the senior year. A proficiency of Level VII must be reached for completion of the recital and for graduation. You must submit a research paper on a theoretical, historical, or pedagogical topic dealing with the guitar, Level LII in piano is also required for graduation.
a. Applied music, 28 credits; 181, 4 credits; Music 280 , 380 , and 480,24 credits. Class Guitar (149) should be waived in the audition and cannot count toward the 28 credits of applied music.
b. Theory, 28 credits: $110,111,112,113,210,211,212$, $213,315,317$, and 8 credits from $310,313,314,316$, 410, 411. Placement examination required. If you have insufficient background, take 109 as prerequisite.
c. Music history and literature, 11 credits: 220,221 , $320,321,326$.
d. Small ensemble, 6 credits: $131,231,331,431$ (Guitar Ensemble).
e. Required ensemble, 16 credits. (See NOTE, above.)

## Bachelor of Music Degree in Jazz Studies

1. Theory, 18 credits, $110,111,112,113,210,211,212$, 213, 317.
2. Creative techniques, 6 credits, $192,217,391$.
3. History and literature, 10 credits: $220,304,305$; and 2 credits from $221,320,321$.
4. Music business, 2 credits: 319 .
and ONE of the following emphases:
Performance Emphasis: Students are admitted by audition only. A proficiency of level VI is required on the major applied instrument. A proficiency of Level III is required on piano if it is not the major instrument. Wood wind majors must play saxophone, clarinet, and flute, attaining Level VI on the major instrument, and Level IV on the two secondary instruments. A senior recital is required for all performance majors.
5. Applied music, 30 credits. 4 credits from $160,162,166$ through 177, 181, 24 credits from $260,262,266$ through $277,281,360,362,366$ through $377,381,460,462,466$ through $477,481,2$ credits of 392 .
6. Required ensemble, 24 credits: 8 credits from 341,342 , 343 (guitar and piano majors may substitute 123 or 140); 12 credits from $124,125,126,344,345 ; 4$ credits from $123,130,390$.
OR
Composition/Arranging Emphasis: You must maintain a B
average in the first two years of music theory to be accepted into this emphasis. A proficiency of Level V is required on the major applied instrument. A proficiency of Level IV is required on the piano if it is not the major instrument.
7. Theory electives, $12-14$ credits: $310,315,316,396,410$, 411.
8. Composition/arranging, 10 credits: 4 credits of 379 ; 417, 482.
9. Applied music, 10 credits: 4 credits from 160 through 181; 4 credits from 260 through $281 ; 2$ credits from 360 through 381.
10. Required ensemble, 12 credits: 8 credits from 341,342 , 343 (guitar and piano majors may substitute 123 or 140 ); 4 credits from $123,124,125,126,130,344,345$.
11. Music electives: $4-6$ credits.

## Bachelor of Music Degree in Music Education

Three majors are available in music education: (1) instrumental K-12; (2) choral 7-12; and (3) general music $\mathrm{K}-12$. When you major in one area, you can complete addon certification requirements in the other two. Add-on certification is also available for music education majors in exceptional education: music education.
In addition, special areas of emphasis are designed to complement the music education tracks (noncertifiable): jazz education, and Suzuki talent education.
Proficiency Levels: A proficiency of Level V must be earned on the major instrument. Piano proficiency requirements are Level III for instrumental majors and Level IV for choral and general music majors. If piano or organ is the major instrument, choral and general music majors must reach Level IV in voice.
All requirements must be completed before the student teaching/internship semester.

1. Instrumental (K-12):
a. Education, 31 credits: $100,351,355,380,381,386$, 398.
b. Music Education, 5 credits: 201, 324, 326.
c. Music, 65 credits:
1) Theory, 16 credits: $110,111,112,113,210,211$, 212, 213. Placement examination is required. If you have insufficient background, take 109 as prerequisite.
2) Orchestration, 2 credits: 315.
3) Applied music, 10 credits (Level V).
4) Music literature, 8 credits: $220,221,320,321$.
5) Class applied, 10 credits: $152,153,154,155,156$, 157. (Delete the applied course in your major area; string majors may substitute Mus 495, MusEd 384, or MusEd 358 for 152 or 153.)
6) Music 159 (Class voice for instrumentalists), 1 credit.
7) Conducting, 4 credits: $317,395$.
8) Major ensemble, 14 credits. (See NOTE above.)
2. Choral (7-12):
a. Education, 31 credits: $100,351,355,380,381,386$, 398.
b. Music Education, 3 credits: 201, 325.
c. Music, 64 credits:
1) Theory, 16 credits: $110,111,112,113,210,211$, 212, 213. Placement examination is required. If you have insufficient background, take 109 as a prerequisite.
2) Vocal pedagogy, 2 credits: 492 .
3) Applied music (major), 10 credits: Voice, piano, or organ (Level V).
4) Applied music (minor), 6 credits: Voice or piano (Level IV).
5) Music literature, 10 credits: $220,221,320,321$, 322.
6) Conducting, 4 credits: 317,394 .
7) Major ensemble, 14 credits: 341 . (See NOTE above.)
8) Additional ensemble, 2 credits: Choice of 344 (2 credits), or 130, 390 ( 1 credit each).
3. General Music (K-12).
a. Education, 31 credits: $100,351,355,380,381,386$, 398.
b. Music Education, 5 credits: 201, 323, 382.
c. Music, 59 credits:
1) Theory, 16 credits: $110,111,112,113,210,211$, 212, 213. Placement examination is required. If you have insufficent background, take 109 as prerequisite.
2) Applied music (major), 10 credits: Voice, piano, or organ (Level V).
3) Applied music (minor), 6 credits: Voice or piano (Level IV).
4) Music literature, 11 credits: $220,221,320,321$, and choice of one of the following: 304, 305, or 329.
5) Conducting, 2 credits: 317.
6) Major ensemble, 14 credits: 341. (See NOTE above.)

## 4. Add-on certification areas.

Voice, piano, and organ majors are advised to complete both choral (7-12) and general music (K-12) tracks.
Instrumental majors may also wish to expand their certification areas. Consult your adviser.
a. Instrumental (K-12) certification for choral or general majors:

1) Major applied band or orchestra instrument to Level IV.
2) Class applied instruments, 10 credits: 152,153 , $154,155,156,157$. (Delete the applied course in your major area. String majors may substitute Mus 495, MusEd 384, or MusEd 385 for 152 or 153.)
3) Music education, 4 credits: $324,326$.

Advanced instrumental conducting, 2 credits: 395. Major ensemble, 8 credits: 342 or 343.
4) Student teaching, Education 398. Minimum of 5 credits.
b. Choral (7-12) certification for instrumental or general majors:

1) Voice applied to Level IV.

Piano applied to Level IV.
Music 341, choir: 8 credits.
Additional choral ensemble, 2 credits: 344 (2 credits); or 130,390 ( 1 credit each).
Choral literature, 2 credits: 322.
Secondary methods, 2 credits: MusEd 325 (Choral).
Advanced choral conducting, 2 credits: 394.
Vocal pedagogy, 2 credits: 492.
2) Student teaching, Education 398. Minimum of 5 credits.
c. General music (K-12) certification for instrumental or choral majors:

1) Voice applied to Level III. Piano applied to Level IV.
2) Music 341, Choir: 6 credits.

Additional Music History, 3 credits: Choice of 304,305 , or 329.
3) Student teaching, Education 398. Minimum of 5 credits.
d. Exceptional education: music education (\#861):

This add-on certification is available only to music education majors.

1) Music Education 390, 2 credits.
2) Education: 351, 3 credits; 354, 3 credits; 398, 4 credits. (Student teaching with exceptional children.)

## 5. Areas of Emphasis.

The following plans for areas of emphasis do not lead to certification. They are designed to guide you in pursuing special interest areas.
a. Jazz education, instrumental or vocal, 15 credits:

Music 123 or $130 ; 192,217,304,305 ; 344$ or 345.
Music Education 427.
b. Suzuki talent education, 9 credits:

Music Education 384/584, 385/585, 386/586, 426.

## Bachelor of Music Degree in Music Literature

In this program you must have a cumulative grade point average of at least 3.00 by the end of the sophomore year to be considered candidates for the degree. Senior candidates will take an oral examination administered by the music history faculty during the first two weeks of the second semester in their senior year.

1. Theory, 16 credits: $110,111,112,113,210,211,212$, 213. Placement examination required. If you have insufficient background, take 109 as prerequisite.
2. Theory electives, 4 credits: $310,313,314,315,316,410$, 411.
3. Applied music (major), 12 credits: A proficiency of Level V must be earned on the major instrument before graduation. A proficiency of Level IV on piano is required if it is not the major instrument.
4. Required ensemble, 16 credits. (See NOTE, above.)
5. Music literature. 33 credits:
a. Required courses, 21 credits: 220, 221, 320, 321, 326, 329, and 427 (each 3 credits).
b. Electives, 12 credits: Choice of 304, 305, 322, 323, 324, 325, 420, 421, 422, 423, 426 (each 3 credits).

## Bachelor of Music in Theory/Composition

In this program you must maintain at least a " $B$ " average in the first two years of music theory to be considered a candidate for a major in theory/composition. You must reach a proficiency of Level IV in piano and V in a major instrument.

1. Applied music, 10 credits: A proficiency of Level V must be earned in the major instrument. A proficiency of Level IV in piano is required if piano is not the major instrument.
2. Theory, 34 credits: $110,111,112,113,210,211,212$, 213, 310, 315, 316, 317, 318, 410, 411. Placement examination is required. If you have insufficient background, take 109 as prerequisite.
3. Composition, 4 credits: 179 through 379 , as determined by audition.
4. Music literature and history, 8 credits: 220, 221, 320, 321.
5. Required ensemble, 16 credits. (See NOTE above.)
6. Music electives, 6 credits.

In the second semester of your junior year, you will choose, with permission of the theory/composition faculty, a theory emphasis or a composition emphasis. The
following additional courses are required:
For the theory emphasis: Computer Information Systems 101; Music 499, Theory Teaching Internship, 2 credits, Baccalaureate Paper, 3 credits.
For the composition emphasis: Music 379, 479, 8 credits including senior recital.

## Music Minor

Consists of 24 credits:

1. Theory, 8 credits: $110,111,112,113$. Placement examination required. If you have insufficient background, take 109 as prerequisite.
2. Applied lessons, 4 credits: $160-181$ (2 credits each semester).
3. Major ensemble, 4 credits: $140,341,342,343,344$, or 345 ( 2 credits each semester).
4. Music electives, 8 credits, selected from at least two of the following groups: (Note: Music 100, 102, 109; Music Ed 201, 381 do not count toward the music minor.)
a. Theory/composition courses.
b. Conducting courses.
c. Music history and literature courses.
d. Music education courses.
e. Small ensembles or major ensembles.
f. Jazz studies: performance, history, or analysis.
g. Private applied or class applied.
5. Recital attendance requirement, no credit. See the Music Department student handbook.
NOTE: If you are interested in a music minor, please contact the Music Department and consult with a music adviser regarding your musical objectives, music electives, and the recital attendance requirement.

## Courses in Music

Also see Music Education (next section).
100. Appreciation and History of Music. 3 cr . Development of music, stressing the elements of music understanding and intelligent listening; form and design in composition. Not to be counted toward a music major or minor, or the bachelor's degrees in music. GDR:HU1
101. Appreciation of Music in Performance. 3 cr . Music appreciation course focused on the art of listening to and critiquing live music performances. Class lectures, in-class demonstrations/performances, and required attendance at public concerts. Not to be counted toward a music major or minor.
102. Popular Music in America. 1-3 cr. The music of America's people, past and present: The great jazz and folk movements. Broadway musical theatre, film music; recording, publishing, and broadcasting. Not to be counted toward a music major or minor, or the bachelor's degrees in music. A subtitle will be added each time the course is offered; it may be repeated any number of times, but the same subtitle cannot be repeated. May be applied toward the humanities required in all curricula except for the bachelor's degrees in music. GDR:HU1
109. Fundamentals of Music Theory. 2 cr . A survey of the basic elements of musical structure and communication (notation, rhythm, scales, intervals, chords), and their application toward developing vocal, manual, and aural musicianship skills. Three hrs per wk.
110. Elementary Theory. 3 cr. Review of theory fundamentals, introduction to part-writing, harmonic and structural analysis in the diatonic ldiom, and supporting keyboard skills. Prereq: Placement exam; students with insufficient background must take 109 .
*111. Elementary Theory. 3 cr. Extension of written and keyboard musicianship skills in elementary techniques of modulation and chromaticism. Prereq: $110,112$.
*112. Elementary Music Reading and Ear-Training. 1 cr. Applied musicianship skills in support of, and concurrent with, Music 110. Prereq: Same as 110.
*113. Elementary Music Reading and Ear-Training. 1 cr. Extension of applied musicianship skills in support of, and concurrent with, Music 111. Prereq: $110,112$.
*These courses are offered in pairs. In this sequence Music 110 is offered with 112 ; 111 with 113 .
122-138. Small Ensembles. Each 1 cr. May be repeated for credit. Prereq: Cons instr.

> 122-Vocal Jazz; 123 -Instrumental Jazz Combo;
> 124 -Pit Orchestra; 125 -Studio Orchestra,
> 126 -Review Ensemble; 130 -Vocal; 131 -String;
> 132 -Flute; 133 -Clarinet; 134 -Saxophone;
> 135-Mixed Woodwind; 136 -Low Brass; 137 -Mixed
> Brass; 138 -Percussion.
140. Oratorio Chorus. 2 cr. A University/Community chorus which performs the choral masterworks. Open to anyone with or without credit. No audition required, May be repeated for credit.
143. Marching Band. 1 cr. Open to nonmusic majors. No audition required. May be repeated for credit.
144. University Band. 1 cr, An opportunity for nonmusic majors to continue playing in a musical organization for enrichment. No audition necessary. May be repeated for credit.
149-157. Class Applied Music. Each 2 cr (except 150). The elements of each medium taught by class participation and observation.

> 149-Guitar, 150 ( cr)-Vocal Techniques for: Instrumentalists; 151 -Voice; 152 -Violin/Viola;
> 153-Cello/Bass (Prereq: 152 ); 154 -Double
> Reeds/Flute; 155 -Single Reeds; 156 -Brass;
> 157 -Percussion.
158. Group Piano. 1 or 2 cr. Piano through Level III; for the nonpianist music major, exemption, by audition, from any level or part of a level. Not to be counted toward a major or minor in music, except the bachelor of music degree in music education-vocal emphasis.
159. Group Piano for the Elementary Teacher. 2 cr. Basic piano skills in music and rhythmic reading, and in the harmonization of simple melodies; for students in elementary education.
160-181. First Year of Applied Music. Each 2 cr. Prereq. Cons chair.

> 160-Piano; 161 -Organ, 162 -Voice; 163 - Violin;
> 164 - Viola; 165 -Violoncello; 166 -Double Bass;
> 167 - Flute; 168 -Oboe; 169 - Clarinet; 170 -Bassoon;
> 171 - Saxophone; 172 -Trumpet; 173 -Horn;
> 174 -Trombone; 175 -Baritone; 176 -Tuba;
> 177 - Percussion; 178 -Harp; 179 Composition;
> 180 Classical Guitar; 181 -Jazz Guitar.
192. Introduction to Jazz Improvisation. 1 or 2 cr .

Elements of improvising in jazz styles through playing.

Prereq: Knowledge of chords and scales, or cons instr. 1 cr for first eight weeks; 2 cr for the full semester.
193. Improvisation of Music. 2 cr . Applied improvisation using the musical materials of jazz, aleatory, chance, and free improvisation. Prereq: Basic proficiency on a musical instrument, an understanding of improvisation in other media, or cons instr.
*210. Intermediate Theory. 3 cr . Partwriting, harmonic and structural analysis in the chromatic idiom, and supporting keyboard skills. Prereq: 111, 113.
*211. Intermediate Theory. 3 cr . Extension of theory and musicianship to the contemporary idiom; historical survey of musical form and style, with individual creativity and supporting keyboard skills. Prereq: 210, 212.
*212. Intermediate Music Reading and Ear-Training. 1 cr. Advanced applied musicianship skills in support of, and concurrent with, 210. Prereq: 111, 113.
*213. Intermediate Music Reading and Ear-Training. 1 cr. Extension of advanced applied musicianship skills in support of, and concurrent with 211 . Prereq: 210, 212.
*These courses are offered in pairs. In this sequence Music 210 is offered with $212 ; 211$ with 213.
Students who fail or receive an incomplete in applied musicianship courses (112, 113, 212, 213) may enroll for the next course in the sequence with permission of the theory faculty, provided the failed course is repeated, or the incomplete removed, in the concurrent semester.
217. Beginning Jazz Arranging Techniques. 2 cr . Study of jazz and commercial arranging styles for public school and professional organizations. Prereq: 111 or cons instr.
220. Baroque Period. 2 or 3 cr . Musical idioms and styles of the Baroque period, with emphasis on its origins in antiquity, development and rise of new forms, and the relationship of music to the general culture of the period. Majors in music history/literature must register for 3 cr ; other majors with cons instr. GDR:HU1
221. Classic Period. 2 cr . ( 3 cr with Writing Emphasis). Musical idioms and styles from 1700 to 1825 , with emphasis on the development of new forms, and the relationship of music to the general culture of the period. Majors in music history/literature must register for 3 cr . GDR:HU1
222-238. Small Ensembles. Each 1 cr. Same listing as for 122-138, with a " 2 -" designation. May be repeated once for credit. Prereq: 122-138.
260-281. Second Year of Applied Music. Students who are working toward the bachelor of music degree in applied music receive 4 cr ; others 2 cr . Same listing as for $160-181$, with a " 2 -" designation. May be repeated once for credit. Prereq: 160-181, and cons chair.
300. Music International. 2 or 3 cr . Music in performance in Semester Abroad sites; attendance at performances. supplements attention to backgrounds, to the development of various forms, and to masterworks of various periods; offered only as part of the UW-SP Overseas Study Program. May be applied toward the bachelor of music degree, the music minor, and the humanities requirement for a degree. Prereq: Jr st or cons instr. GDR:HU1 (certain subtitles only)
301/501. History of Women in Music. 2 or 3 cr . The contribution of women as composers, performers, authors, and teachers throughout European and American history. GDR:HU1

304/504. Jazz History and Literature I. 3 cr . History and literature of jazz, 1900-1945; New Orleans, Chicago, Swing, Big Bands. GDR:HU1
305/505. Jazz History and Literature II. 3 cr. History and literature of jazz, 1945 to present; Be-Bop, Cool, Third Stream Hard Bop Regression, Electric Fusion, Modal Styles. GDR:HU1
310. Counterpoint. 3 cr . Writing and analysis of contrapuntal forms and textures useful to the composerarranger; emphasis on the stylistic contribution of J. S. Bach and the Baroque era. Prereq: 211, 213.
313/513. Diction for Singers. 2 cr . Application of international phonetic alphabet to lyric diction in English, Italian, German, and French repertoire. Prereq: Cons instr.
314/514. Composition. 2 cr. Twentieth century compositional techniques with projects in large forms for chamber ensembles. Prereq: 211 or cons inst.
315. Orchestration. 2 cr. Orchestral instruments in regard to their ranges, playing characteristics, physical properties, history, and advisable use. Prereq: 110.
316/516. Electronic Music Studio, $1-3 \mathrm{cr}$, Generation, synthesis, mixing, and recording of electronic and live sounds, including operation of the synthesizer, multi-track recording, and techniques of producing tapes of sound effects, transcriptions, and original compositions for a variety of artistic and commercial applications. Prereq: Cons instr.
317. Conducting. 2 cr . Conducting techniques for vocal and instrumental groups; experience in conducting through class laboratory situations. Prereq: 110.
318. Instrumentation. 2 cr. Contemporary instrumental techniques emphasizing their use in small ensembles. Prereq: 315.
319/519. Introduction to Music Business. 2 cr. Copyright law, unions and guilds, recording industry, television/film and radio, music management.
320/520. Romantic Period. 2 or 3 cr . Musical idioms and styles of the Romantic Period from 1825 to 1900 , with emphasis on its origins, development, and rise of new forms, and the relationship of music to the general culture of the period. Majors in music history-literature must register for 3 cr , other majors with cons instr. GDR:HU1
321/521. Music in the 20th Century. 2 or 3 cr . Same as 320/520, from 1900 to the present. GDR:HU1
322. Choral Literature. 2 cr. Survey of the significant small forms of choral composition from the Renaissance to the present, with emphasis on stylistic understanding.
323/523. Opera. 3 cr . Opera from 1600 to the present, with special emphasis on one masterwork of each period. GDR:HU1
324/524. Organ Literature. I. 3 cr. Basic literature of the organ from the 14 th century to the late 17 th century, including the important predecessors of J. S. Bach, their styles, and the organs for which they wrote. Prereq: Keyboard proficiency of Level IV.
325/525. Organ Literature II. 3 cr. Continuation of Music 324, with emphasis on the works of J. S. Bach through the contemporary period; style analysis by means of recordings and score study, with outside research assignments. ( 324 and 325 need not be taken in sequence.) Prereq: Keyboard proficiency of Level IV.

326/526. Music Before 1600.3 cr. History, literature, and stylistic trends of music from the Greeks to 1600. GDR:HU1
327/527. Music Reference and Research Techniques. 2 cr. Introduction to musical scholarship and the writing of creative projects in music history-literature, theory, and musicology, emphasis on bibliographical survey of reference materials. Prereq: $211-212,220,221$, and cons instr.
328/528. Studio Accompanying. 1 cr. For the intermediate and advanced pianist; development of accompanying skills in vocal and instrumental music; supervision of applied instructor in an area other than piano; required for applied piano degree. Prereq: Cons piano faculty.
329/529. American Music. 3 cr. From the time of the pilgrims to the present, with special emphasis on jazz and ethnic music, and their influence on contemporary music. GDR:HU1
330-339/530-539. Third Year Small Ensemble, Each 1 cr. May be repeated once for credit, Prereq: 230-239.
$330 / 530$ - Vocal; $331 / 531$-String; $332 / 532$-Flute;
$333 / 533$ - Clarinet; $334 / 534$-Saxophone;
$335 / 535$-Mixed Woodwind, $336 / 536$-Low Brass;
$337 / 537$-Mixed Brass; $338 / 538$-Percussion;
$339 / 539$-Jazz Band.

341/541. Large Ensemble: Choir, 1 or $2^{*}$ cr. May be repeated for credit. Prereq: Audition or cons instr.
342/542. Large Ensemble: Orchestra. 1 or $2^{*}$ cr. May be repeated for credit. Prereq: Audition or cons instr.
343/543. Large Ensemble: Orchestra. 1 or 2* cr. May be repeated for credit. Prereq; Audition or cons instr.
344/544. Large Ensemble: Vocal Jazz. 2* cr. May be repeated up to 16 cr. Prereq. Audition or cons instr.
345/545. Large Ensemble: Instrumental Jazz. 2* cr. May be repeated up to 16 cr. Prereq. Audition or cons instr.
*Students not majoring in music may attend five rehearsals weekly for 2 cr , or three rehearsals for 1 cr , with optional scheduling. During the fall semester of their junior and senior years, students majoring in music education instrumental must register for 1 cr of marching band, and 1 cr of wind ensemble or symphonic band.
349. Service Playing Techniques. 2 cr. Practical application of the problems in church service playing, with introduction to the performance in liturgical forms, anthem and oratorio accompaniments, piano adaptations for the organ, modulations, transposition, improvisation, conducting from the console, and hymnology. May be repeated for a maximum of 4 cr with cons instr. Prereq: 211, 213; organ proficiency of Level IV.
359-381. Third Year of Applied Music. Students who are working toward the bachelor of music degree in applied music receive 4 cr ; others 2 cr . (Junior and senior music students not majoring in applied music may register for 4 cr with the approval of the instructor and the department chair.) Prereq: 260-281 and cons chair.

[^0]390. Opera/Musical Theatre Workshop. 1 cr. Practical experience in opera, operetta, musical comedy. May be repeated for credit; required in applied voice degree. Prereq: Cons instr.
391/591. Jazz Keyboard Techniques. 2 cr. Basic keyboard skills in chord voicing, chord substitution, accompanying, jazz keyboard styles. Prereq; 211 or cons instr.
392/592. Advanced Jazz Improvisation. 2 cr. Theory of extended tertial and quartal harmonies and chord substitution; scalar improvisation starting with the innovations of Be-Bop. Prereq. 192 or cons instr.
394. Advanced Choral Conducting. 2 cr . Conducting and rehearsal techniques with emphasis on the relationship between gesture and interpretation of the score; experience in conducting the university choral ensembles. Prereq: 317.
395. Advanced Instrumental Conducting. 2 cr. Experience in selecting, conducting, and rehearsing instrumental music suitable for use in elementary and secondary schools; emphasis on performance problems unique to band and orchestra instruments; required performance on secondary instruments. Prereq 317.
396/596. Introduction to Recording Techniques, 2 cr . Principles and practices of auditorium and studio recording including multi-track taping, mixing, overdubbing, mixing and signal processing; experience in recording in a variety of instrumental and vocal ensembles.
410. Form and Analysis I. 3 cr. Survey of musical forms through Beethoven, in context of their contribution to musical style, with analysis techniques useful in performance, score preparation, and teaching. Prereq: 211, 213.
411. Form and Analysis II. 3 cr. Continuation of 410 from Beethoven to the present. ( 410 and 411 need not be taken in sequence.) Prereq; 211, 213.
412/612. Projects in Electronic Music, $1-3$ cr. Individually designed projects; credit assigned according to studio time and resources required. Prereq: $316 / 516$ and cons instr.
413/613. Composition. 2 cr. Twentieth century compositional techniques with projects in multisectional forms for large ensembles. Prereq: 211 or cons instr.
414/614. Composition. 2 cr. Twentieth century compositional techniques with projects in improvisation and experimental media. Prereq: 211 or cons instr.
415/615. Band Arranging Techniques. 2 cr . Special attention to arranging needs of high school wind ensembles with particular emphasis on production numbers, solo backgrounds, small ensembles, and accompaniments.
416/616. Choral Arranging Techniques. 2 cr. Arranging for standard adult and adolescent choral groups, in the popular and serious idioms, with special attention to the needs of high school and specialty organizations. Prereq: Open only to music majors; or cons instr.
417/617. Advanced Jazz Arranging Techniques. 2 cr . Continuation of 217 ; jazz and commercial arrranging styles for professional jazz ensembles and studio orchestras, with opportunities for performance by university ensembles. Prereq: 217 or cons instr.
420/620. Piano Literature 1. 3 cr. Keyboard literature from 1700 to 1825 with emphasis on major composers and their contributions to this field.
421/621. Piano Literature 11. 3 cr. Same as 420 , covering the period from 1825 to the present.

422/622. Voice Literature I. 3 cr . Study of vocal literature from 1500 to 1825 ; designed to broaden the student's performing and teaching repertoire, including the study of program building.
$423 / 623$. Voice Literature II. 3 cr . Same as 422/622, covering the period 1825 to the present.
424/624. History and Literature of Wind Ensemble Music.
2 cr . History of the development of wind instruments and their literature, with emphasis on composers from Mozart to the present.
426/626. Chamber Music. 3 cr . Survey of chamber music, with emphasis on literature of the string quartet and other instrumental chamber ensembles. GDR:HU1
427/627. Symphonic Music. 3 cr. Survey of symphonic music, with emphasis on literature of the symphony and symphonic program music. GDR:HU1
428/628(NW). Music Cultures of the Pacific, the Near East, and Asia. 3 cr. Basic kinds of music and musical instruments found in the major oriental civilizations and in the island cultures of the Eastern Hemisphere. GDR:HU1.
429/629. Piano Chamber Ensemble. 1 cr. Study and performance of chamber music. The student will be assigned to a member of the piano faculty and will have weekly coaching sessions; performance in a student recital. Required for the applied piano degree. Prereq: Cons instr.
430-439/630-639. Fourth Year Small Ensembles. Each 1 cr. May be repeated once for credit. Prereq: Cons instr.

430/630-Vocal; 431/631-String; 432/632-Flute;
433/633-Clarinet; 434/634-Saxophone;
435/635-Mixed Woodwinds; 436/636-Low Brass;
437/637-Mixed Brass; 438/638-Percussion;
439/639-Jazz Band.
459-479. Fourth Year of Applied Music. (Same description as 359-379, with a "4-" designation.) Prereq: 359-759 and cons chair.
482/682. Applied Project in Commercial Music. 4 cr. Composition or arrangement of a major work or project in the area of commercial music, such as television, film, or radio production, theatre revue, concert, etc. Prereq: 417 and approval of project by instructor.
483. Music Literature Internship. 1 cr . Student assistance in music literature or appreciation courses; preparation of lecture/demonstrations under faculty guidance. May be repeated once for credit.
491/691. Piano Pedagogy. 2 cr. Effective skills in private and class piano, with discussion and performance of piano literature; observation of class and private instruction. Prereq: Piano proficiency Level IV.
492. Voice Pedagogy. 2 cr . Vocal teaching methods; observation of class and private instruction. Prereq: Voice proficiency Level IV.
493. Woodwind Pedagogy. 2 cr . Methods of teaching woodwind instruments with special attention to specific problems of each instrument.
494. Brass Pedagogy. 2 cr . Methods of teaching brass instruments with special attention to specific problems of each instrument.
495. Percussion Pedagogy. 2 cr . Literature and reference material covering the field of percussion, including various method books, textbooks, and publisher sources. Prereq: Percussion proficiency Level IV.
496. String Pedagogy. 2 cr . Techniques employed by master string teachers of the past and present, including
literature and music available for string instruction at all levels, in both private and class situations. Prereq: Performance Level IV, and/or cons instr.
499. Special Work. Upperclass students majoring or minoring in music, or those working toward a bachelor of music degree, may, by agreement with the chair, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project in theory, conducting, composition, orchestration, or music history.
711. Theory. 3 cr . Structure and materials of music, in which analysis is related to the performance and interpretation of music; musical materials drawn from small forms, 1650-1900.
712. Form and Analysis. 3 cr . Musical forms from all periods, with emphasis on structural analysis.
722. Mass, Motet, Cantata. 2 cr. Major choral forms; their beginnings and development with careful evaluation of representative works.
760-781. Artist Course in Applied Music. Each 2 cr. Opportunity for the gifted student to expand repertoire and develop musicianship.

760-Piano; 761-Organ; 762-Voice; 763-Violin;
764-Viola; 765—Violoncello; 766-Double Bass;
767-Flute; 768-Oboe; 769-Clarinet; 770-Bassoon;
771-Saxophone; 772-Trumpet; 773-Horn;
774-Trombone; 775-Baritone; 776-Tuba;
777-Percussion; 778-Harp; 779-Composition;
780-Classical Guitar; 781-Jazz Guitar.
796. Independent Study. 1-3 cr. Planned study designed to enrich and supplement the student's preparation in the area of specialization.

## Courses in Music Education

201. Introduction to Music Education. 1 cr . Introduction to the philosophy of music education. Two hrs per wk includes observation and participation in public school music classes. Prereq: Music 110, 112.
202. Elementary Methods: General Music. 2 cr . Theory and application of general music teaching skills in the primary and intermediate grades; classroom observations. Prereq: 201 or cons instr.
203. Music Teaching Techniques in the Elementary School: Instrumental. 2 cr . Theory and application of effective instrumental teaching skills in the primary and intermediate grades, and their relation to public school music and general curriculum; classroom observation. Prereq: 201 or cons instr; open only to music majors an minors.
204. Secondary Methods: Choral. 2 cr. Methods, materials, and curricular organization of choral music in the junior and senior high schools, and appropriate teaching and rehearsal strategies. Prereq: 201 or cons instr; open only to music majors and minors.
205. Music Teaching Techniques in the Secondary School: Instrumental. 2 cr . Methods, materials, and curricular organization of instrumental music in the high school, and its teaching strategies. Prereq: 201 or cons instr; open only to music majors and minors.
206. Music in the Elementary School. 3 cr . Techniques and theory of effective teaching skills in the primary and intermediate grades, including the fundamentals of music as applicable to each grade as studied; aims and content of public school music in relation to general curriculum. Not
to be counted toward a music major or minor. Prereq: Music 109, 149, or 159; OR pass a basic musicianship competency test. (See statement under bachelor of science degree in elementary education.) ${ }^{* *}$
207. Secondary Methods: General Music, 2 cr. Theory and application of general music teaching skills in the secondary school; objectives, materials, planning, and testing. Prereq. 201 or cons instr.
383/583. Music Education Workshop. $1-3 \mathrm{cr}$. Materials, methods, and curricular developments in music education and performance pedagogy. A subtitle will be added each time the course is offered. Prereq. (May be stated for each subtitle.)
384/584. Pedagogy of Suzuki Talent Education. 2 cr. Foundations of the Suzuki Talent Education philosophy and system examined as a practical approach to developing musical ability in children; emphasis on the teaching skills necessary for establishing a learning environment, discussion, observations, and a variety of audiovisual materials used, but individual music performance is not required.
385/585. Suzuki Workshop I. 2 cr. (Section 1, violin; Section 2, piano.) Techniques and practical applications of Suzuki repertoire and materials beginning at the most elementary level; individual performance and observation of children is required. Prereq: $384 / 584$ or cons instr. (May be registered with the SAA.)
386/586. Suzuki Workshop II. 2 cr (Section 1, violin; Section 2, piano.) Practical application of techniques and repertoire used in implementing the Suzuki method with emphasis beyond the elementary level, individual performance and observation of children is required. Prereq: $385 / 585$ or cons instr. (May be registered with the SAA.)
387/587. Survey of Suzuki Talent Education, 2 cr . (Section 1-Level 1, may be repeated once for credit; Section 2 Level II; Section 3-Level III; Section 4-Level IV; Section 5-Level V; Section 6-Level VI; Section 7-Level VII; Section 8-Level VIII) Study of Suzuki Talent Education philosophy and repertoire with emphasis on the practical applications to teaching at designated levels including actual performance at designated levels and observation of children. (May be registered with the SAA.)

## 389/589. Principles of Adult and Continuing Music

Education. 2 cr. Needs and characteristics of adult learners in music; strategies for development of learning and performance enterprises in community settings. Prereq: 201 or cons instr.
390. Music for Exceptional Children. 2 cr . Ways in which music can be used with children who are mentally retarded, emotionally disturbed, learning disabled, or gifted, or who have visual, hearing, speech, or motor impairments; techniques and materials. Prereq- 323; Education $351 / 551$.
424/624. Survey of Choral Literature. 2 cr. Selection and reading of solo and ensemble literature for the junior and senior high school student; for the experienced teacher.
425/625. Survey of Instrumental Literature. 2 cr. Selection and reading of solo and ensemble literature for the junior and senior high school student; for the experienced teacher.
427/627. Workshop in Jazz Pedagogy. 2 cr. Jazz teaching methods with emphasis on techniques in elementary and secondary education.
465/605. Literature of Suzuki Talent Education I. 3 cr. (Section 1, violin, Section 2, piano.) Survey of Suzuki
performance and teaching literature, with emphasis on graded performance and technical materials; leads to advanced level training, and the ability to demonstrate musical and technical concepts is required. Prereq. $385 / 585$ or cons instr. (May be registered with the SAA.)
466/666. Literature of Suzuki Talent Education II. 3 cr. (Section 1, violin, Section 2, piano.) Continuation of 465/665. Prereq: $465 / 665$ or cons instr. (May be registered with the SAA.)
485/685. Band Pageantry. 2 cr. Marching and formation techniques for the street, parade, and the sport event.
486/686. Theory and Practice of Instrumental Repair, Adjustment, Tuning, and Maintenance. 2 cr . Beginning and intermediate work with use of tools for woodwind, brass, and percussion.
487/687. Theory and Practice of Piano Tuning and Repair. 2 cr . Introduction to piano maintenance with emphasis on practical experience in tuning, regulating, and repairing.
710. Theory for Junior and Senior High Schools. 3 cr. Latest teaching approaches for music theory including teaching machines, tape machine learning, programmed learning, and research applications, laboratory and reading projects.
723. Music Literature for Junior and Senior Migh Schools. 3 cr . Selection and presentation of classic and modern literature for young people, styles and form and their implications for teaching.
750-759. Pedagogical Techniques for Music Teachers. Each 2 cr . Designed to assist the experienced teacher.

750-Piano; 751-Voice; 752-Violin; 753-Low Strings, 754 -Flute, 755 -Double Reeds, 756 - Clarinet;
757-Trumpet; 758-Low Brass; 759-Percussion.
781. New Developments in Elementary Music. 3 cr . An eclectic approach to examining new developments in elementary music; including Kodaly and Orff approaches.
783. Problems in Curriculum and Supervision. 3 cr . Working with curriculum as it relates to a total school program; for the experienced teacher.
784. Rehearsal Techniques, Choral. 3 cr. Problems related to the organization and preparation of ensembles with particular emphasis on techniques of the rehearsal.
785. Rehearsal Techniques: Instrumental. 3 cr, Problems related to the organization and preparation of ensembles with particular emphasis on techniques of the rehearsal.
786. Seminar in Music Education 1. 3 cr. Aesthetic and philosophical foundations of music education, emphasis on current trends in educational thought and their implications for music education.
787. Seminar in Music Education II, 3 cr. Psychological foundations of music education, emphasis on the development of teaching objectives and current trends in methodology.
788. Seminar in Music Education III. 3 cr. Aesthetics, philosóphical, and practical foundations of Suzuki Talent Education, its techniques and teaching objectives.
789. Seminar in Music Education IV. 3 cr. Techniques and materials of individual or small-group instruction, with applications for the private studio teacher. A subtitle will be added for each specific area.
790. Seminar in Music Education V. 3 cr. Techniques and materials of individual and group instruction, with applications for the jazz educator. A subtitle will be added for each specific area.
797. Performance, Methods, and Materials. 2 cr.
798. Residency. $1-6 \mathrm{cr}$. Observation and teaching under guidance from cooperating teachers in actual classroom situations. May be repeated once for a maximum of 12 cr . 799. Thesis. 2-6 cr.

## MUSIC LITERATURE

See Music.

## NATURAL RESOURCES, College of

Daniel O. Trainer, Dean
Richard Wilke, Associate Dean
Susan Coe and Christine Thomas, Senior Administrative Specialists
Room 136, College of Natural Resources Building Phone: (715) 346-4617 or -2853
The College of Natural Resources offers degrees in forestry, paper science, resource management, soils, water, and wildlife. These courses are described under the appropriate headings in the following pages.
Majors and/or minors are offered in camp and youth agency administration and programming, environmental communication, environmental education/intepretation, environmental law enforcement, forestry, forest recreation, land use planning, outdoor education, resource management, soil science, water resources, and wildlife. Students in any of these majors must meet the general degree requirements, which are stated in an earlier section of this catalog. In addition:

1. In order to be prepared to take most of the courses numbered 300 and above in the College of Natural Resources, you will need to complete the introductory courses in resource management, forestry, soils, water, and wildlife, as well as the summer camp courses before the beginning of your junior year.
2. The courses you take to fulfill a specific major or minor must be approved by an adviser in that discipline before you graduate. Therefore, it is imperative that you work with an adviser when choosing your course sequence.
3. Courses required in a major or minor may not be taken on a pass-fail option.
To be accepted and retained as a major or minor and to be approved for graduation, you must have a minimum grade point average of 2.00 in all courses taken within the major or minor ( 2.75 to student teach in resource management) ( 2.25 in wildlife and forestry), including collateral courses, regardless of a declaration of academic bankruptcy. The associate dean may allow exceptions on a conditional basis.
The Master of Science Degree - Natural Resources is described earlier in this catalog in the section on The Graduate School.
Camp and Youth Agency Administration and Programming Minor
The minor consists of 25 credits directed at the principles and practices of program planning, administration, and environmental education within youth agencies and camps.
4. Required courses, 13 credits: Natural Resources 300 or 370, 376, 382, 383.
5. Twelve credits from the following areas: Psychology .260, 315, or Sociology 226, 261, 315; Recreation 141 (See adviser for other options in recreation).
6. Internship experience is recommended. See your adviser.

## Environmental Communication Minor

This minor is open only to majors within the College of Natural Resources. It consists of 24 credits:

1. Required core courses, 9 credits: Natural Resources 320, 368 , and 369.
2. Fifteen credits distributed as follows: 3-6 credits from Communication 211, 217; 9-12 credits from Communication 252, 322, 330, 340, 342, 361, 365, 391, 394; English 354; Instructional Resources 231, 331, 332, 362.

## Environmental Education/Interpretation Minor <br> Consists of 25 credits. It is open only to majors in the

 College of Natural Resources and the Department of Biology. (Others may request special permission from the dean of the College of Natural Resources.)1. Required courses, $\mathbf{1 6}$ credits: Natural Resources 300, 368, 369, 376, 478. If you are not majoring in the College of Natural Resources, you must also take Natural Resources 370.
2. Six to 9 elective credits from field courses selected in consultation with the coordinator of the environmental education/interpretation minor.

## Environmental Law Enforcement Minor

This minor is available to all majors in the College of Natural Resources, and to others with the approval of the dean of the college. It provides a law enforcement background for students majoring in the College of Natural Resources.
The minor consists of 22 credits: Natural Resources 393 (3 credits), 440, and 473; Physical Education 252; Sociology 230 (101 or 102 is prereq); and three courses from Philosophy 315, 380, Political Science 212, 313.

## Environmental Studies Minor

This minor is administered by the College of Letters and Science. See description earlier in this catalog.


## FORESTRY

Robert W. Miller, Coordinator
Room 326, College of Natural Resources Building Phone: (715) 346-4189
Faculty: Abrams, Cravens, R. Engelhard, Geesey, Hauge, Houghton, James E. Johnson, Koonce, Lee, Robert
Rogers, Schabel, E. Spangenberg.

## Objectives of the Forestry Program:

1. To provide a sound undergraduate program of forestry education. The core of required forestry courses is based on standards for professional training established by the Society of American Foresters. Our program adds flexibility to help meet your professional objectives through the selection of collateral courses and specialized training.
2. To support and enhance the other majors in the College of Natural Resources and other academic programs of the university. The philosophy of the College of Natural Resources emphasizes the oneness of the environment. To that end all majors in the college require training in forestry, soils, water, and wildlife. You can combine minors or concentrations in these other disciplines with your forestry major to enhance your qualifications as a forestry professional.
3. To pursue new knowledge. Reasearch is the basis of the graduate program. Research primarily in areas of applied forestry is allied to the undergraduate program.
4. To apply contemporary forestry knowledge through continuing education and extension. The forestry program serves as a center for the exchange of knowledge through sponsorship of symposia, workshops, and seminars on contemporary subjects for forestry professionals and forest landowners.
5. To develop professionalism and an esprit de corps among students, alumni, and faculty. The faculty encourages continuing participation in professional and university activities by coordinating activities with the Society of American Foresters, the student chapter, local chapters, sections of the society, and the university alumni association.
To be admitted as a forestry major, you must petition the forestry faculty after you have completed 45 or more credits at this or any other accredited university.
Preliminary admission to the forestry major and permission to take 300-400 level forestry courses (except Forestry 320 and 325) is granted if you have earned at least a 2.25 grade point average in the forestry major.

Final admission to the forestry major is based on the above minimum grade point averages computed after you complete Forestry 320.
Your enrollment in $300-400$ level forestry courses (except Forestry 325 ) will be withdrawn until you satisfy the minimum 2.25 grade point requirement after completing Forestry 320 (or NR 475).

## Forestry Major

1. Major study and approved electives to total 130 credits in addition to the required physical education (total: 134 credits).
2. Required courses, 39 credits: Forestry $120,221,321$ (or Mathematics 355), 322, 332, 425, 426, 432, Natural Resources 170, 372; Soils 260; Water 180; Wildlife 140.
3. Six credits of summer camp courses. Forestry 320, Soils 360, Wildlife 340, Water 380.
4. Collateral courses: Biology 130,160 ; Chemistry 105 or 115; Mathematics $100,106,116,117$.
5. Completion of one of the four following collateral emphases:

## a. Forest Management

1) Forestry 328; Natural Resources 377; Biology 351; Chemistry 106 or 116 ; Economics 210 ; and Computer Information Systems 110, 112, or Mathematics 315 .
2) Twelve credits selected from the following electives: Forestry $227,324,325,329,330,331$, $333,350,385,394,424,429,434,440,480,493$; Natural Resources 171, 320, 371, 473, 474, 490; Paper Science 101; Soils 361; Water 389, 493; Wildlife 451.
b. Forest Administration
3) Forestry 328 ; Natural Resources 377 ; Economics 210 and one of the following: Economics 311*, 315* $360,365^{*}, 372$, or 453*; Computer Information Systems 110 or 112 or Mathematics 315. ( ${ }^{*}$ Completion of Economics 210 and Natural Resources 372 satisfies the prerequisites for these courses.)
4) Twelve credits selected from the following electives: Forestry $227,324,325,329,330,331$, $333,350,385,394,424,429,434,440,480,493$; Natural Resources 171, 320, 371, 473, 474, 490; Paper Science 101; Soils 361; Water 389, 493; Wildlife 451.
At least 12 credits from b3. and b4, below, distributed as follows:
5) Three to 6 credits from: Communication 211,217 , $230,272,330,336,340,365,383,385$; English 251.
6) Six to 9 credits from: Business $330,340,350,360$, $380,384,385$, additional economics course selected from those listed in bI.; Political Science $250,308,320,351,354,356,358$; Psychology 345; Sociology 311, 312, 315, 356, 359 .
If you wish to complete a minor in business administration, you may substitute Natural Resources 372 for Economics 211. If you wish to complete a minor in economics, you may substitute Natural Resources 372 for Economics 211 and Forestry 321 or Mathematics 355 for Economics 310.)
c. Urban Forestry
7) Forestry $227,331,333,424$, Natural Resources 368; and 6 credits selected from: Forestry 324, 385; Wildlife 454; Biology 344, 346; Natural Resources 374.
8) Biology 351, Chemistry 106 or 116 , Economics 210; Computer Information Systems 101, 102, or 110 , or 112 .
d. Forest Recreation
9) Forestry $227,324,330,331$ or $333,385,394,480$; Natural Resources 320,367 or 368 and 369.
10) Three credits from Natural Resources 393,440 , 473, or any $300-400$-level wildlife courses.
11) Geography 101 or Geology 104; Computer Information Systems 101 and 102, or 110.

## Forest Recreation Minor

## Consists of 27 or 29 credits:

1. Forestry $227,324,330,331,394$ ( 1 or 2 cr ), 480 ; Natural Resources 367 or 368 and 369.
2. Six credits from the following: Forestry $221,332,333$, 385, 493; Natural Resources 320,393 or 473,474 ;

Wildlife (any 300-400-level course approved by your adviser).

## Forestry Minor

Consists of 22 credits:

1. Forestry $120,332,422,425,432$.
2. Eight credits from Forestry 221, 227, 320, 324, 325, 328, 426, 493; Natural Resources 372; Soils 361.

## Forestry Transfer Students

If you are transferring here from an accredited institution to pursue a degree in forestry, you must complete at least 21 credits of 300 - and 400 -level UW-Stevens Point forestry courses.

## Courses in Forestry

120. Introduction to Forestry. 3 cr . Introduction to the forest resources of the United States with special emphasis on the role of forestry in historic and current events; elementary mensuration; management techniques. Two hrs lec, two hrs lab per week. (I, II)
121. Dendrology. 3 cr . Identification, classification, distribution, and economic importance of the principal forest trees of the United States. Two hrs lec, two hrs lab per wk. Prereq: 120 or cons instr. (II)
122. Recreational Use of Forests and Parks. 3 cr. Survey of recreational use of forest environments; role of federal, state, and local government agencies in forest recreation; environmental impact of forest recreation; and principles of management and planning. Prereq: So st. (I, II)

## 320. Field Experience in Forest Measurement and

Surveying. 1.5 cr . Application of forest measurement and surveying techniques and forest ecological relationships for integrated resource management. Prereq: 120. (SS)
321. Forest Biometry. 4 cr. Applied mathematical and statistical methods used to solve forestry problems. Three hrs lec, two hrs lab per wk. Credit may not be earned in Math 355 and Forestry 321. Prereq: Math 100.
322/522. Forest Mensuration. 3 cr . Measurement of forest stands, products, and growth, including the construction and use of appropriate instruments, tables, and surveys. Two hrs lec, three hrs lab per wk. Prereq: Mathematics 355 or Forestry 321. (I, II)
324/524. Forest Protection I: Abiotic Agents. 2 or 3 cr. Analysis of nonliving agents, such as forest fires, air pollutants, weather phenomena, and soil condition, and the damage they do to trees; principals of detection, prevention, and control. Prereq: 120 or cons instr. (II)
325/525. Range Management. 3 cr . Technical study of sustained yield management practices applicable to rangelands with consideration of proper stocking and grazing systems and methods of range surveying. Prereq: Biology 130; Soils 260 or cons instr. (II)
328/528. Wood Technology. 3 cr. Structure of wood; identification of native woods by microscopic and macroscopic features; physical and chemical properties; uses. Two hrs lee, two hrs lab per wk. Prereq: Summer Camp or cons instr.(I, II)
329/529. Harvesting Systems. 2 cr. North American tree harvesting systems: felling, limbing, bucking, forwarding, loading and hauling, analysis of safety procedures, equipment selection and maintenance, environmental implications, and cost determinations. Prereq: Summer Camp or cons instr. (I)
330/530. Forest Recreation Planning and Site Design. 3 cr .

Analysis of the principles and practice of forest recreation planning; emphasis on the planning practices of federal and state recreation agencies, on the development of master plans for parks, and on-site planning procedures. Prereq: 227 or cons instr. (II)
331/531. Landscape Maintenance/Arboriculture. 3 cr. Principles and practice of tree, shrub, and turf establishment and maintenance; use and maintenance of landscape equipment and facilities. (I)
$332 / 532$. Silvics. 3 cr . Ecological foundations of silviculture with reference to forest site factors; influence of forest on the environment; growth and development of trees and stands; origin, development, and classification of forest communities. Two hrs lec, three hrs lab per wk. Prereq: 221, 320; or cons instr. (I)
333/533. Urban Forestry, 3 cr . Management of trees and other vegetation in metropolitan areas to enhance the urban environment. Prereq: 221 or cons instr. (I, II)
350/550. Contemporary Issues in Forestry. 1.3 cr. (A maximum of 3 credits to count toward graduation.) Issues of current interest likely to influence forestry in the future. A subtitle will be added to describe the topic covered. May be repeated for credit under different subtitles. GDR:TCI BA BS
381/581. Internship in Forestry, 1-12 cr. Supervised training program in forestry, coordinated by the faculty of the College of Natural Resources in cooperation with private or public resource agency professionals. One cr for 2-4 wks, ( 40 hrs per wk) of work, with more rigorous internships receiving more credits. Additional requirements will be determined before registration. Credit will be determined by instructor. May be repeated one time, but no more than 12 credits will be allowed. Prereq: Forestry 320, Wildlife 340, Soils 360 , and Water 380 ; or Natural Resources 475; and/or cons intern director. (I, II, SS)
385. Applied Landscape Architecture. 3 cr . Principles of design, landscape assessment, and graphic techniques as applied to urban and rural forested landscapes. Prereq: Summer Camp or cons instr. (II)
394/594. Forest Recreation Seminar. 1 or 2 cr. Field observation and study of recreation planning and management problems and practices, at federal, state, and other recreation areas outside this geographical region. Prereq: 227 or cons instr. (II)
424/624. Forest Protection II: Pathology. 3 cr. Identification, ecology, and control of forest and shade tree diseases and decay. Two hrs lec, three hrs lab per wk. Prereq: 221; Biology 130. (I)
425/625. Forest Management and Finance. 3 cr . Principles of organizing and regulating forest properties; valuation and investment analysis. Two hrs lec, two hrs lab per wk. Prereq: 322, 432; or cons instr. (I, II)
426/626. Forest Protection III; Entomology. 3 cr. Identification, ecology, and control of important forest, shade tree, and structural insects, with emphasis on principles of integrated control. Two hrs lec, three hrs lab per week. Prereq: 221; Biology 160; Summer Camp or cons instr. (I, II)
429/629. Forest Products. 2 cr. Source, character, and methods of manufacture of natural and derived forest products. Prereq: 328 or cons instr. (II)
432/632. Silviculture. 3 cr . Principles governing establishment, treatment, and control of forest stands; natural and artificial regeneration systems; intermediate
cuttings, and cultural operations with emphasis on the principal forest types of temperate North America. Two hrs lec, three hrs lab per wk. Prereq: 320, 322, 332. (II)
434/634. Field Practices in Silviculture. 3 cr. Field techniques in silviculture, including practices in intermediate treatments of forest stands, forest regeneration techniques, and silvicultural management of forest stands. Prereq: 432. (SS)
440/640. Forest Tree Improvement. 3 cr. Distribution of genetic variation in forest tree populations; introduction, selection, progeny testing, species hybridization, and polyploidy to obtain superior tree populations. Prereq: 221 or cons instr. (II)
480/680. Forest Recreation Management. 3 cr, Formulation of recreation management objectives, determination of user preferences and satisfaction, analysis of ecological impacts and facility requirements of forest recreation use. Prereq: Summer Camp; Forestry 227, 330; or cons instr. (I)
493/693. Forestry Field Seminar, 1 or 2 cr. (For 1 credit, the course will be taken on a Pass-Fail basis; for 2 credits, the completion of a comprehensive report on the field experiences is required.) Spring vacation tour through the areas selected for intensive forest management and research facilities differing from those available in the upper Midwest; observation of silvicultural practices, managerial programs, and wood utilization techniques. Prereq, Cons instr. (II)
499. Special Work. Upperclass students in forestry may, by agreement with the Assistant to the Dean of the College of Natural Resources, arrange for special out-of-class work for which credit may be allowed on the basis of 1 credit for every week, or its equivalent, devoted exclusively to a special project. (I, II)
730. Tree Physiology. 4 cr. The principle physiological
processes of trees including synthesis and use of foods, and growth phenomena. Prereq. Biology 351 and Chemistry 220 or equiv. (On demand)

## International Resource Management Minor

For CNR majors, consists of 22 credits:

1. Required courses:
a. Natural Resources 323 and one of the following: Nátural Resources 381 or 475 or study abroad in a non-English-speaking country.
b. Completion of one foreign language course beyond the second semester (102) college level.
c. Anthropology 370 or Sociology 327; Economics 365; Geography 113 or 120 .
2. Three credits from: Anthropology $312,335,360$, Asian Studies 101, Business 480, Communication 336, 341 , Economics 362, 367, Geography 300, 301, 327, 328, 340, 368; History 220; Latin American Studies 100, 423; Natural Resources 300, 478; Philosophy 380; Political Science 317, 380, 382; Psychology 240, 321.
3. Non-CNR majors are also required to take: Natural Resources 370 and two of the following: Forestry 120, Soils 260, Water 180 , Wildlife 140.

## Land Use Planning Minor <br> Consists of 24 credits:

1. Nine credits from Natural Resources $474,480,484,495$.
2. Soils 365 and Geography 276 or Geography 377 (or Natural Resources 377).
3. Three credits from Political Science 242, 304, 341, Sociology 300, 356, 357.
4. Six credits (if 24 credits are not achieved from 1,2, and 3 above) from Forestry $330,333,385$; Geography 379; Natural Resources $320,372,380,473,478 ; 477,491$; Political Science 250, 397; Sociology 358; Water 382; Wildlife 450.


## NATURAL RESOURCES

The major in resource management is described under that heading later in this section.

## Courses in Natural Resources

100. Natural Resource Careers Workshop. 1 cr. A resident workshop at the Central Wisconsin Environmental Station exploring concepts and careers in soil, water and fisheries; wildlife, forestry, paper science, environmental education, and recreation; presentations by resource specialists in each area. (SS).
101. Environmental Management for Homeowners. 2 cr. Water supply and quality; home and garden management; urban wildlife and forestry; waste disposal; energy conservation, landscaping, and air quality will be covered on a practical yet economically and environmentally sound basis.
102. Introduction to Natural Resources. 1 cr. The integrated management of natural resources and their role in man's natural, social, and economic welfare. Open to all students. (I, II) GDR:SS2
103. Elementary Surveying. 3 cr . Use of the tape, compass, level, and transit; U.S. land system; simple maps, traverse closure, and area computations; profiles, stadia plane table. One hr lec, six hrs lab per wk. Prereq: Mathematics 100 or equivalent training in trigonometry. (I)
104. Safety Instructor Certification. 1 cr . Preparation of qualified instructors to teach courses in boating, hunter, and snowmobile safety as prescribed by the State Department of Natural Resources; ethics and public controversies relative to these areas. Each time the course is offered a subtitle indicating the area of certification will be added. May be repeated under different subtitles for a maximum of 3 credits. Credit may not be earned in both Physical Education 278 and Natural Resources 210. Prereq: So st. (II)
300/500. Foundations of Environmental Education. 3 cr. Conceptual and philosophical basis for environmental education; analysis of instructional materials; strategies for developing and implementing environmental education programs. Prereq: Biology 305. (I)
105. Environmental Education Teaching Methods. 1 cr. Strategies for teaching K-12 students about the environment. Environmental issues and resolving environmental problems will be introduced and experienced. Effective educational methodology will be stressed. Meets DPI certification requirement in environmental education in conjunction with Geography 339 from UWEX (correspondence).
320/520. Natural Resources and Public Relations. 3 cr. Preparation of natural resources specialists for involvement with various publics, including governmental agencies, boards, and committees, professional associations, and environmental societies; identification of public relations techniques and methods of evaluating public input as used by resource professionals. Prereq: Cons instr. (I) GDR:TCI BA BS
106. International Resource Management. 3 cr . Status and trends concerning the world's renewable natural resources with emphasis on ecological, socioeconomic and other factors influencing their management; role of natural resources in developing countries and international efforts devoted to their safeguarding and amelioration. One third of course time spent as seminar focusing on specific
resource issues, countries or regions of the world. Prereq: 370 for non-CNR majors.
107. Turf Management. 2 cr. Selection, establishment and' management of turf grasses for parks, lawns and other recreational land uses. One hr lec, two hrs lab. Prereq: Summer camp and/or cons instr.
108. Air Resources. 3 cr . Air chemical composition and reactions, air mass movement, contaminant transport, and meteorology. Air monitoring. Social and economic implications of air resource management technology.
367/567. Park Interpretation. 4 cr. Skills for interpreting a park or other recreational site to visitors. Practice in interpretive talks; design and construction of park signs, trails, publications, visitor facilities; field trips to area park interpretation centers. Three hrs lec and 2 hrs lab/field work per wk.
368/568. Environmental Interpretation I. 3 cr. Principles and verbal techniques to relate the values of natural history and cultural features to visitors at parks, recreation areas, museums, and other institutions; walks, talks, and programming. (I)
369/569. Environmental Interpretation II. 3 cr. Nonverbal techniques to relate the values of natural history and cultural features to visitors at parks, recreation areas, museums, and other institutions; writing, signs, trails exhibits, slide-tape programs, and interpretive planning; field trips to area interpretation centers. Prereq: 368/568. (II)

370/570. Introduction to Environmental Study. 3 cr. Natural, social, and economic factors influencing the quality of man's environment; ecological relationships and. principles and their relation to population growth, pollution, resource allocation and depletion, conservation, technology, and urban and rural planning. Fulfills the requirement for those who need a conservation course. Not open to majors or minors in the College of Natural Resources. (I, II) GDR:TCI BA BS
371/571. Resource Administration. 2 cr. Administrative principles and organizational structure of private, local, state, and federal resource agencies. (I)
372/572. Resource Economics. 3 cr. Fundamental economics concepts and their application to resource use; traditional and revised theories of land use; problems of land policy management. (I, II) GDR:SS2
373/573. Agronomy. 3 cr . Grain and forage crops, with emphasis on management practices. Two hrs lec, two hrs lab per wk. Prereq: Summer Camp or cons instr. Purchase of a laboratory manual is required. (I)
374. Environmental Interpretation Practicum. 3 cr . A practical experience in environmental programming for nature center and park visitors. Experience with planning and implementing interpretation programs, facilities, signage, exhibits, and publications. Practicum location is the Schmeeckle Reserve. One six-hour day per week. Prereq: 367 or 368 and 369 , or con reg.
375/575. Environmental Field Studies. 3 cr. Environmental and natural history study as a background to the use of the outdoors as a teaching laboratory. One hr lec, four hrs lab per wk. Not open to majors or minors in the College of Natural Resources. (SS)
376. Environmental Education Practicum. 4 cr. Practical experience in environmental education with K-12 school students. Emphasizes program and staff development,
program planning, instruction and evaluation. One full day per week. Prereq: 300,368 , or con reg. (I, II)
377/577. Air Photo Interpretation. 3 cr. Introduction to the use of airphotos and airphoto interpretation to inventory forest, soil, water, and wildlife resources; to identify and evaluate indicators of pollution and related evidences of environment degradation. Two hrs lec, two hrs lab per wk. Credit may not be earned in both Natural Resources 377 and Geography 377. (I, II)
378. Introduction to Minerals Technology. 3 cr. Survey of the extractive and processing systems used in the mining, mineral dressing, and metallurgical industries. Prereq: Chemistry 105 or 115 ; Geology 104. (On demand)
380/580. Solid and Hazardous Waste Management. 3 cr . Characterization, collection, recycling/disposal of municipal, industrial, and agricultural wastes, with emphasis on the environmental effects related to disposal. Two hrs lec, two hrs lab per wk. Prereq: Summer Camp or cons instr. (I)
381/581. Internship in Natural Resources. $1-12$ cr. Supervised training program in resource management, coordinated by the faculty of the College of Natural Resources in cooperation with private or public resource agency professionals. One cr for $2-4$ wks ( 40 hrs per wk) of work, with more rigorous internships receiving more credits. Additional requirements will be determined by instructor. May be repeated one time, but no more than 12 total credits will be allowed. Prereq: Forestry 320, Soils 360, Wildlife 340, and Water 380; and/or cons intern director. (I, H, SS)
382/582. Youth Agency Administration. 3 cr. An analysis of the historic background, development, organization, and purpose of youth agencies. An analysis of structure, programming, policy development, voluntary board development, supervisory techniques, and current and future issues confronting nonprofit youth agencies.
383/583. Nature Center and Camp Management. 3 cr. The principles and practices of the planning, organization, and administration of nature centers and youth camps. Management of day and residential facilities analyzing issues of the master planning process, public relations, staff supervision, marketing techniques, fiscal and site management.
390/590. Nature Interpretation in Central Wisconsin. 0-3 cr. Firsthand acquaintance with the major ecological communities of central Wisconsin, their relationship to landforms and climate, key plants and animals, their interrelationship and the effect of man's activities; emphasis on interpretive techniques. The course emphasis will vary seasonally. May be repeated for credit under different subtitles. If taken for 0 credit, an audit fee must be paid. (On demand)
391/591. Naturalist Training Workshop. 0-3 cr. Volunteer naturalists and youth leaders will learn how to develop and present innovative natural history programs. Techniques for trail walks and interpretive programs are emphasized in an interactive forum. If taken for 0 credit, an audit fee must be paid. May be repeated for credit under different subtitles. (On demand)

## 393. Environmental Law Enforcement, 1-3 cr.

Environmental law enforcement practices including such subject areas as search, seizure, ballistics, criminal codes, evidence collection and preservation. A subtitle will be added to the title to describe the area(s) each time the course is offered. May be repeated under different subtitles
up to a total of 3 credits. Offered in mini-session only. Prereq: Cons instr, and declared environmental law enforcement minor.
405/605. Selected Topics in Natural Resources. $1-3 \mathrm{cr}$. Major concepts and problems in an area of natural resources. Prereq: Cons instr. (I, II)
410. Selected Topics in Environmental Education. 1-3 cr. Environmental concepts and issues with an emphasis on teaching methods for K-12 teachers. Course may be repeated for credit under a different subtitle.
440/640. Environmental Law Enforcement Theory and Principles. 3 cr. Overview of environmental law enforcement activities with an emphasis on the theoretical basis for current enforcement practices. Prereq: Political Science 212, or Sociology 230, or cons instr. (I, II)
444/644. Computer Techniques in Resource Management Planning. 2-3 cr. Use of microcomputers to aid land use data storage, analysis, and retrieval. Instruction in how to prepare and present plans using electronic spreadsheets, graphics, and mapping programs. Emphasis on air, water, and land resources. Prereq: Microcomputer experience and cons instr.
473/673. Resource Policy and Law. 3 cr. Legislation and policy pertaining to natural resources with consideration given to the need for, purposes of, making of, and implementation of such laws and policy. (II)
474/674. Integrated Resource Management. 3 cr. Integrated management of resources with emphasis on combinations of principles prerequisite to the formulation and implementation of natural resources policy; special attention to current issues, problems, trends. Prereq: Forestry 120, Soils 260, Water 380, Wildlife 140. (I, I) 475/575. International Environmental Studies Seminar. 2-8 cr. Study in a selected region of the world which will survey environmental problems and programs of the area; comparisons with U.S environmental and natural resource issues. Prereq: Cons instr. (The combination of two weeks at summer camp and four weeks in Germany is an alternative to the regular six-week summer camp requirement.) (SS) See Field Seminar Program.
476. Toxic Chemicals in the Environment. 3 cr . Occurrence, detection, environmental impact, and management of toxic substances in the environment; social and economic considerations and alternatives in use and management. Prereq. Chemistry 116 or 106 .
477/577. Development of Environmental Impact
Statements. 1 cr. Laws and regulations controlling EIS development; case studies of selected statements; preparation and presentation of an EIS. (I, II)
478/678. Environmental Issues Investigation. 3 cr. Review of current regional, national, and global environmental implications; processes for investigating and resolving issues; individual issue investigation and resolution projects. GDR:TCI BA BS
480/680. Urban and Regional Planning Practice. 3 cr . History and analysis of major current problems facing public and quasi-public planning agencies; review of past, current, and possible solutions in area resource management. (II)
484/684. Implementation of Air, Water, and Land Use Plans. 3 cr. Review of natural resource planning at federal and state levels, practicalities of adoption and implementation in local communities; strategy seminar on one topic. Prereq: 474 or cons instr. (I)
490. Natural Resources Seminar. 1 cr. Individual and group investigation of current problems in conservation. Prereq: Sr st for majors or minors in natural resources. (I, II)

493/693. Environmental Field Seminar. 1 or 2 cr. Study in selected regions of the United States which will survey environmental problems and programs of the area. Prereq: Cons instr. (On demand)
495/695. Ecological Basis for Planning and Design. 3 cr. Ecological principles, relationships, and interaction between natural and man-made elements of the environment. Prereq: 474/674 or cons instr. (II)
499. Special Work. Upperclass students majoring or minoring in the College of Natural Resources, who have demonstrated above average academic ability, may, by agreement with the Assistant to the Dean of the College of Natural Resources, arrange for special independent study in their interest area, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project. (I, II)
750. Research in Environmental Education and Interpretation. 1 cr . Discussion of research methods, relevant literature, and current issues in environmental education and interpretation. May be repeated for maximum of 4 credits.
760. Grant and Proposal Development. 1 cr . Development of a systematic approach to winning grants from corporate, foundation, and governmental sources.
794. Graduate Seminar. 1 cr . Discussion of selected environmental and natural resource topics. Required of CNR graduate students every semester except when presenting a 795 seminar. (I, II)
795. Graduate Seminar. 1 cr. Student presentation and discussion of selected environmental and natural resource topics including results of student research. (I, II)
796. Independent Study. $1-3 \mathrm{cr}$. Advanced work on a specific natural resource problem. (I, II, SS)
797. Research Methods, Design and Analysis. 3 cr. Principles and methods regarding design and management of natural resources experimental investigations, statistical analysis of data, and preparation of research outlines. Prereq: Cons instr. (I)
799. Thesis. (Not on Plan B.) 2-6 cr. (I, II, SS)

## Natural Resources Field Seminar Program

The field seminar program is designed to acquaint you with research and management activities not available through campus and summer camp experiences. The program consists of extended tours of areas and facilities pertinent to the appropriate resource discipline. The following field seminar courses are described fully under the same headings in the regular course listings:
Forestry 493/693, Forestry Field Seminar, 1 or 2 cr; Natural Resources 475/675, International Environmental Studies Seminar, 2-8 cr; Natural Resources 493/693, Environmental Field Seminar, 1 or 2 cr; Soils 493/693, Soils Field Seminar, 1 or 2 cr ; Wildlife 493/693, Wildlife Field Seminar, 1 or 2 cr.

## Natural Resources Summer Camp Program

The summer camp program consists of Forestry 320, Soils 360, Water 380, and Wildlife 340, each for 1.5 credits. See the description of these courses under the appropriate heading in this section of this catalog.

## Outdoor Education Minor

Consists of 22 credits:

1. Required core courses, 12-18 credits: Biology 305; Education 350, 372; Natural Resources 376 or Education 398; Natural Resources 370, 375. NOTE: Majors and minors in the College of Natural Resources may not enroll in Natural Resources 370 or $\mathbf{3 7 5}$ for credit.
2. Electives - Select option a or b :
a. Four to 10 credits from: Art 347; Astronomy 311; Biology 342, 379; Geography 100 or 101; Physical Education 241.
b. Four to 10 credits selected by the student and approved by the dean of the College of Natural Resources.

## PAPER SCIENCE

The major in paper science, administered by the College of Natural Resources, is described under the section Paper Science later in this catalog.

## RESOURCE MANAGEMENT

Michael Gross, Coordinator
Room 126, Natural Resources Building
Phone: (715) 346-2076
Faculty: Callicott, Champeau, Coe, Duritsa, Freckmann, Gross, Hensler, Klessig, Korth, Last, McReynolds, G. Meyer, Monroe, Wilke, Zimmerman.

## Resource Management Major

1. College of Natural Resources courses, 21 credits: Forestry 120; Natural Resources 170, 474, 478, 490; Soils 260; Water 180; Wildlife 140.
2. Biology, 13 credits: $130,160,305$.
3. Summer camp courses, 6 credits: Forestry 320, Soils 360, Wildlife 340, Water 380, or 8 credits of Natural Resources 475.
4. Completion of ONE of the following collateral options: a. General resource management, 15 to 18 credits: Chemistry 105 and 106 , or 115 and 116; Geography 101 or Geology 104; Natural Resources 372.
NOTE: To prepare for a professional career, it is recommended that one or more minors be selected to accompany this option. Suggested minors include environmental communication, environmental education/interpretation, environmental law enforcement, forestry, forest recreation, soil science, water resources, wildlife.
b. Teacher certification (in secondary education: conservation), 25 credits: Chemistry 105 or 115 ; Geography 101 or Geology 104; Natural Resources 300; and 12 credits from Natural Resources 372 or Economics 204, Geography 340, History 366, Philosophy 380, Political Science 304, Sociology 260. In addition, those seeking certification must complete the professional education sequence: Education 100, $337,351,355,380,381,386$, and 398.
c. Environmental education and interpretation, 49 credits: Biology 322, 342, 377; English 363; Geology 104; Natural Resources 300, 368, 369, 374, 376; Philosophy 380; and 12 credits from Astronomy 311; Biology 307, 308, 355, 356, 357 367, 372, 374, 376, 378, 384, 385, 386, 387, 405; Forestry 332, 426; Water 481; Wildlife 353.
d. Youth programming and camp management, 59 credits: Business 380, 385; Computer Information

Systems 101, 102, (word processing or electronic spreadsheet); Forestry 227, 330; Human
Development 166, 261 ; Home Economics Education 390; Natural Resources $300,320,367,376,382,383$; Physical Education 252 or 254; Psychology 110, 315 or Sociology 225, Recreation 141, 241.
e. Land use planning, $38-42$ credits:

1) Required courses: Chemistry 105 and 106 , or 115 and 116; Geography 101 or Geology 104; Natural Resources 372, 480, 484, 495; Soils 365.
2) Nine credits from Geography 276,377 (or Natural Resources 377), 379, Natural Resources 477, 499 ( $1 * 3$ credits), Mathematics 355, Computer Information Systems ( $1-3$ credits).
3) Three credits from Forestry 330,385 , Natural Resources 320, 380, 473, Water 382.
4) Three credits from Political Science $242,304,341$, Sociology 300, 356, 357, 358.

## Resource Management Minor

Consists of 22 credits including:

1. Forestry 120 , Natural Resources 474, Soils 260, Water 180, Wildlife 140.
2. The remaining credits must be selected from courses offered by the College of Natural Resources numbered 300 and above. Those seeking teacher certification must select Natural Resources 300 and 478.

## SOIL SCIENCE

Milo Harpstead, Coordinator
Room 227, Natural Resources Building
Phone: (715) 346-4179
Faculty: Bowles, Hensler, J. Johnson, Milfred, Razvi, Shaw.

## Soil Science Major

1. Required, 30 credits: Natural Resources $170,372,490$, Forestry 120; Water 180, Wildlife 140; Soils 260, 362, 364, 461, 465.
2. Collateral courses: Biology 130, 160, 351, Chemistry 105 and 106 (or 115 and 116), 220, 248; Geology 104, and one additional 300 or 400 -level geology or physical geography course (NR 377 qualifies); Mathematics 100; Mathematics 106 or Computer Information Systems 101 or 102; Mathematics 116 and 117; Physics 201, 202.
3. Summer camp courses, 6 credits: Forestry 320, Soils 360 , Wildlife 340 , Water 380 , or 8 credits of Natural Resources 475.

## Soil Science Minor

Consists of 22 credits with at least 15 credits of soils courses:

1. Required: Soils 260,362 and at least two of the following: Soils $364,365,465$ (Forestry majors may substitute Soils 361 for one of these).
2. Select the remaining credits from: Soils 360, 361, 363, $364,365,461,465,493$, Forestry 325,332 , Geography 352, 379, Geology 200, 370; Natural Resources 373; Geography 377 or Natural Resources 377.
The soil science minor satisfies the minimum civil service requirements for soil scientist positions (classification and mapping) in federal agencies such as the Soil Conservation Service and the Forest Service. For a soil conservationist position, Natural Resources 373 is recommended.

## Courses in Soils

260. Introduction to Soil Resources. 4 cr. Origin and development of soil, with emphasis on physical, chemical, and biological properties and their relationship to soil fertility. Three hrs lec, two hrs lab per wk. Prereq. One yr high school chemistry, or Chemistry 105 or eligibility for 115. Purchase of a laboratory manual is required. (I, II) 360. Field Experience in Soil Inventory Methods. 1.5 cr . Techniques of describing, mapping, classifying, and interpreting soils for integrated resource management. Prereq: 260. (SS)
361/561. Forest Soils. 3 cr. Properties of soils in relation to silviculture and forest nursery management. Two hrs lec, two hrs lab per wk. Prereq: Summer Camp or cons instr. (I)

362/562. Soil Genesis and Morphology. 3 cr. Geologic origin, characteristics, and taxonomic grouping of soils, together with emphasis on survey methods and mapping procedures. Two hrs lec, two hrs lab per wk. Prereq: Summer Camp or cons instr. (I, II)
363/563. Soll Profile Description Writing. 2 cr. Field identification of soil layers and the preparation of official morphological descriptions of soil profiles and associated site factors. One hr lec and two hrs lab per wk. Prereq: Summer camp or cons instr.
364/564. Soil Analysis. 3 cr. Methods of determining physical and chemical properties of soils. Two hrs lec, three hrs lab per wk. Prereq; Chemistry 116 or 106 ; Summer Camp or cons instr. (1, I)
365/565. Soil Survey Interpretation for Land Use Planning. 3 cr. Use of soil surveys in making interpretations for land use allocations and in determining suitability for facilities such as roads, dwellings, and septic filter fields. Two hrs lec, two hrs lab per wk. Prereq. Summer Camp or cons instr. (I, II)
381/581. Internship in Soils. $1-12$ cr. Supervised training programs in soils management, coordinated by the faculty of the College of Natural Resources in cooperation with private or public resource agency professionals. One cr for 2-4 wks ( 40 hrs per wk) of work, with more rigorous internships receiving more credits. Additional requirements will be determined before registration. Credit will be determined by instructor. May be repeated one time, but no more than 12 total credits will be allowed. Prereq; Forestry 320, Wildlife 340, and Water 380; or Natural Resources 475; and/or cons intern director. (I, II, SS)
461/661. Soil Management. 3 cr. Principles and practices of soil conservation and soil fertility. Two hrs lec, three hrs lab per wk. Prereq: Summer Camp or cons instr. (II)
465/665. Soil Physics. 3 cr. Physical properties of soils and methods of determination, with emphasis on influences on plant growth. Two hrs lec, three hrs lab per wk. Prereq: Mathematics 100, Physics 201, Summer Camp or cons instr. (I)
493/693. Soils Field Seminar. 1 or 2 cr. For 1 credit, spring vacation tour through areas selected for soils varying from those of cool, humid zone; investigation of soil genesis and morphology, land forms, vegetative types, and soil management practices. Prereq. Cons instr. (II)
499. Special Work. Upperclass students in Soil Science may, by agreement with the Assistant to the Dean of the College of Natural Resources, arrange for special out-ofclass work for which credit may be allowed on the basis of

1 credit for each week, or its equivalent, devoted exclusively to a special project. Prereq: Summer Camp or cons instr. (I, II)
760. Advanced Forest Soils. 3 cr . Advanced topics in the relationships between soil properties and silviculture, forest hydrology, and nursery management. Prereq: 361/561 or cons instr. (On demand)
761. Advanced Soil Management. $1-3 \mathrm{cr}$. Advanced topics in principles of soil, water, plant relationships. Prereq: $461 / 661$ or cons instr. (On demand)

## 762. Advanced Soil Genesis, Mineralogy, and

Classification. 3 cr . Processes and theories of soil information; principles and systems of soil classification. Prereq: 362/562 or cons instr. (On demand)

## WATER RESOURCES

Gerald Nienke, Coordinator
Room 226, Natural Resources Building
Phone: (715) 346-4190
Faculty: Coble, Copes, J. Heaton, LeGrande, Nienke, Razvi, Roeder, Shaw, E. Spangenberg, E. Stern, Szczytko, Christine Thomas.

## Water Resources Major

Consists of 130 credits (plus 4 credits of general physical education to total: 134 credits).

1. College of Natural Resources courses, 14 credits: Natural Resources 170, 490; Water 180, 480, 481; Soils 260.
2. Collateral courses, $20-24$ credits: Chemistry 105 and 106 , or 114 and 115 and 116 , or 115 and 116 ; Computer Information Systems 101 and 102, or 110 , or 112; Mathematics 120, or 116 and 117; Physics 201 and 202.
3. Completion of ONE of the following options: a. Fisheries
1) Required, $55-56$ credits: Forestry 120 ; Wildlife 140; Geology 104; Natural Resources 372 or Economics 210; Biology 130, 160, 210, 281, 305, 374; Chemistry 220; Mathematics 355 or Psychology 300; Water 483, 484; 3 credits of Water 387 or Biology $361 ; 2$ or 3 credits from: Water 387, 482, 485, 487; Biology 338, 374, 360, 362.
2) Summer camp courses, 6 credits: Forestry 320; Soils 360, Wildlife 340; Water 380.
b. Limnology
3) Required, 55-56 credits: Forestry 120; Wildlife 140; Geology 104; Natural Resources 372 or Economics 210; Biology 130, 160, 281, 305, 360; Biology 361 or Water 387; Chemistry 220; Mathematics 355 or Psychology 300; Water 383, 389 ; and 7 . or 8 credits from two of the following: Water 382, 387, 485, 488; Biology 361, 374, 375.
4) Summer camp courses, 6 credits: Forestry 320; Soils 360; Wildlife 340; Water 380.
c. Water Chemistry
5) A chemistry minor. See list of requirements in Chemistry section earlier in this catalog.
6) Required, 32 credits: Forestry 120; Wildlife 140 ; Geology 104; Water 382 ( 1 credit), 389, 488; Natural Resources 372 or Economics 210, Biology 130, 160, 305; Water 387 or Biology 333 or 338.
7) Summer camp courses, 6 credits: Forestry 320; Soils 360; Wildlife 340; Water 380.

## d. Watershed Management

1) Required, 40 credits: Forestry 120 ; Wildlife 140 ; Geology 104; Natural Resources 372 or Economics 210; Biology 130, 160, 305; Natural Resources 377; Water 382 ( 3 credits), 389, 489, 493.
2) Summer camp courses, 6 credits: Forestry 320; Soils 360; Wildlife 340; Water 380.
3) Courses to satisfy the soils or land use planning or forestry minor; or a concentration of courses approved by the adviser.
e. Water and Wastewater Treatment
4) Required, 27 credits: Natural Resources 171, 380, and 474 or 495 or 484; Soils 365; Water 381, 382 (1 credit), 389, 482, 488, 489.
5) Collateral courses, 33 credits: Biology 101, and two courses from Biology 333, 361, 338; Water 387; Chemistry 220; Economics 210, 211, and 311 or 312; Accounting 210, and Business Administration 380 or 384.

## Water Resources Minor

Consists of 23 credits:

1. Water 180, 480, 481.
2. Other water courses, $\mathbf{7 - 1 0}$ credits.
3. Select $3-6$ credits from the following: Biology 305, 333, 338, 347, 375; Natural Resources 380, 377, 474, 477; Soils 260.

## Courses in Water

180. Introduction to Water Resources. 3 cr. Surface and subsurface water resources, their economic and social importance, control, and conservation. (I, II)
181. Reading in the Discipline. 1 cr . Designed to improve the higher-level critical reading and thinking of students in Water 180. Pass-Fail.
338/538. Algology. 3 cr. Taxonomy, morphology, and ecology of algae with emphasis on local species. Two hrs lec, 2 hrs lab per wk. Prereq: Biology 130. (Also offered as Biology 338/538.)
182. Current Issues in Water Resources. 1-3 cr.

Technological, social, and economic aspects of a current water resource issue. A subtitle will be added to describe the topics covered. May be repeated for credit under different subtitles. GDR:BA BS
380. Field Experience in Aquatic Ecosystem Evaluation. 1.5 cr. Fishery, limnological, and hydrological evaluation; lake and stream inventory and evaluation for integrated source management. Prereq: 180. (SS)
381/581. Internship in Water. $1-12 \mathrm{cr}$. Supervised training program in watershed management, fisheries, or water quality, coordinated by the faculty of the College of Natural Resources in cooperation with private or public resource agency professionals. One cr for 2-4 wks ( 40 hrs per wk) of work, with more rigorous internships receiving more credits. Additional requirements will be determined before registration. Credit will be determined by the instructor. May be repeated one time, but no more than 12 total credits will be allowed. Prereq: Forestry 320, Wildlife 340, Soils 360, Water 380; or Natural Resources 475; and/or cons intern director. (I, II)
382/582. Water Quality Management. 1 or 3 cr . (For 1 cr :) Review of federal and state water quality control legislation and the administrative rules and procedures used to implement the laws (First six wks of each semester.) (For 3 cr:) The full semester course involves study of selected
water control systems in addition to the material in the 1 cr course. (I, II)
387/587. Aquatic Insects. 3 cr. Collection and identification of lotic and lentic insects that are important in fishery and water quality evaluations. One hr lec, four hrs lab per wk. Prereq: Biology 160 or cons instr. (I)
389/589. Hydrology. 3 cr. Physical basis of surface and subsurface water occurrence and flow; measurement, analysis, and prediction of hydrologic phenomena. Two hrs lec, two hrs lab per wk. Prereq: 180 ; and basic statistics course or cons instr. (I)
480/680. Water Chemistry and Analysis. 4 cr. Study and interpretation of chemical characteristics of polluted and unpolluted waters. Two hrs lec, 4 hrs lab per wk. Prereq: Chemistry 106 or 116 , or cons instr. (1, II)
481/681. Limuology. 3 cr. Physical, chemical, and biological phenomena of freshwater communities. Prereq: Biol 305. (I, II)
482/682. Pollntion Ecology. 3 cr. Effect of physical and chemical pollution on populations of aquatic plants and animals; relationship of pollution to man, including water quality requirements for recreation, public health, agriculture, and industry. Two hrs lec, two hrs lab per wk. Prereq, 481 or cons instr. (I)
483/683. Limnology and Fisheries Methods. 2 cr. Field and laboratory techniques for the investigation of lake and stream ecosystems. Four hrs lab per wk. Prereq. 481 or con reg; and cons instr. (I)
484/684. Fisheries Management. 3 cr. Principles of management of inland waters for fish production. Prereq: 441; Biology 374; Summer Camp; or cons instr. (I)
485/685. Ecology of Freshwater Benthic Indicator Organisms. 3 cr. Factors affecting the distribution and microhabitat selection of freshwater benthos including life history events, feeding mechanisms, drift, pollution biology, nutrient spiralling, and anatomical, behavioral, and physiological adaptations. Prereq. $387 / 587$ and $481 / 681$; or Biology $361 / 561$ or cons instr.
486/686. Fish Culture. 2 cr. Principles, problems, and technique of fish culture under artificial conditions. One hr lec, two hrs lab per wk. Prereq: 481, 484, or cons instr. (On demand)
488/688. Water and Wastewater Treatment. 3 cr. A nonengineering approach to the methods of water treatment, routine laboratory testing, and protection of systems; domestic waste disposal by water carriage and nonwater carriage methods; small unit and municipal disposal methods. (II)
489/689. Groundwater Hydrology. 2 cr. Hydraulic, geologic, and chemical factors which influence the nature and management of subsurface water resources. Prereq: 389 or 589 or cons instr. (II)
492/692. Advanced Techniques of Environmental Analysis. 3 cr. Theory and application of instrumental methods used in monitoring environmental samples; laboratory quality control, sample preparation, data handling; gas and liquid chromatography, flame and flameless atomic absorption, liquid scintillation counting, autoanalyzer use. One hr lec, four hrs lab per wk. Prereq. Chemistry 248; Water 480 or Soils 364. (II)
493/693. Watershed Management. 3 cr. Detailed study of the effect of land use on water quality, yield, and timing; land management practices as water resource management
tools. Prereq: Forestry 120, Water 180, Soils 260; or cons instr. (II)
499. Special Work. 1-3 cr. Upperclass students in water resources may, by agreement with the Assistant to the Dean of the College of Natural Resources, arrange for special out-of-class work for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project. (I, II)
780. Advanced Water Analysis. 3 cr. Chemical methods and instrumental analysis of water supplies and wastewater; laboratory management for routine testing and analysis and advanced techniques for determinations of trace elements, pesticides, and other pollutants. Prereq. $480 / 680$ or equiv, and con instr. (On demand)
781. Recent Advances in Pollution Ecology. 3 cr. A reading and discussion course on recent research in pollution ecology; detailed analysis of research methods, results, interpretation of data, and evaluations of the work with respect to management of surface water supplies. Prereq: Cons instr. (On demand)
784. Advanced Studies in Fish Management. 3 cr. Survey of the literature concerned with the ecology and management of fish populations. Prereq: $481 / 681$ and $484 / 684$; or cons instr. (On demand)
786. Indicator Organisms in Pollution Biology - Plant. 3 cr. Identification of organisms which are indicative of water quality; survey of the important literature, methods of data analysis, and correlation with physical and chemical qualities. Prereq: 481/681, and Wildlife 441/641, and cons instr. (On demand)
789. Advanced Hydrology. 3 cr . Modeling and systems theory in analysis of water resources management alternatives, application of hydrologic analysis to ecological problems. Two hrs lec, two hrs lab per wk. Prereq: 389 or 489 or cons instr. (On demand)

## WILDLIFE

James Hardin, Coordinator
Room 308A, Natural Resources Building
Phone: (715) 346-4178
Faculty: R. K. Anderson, Beattie, Hardin, Payne, Post, S. Taft, Trainer, C. White.

## Wildlife Major

1. Major study and approved electives to total 130 credits in addition to required physical education (total: 134 credits).
2. College of Natural Resources courses, 26 credits: Forestry 120; Natural Resources 170, 490; Soils 260; Water 180 , Wildlife $140,350,353,355,455$.
3. Collateral courses, $61-64$ credits:
a. Biology $130,160,281,342,370,377,378,281$.
b. Chemistry 105 or 106 , or 115 and 116 ; and 220 .
c. Mathematics 100 and 106 , or 102 and 108 , or eligibility for 116, and 355 or Forestry 321; Computer Information Systems 101 and 1 credit of 102.
d. Economics 210 or 204 or Natural Resources 372.
e. Three credits from Biology 490 , Communication 211, $217,221,230,252,321,322,330,361,365,394$; English 250, 254, 354; Natural Resources 300, 320, 368.
f. Five credits from Natural Resources 371, 393, 473, 474, 480; Forestry 227; Political Science 250, 304, $308,354$.
4. Summer camp courses, 6 credits: Forestry 320, Wildlife 340, Soils 360, Water 380, or 8 credits of Natural Resources 475.
5. To be accepted and retained as a major, and to be approved for graduation, you must have a minimum grade point average of 2.25 in all courses taken within the wildlife major, including collateral courses, regardless of a declaration of academic bankruptcy. The dean of the College of Natural Resources may allow exceptions on a conditional basis.

## Wildlife Minor

Consists of 21-24 credits:

1. Wildlife $140,350,353,451$.
2. Biology 372; or two courses selected from Biology 374, 376, 377, 378.
3. The remaining credits selected from Wildlife 355,454 ; Forestry 332; Water 481; Natural Resources 320, 393, 440, 473, 474; Soils 461.

## Courses in Wildlife

41. Wildlife Forum. 0 cr. Same as 141 , except for no credit.
42. Introduction to Wildlife Ecology. 3 cr. Wildlife resources of the United States; the importance of wildlife to our past and present economic and cultural life; selected problems in wildlife conservation. (I, II)
43. Wildlife Forum. 2 cr. Environmental issues related to the maintenance of wildlife populations with emphasis on the effects of land and water use upon animals. Will not fulfill the Wildlife 140 requirement. (On demand)
305/505. Selected Topics in Wildlife Management. 1 cr. Selected concepts, practices, principles, and issues in wildlife management. May be repeated under different subtitles.
44. Wildlife and Society: Contemporary Issues. 1-3 cr. Wildlife values, needs, and population dynamics relative to past and present cultural and economic quality of life; use of wildlife as a barometer of environmental health; impacts of pesticides and other pollutants; relation to agriculture, logging, grazing, disease, hunting and trapping, law enforcement and biopolitics. Not available for credit for students who complete Wildlife 140. GDR:TCI BA BS
45. Field Experience in Wildlife Management Techniques.
1.5 cr . Investigation of ecological relationships and application of selected wildlife management techniques including habitat evaluation and capturing, marking, monitoring, and censusing animals for integrated resource management. Prereq: 140. (SS)
350/550. Wildlife Management Techniques. 3 cr .
Techniques of managing wildlife populations; field mapping, food habitat studies, sexing and aging, game censuses, and control measures; emphasis on Wisconsin game populations. Prereq: Summer Camp or cons instr. (I, II) GDR:TCI BA BS

353/553. Wildlife Population Dynamics. 2 cr.
Mathematical, ecological, physiological, and behavioral characteristics of wildlife population fluctuations. Prereq: Wildlife 140 or Biology 160; Summer Camp: or cons instr. (I, II)
355/555. Wildlife Diseases. 2 cr. Infections, parasitic, and chemical diseases of wildlife, with emphasis on their occurrence, significance, and role as ecologic factors. Prereq: Cons instr. (I,II)
356/556. Wildlife Disease Methods. 1 cr. Methodology
used to identify and study wildlife diseases in the field and laboratory. Three hrs lab per wk. Prereq: 355/555 or con reg; or cons instr. (I, II)
381/581. Internship in Wildlife. $1-12$ cr. Supervised training program in wildlife, coordinated by the faculty of the College of Natural Resources in cooperation with private or public resource agency professionals. One cr for 2-4 wks ( 40 hrs per wk ) of work, with more rigorous internships receiving more credits. Additional requirements will be determined before registration. Credit will be determined by the instructor. May be repeated one time, but no more than 12 total credits will be allowed. Prereq: Forestry 320, Wildlife 340, Soils 360, and Water 380; or Natural Resources 475; and/or cons intern director. (I, II, SS)
450/650. Human Dimensions of Wildlife and Fisheries Management. 1 cr . Survey and evaluation of research relating to human dimensions of wildlife and fisheries management; review of values, satisfactions, and attitudes associated with consumptive and nonconsumptive uses of wildlife and fish. (I)
451/651. Management of Wildlife Habitat. 4 cr. Principles and practices of habitat management for wildlife in North America. Prereq: Summer camp; or cons instr. (I, II)
454/654. Nonconsumptive Uses of Wildlife. 2 cr. Life histories, behavior, and habitat requirements of wild animals as they relate to management for use other than harvest. Prereq: 340 or cons instr. (II)
456/656. Wildlife Economics. 1 cr. Determination of economic and other values of wildlife, fish, and outdoor recreation; application to environmental impact statements, and mitigation of wildlife losses. Prereq: 140; Economics 210 or 204 or Natural Resources 372. (On demand)


493/693. Wildife Field Seminar. $1-2$ cr. For 1 credit, the course may be taken on a pass-fail basis, For 2 credits, the completion of a comprehensive report on the field experience is required. Prereq. Cons instr. (On demand)
499. Special Work. Upperclass students majoring in wildlife may, by agreement with the Assistant to the Dean, arrange for special out-of-class work for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project. (I, II)
742. Wildife Population Statistics. 3 cr. A study of the collection and analysis of data from wild populations including the development of ecological models. Prereq: Water $484 / 684$ or Wildlife $451 / 651$ or equiv; Mathematics 106, 108 or equiv and 355 or equiv; and cons instr. (On demand)
752. Advanced Studies in Wildife. 3 cr. Survey of the literature concerned with the ecology and management of terrestrial animals. Prereq: $451 / 651$ or cons instr. (On demand)

## NATURAL SCIENCE (College of Letters and Science)

Allen Blocher, Coordinator
Room B-105, Science Building
Phone: (715) 346-3944
The major in natural science may be applied toward a degree in the College of Letters and Science. It may also be used in the School of Education of the College of Professional Studies for Department of Public Instruction certification in broad-field natural science.

## Natural Science Major

Consists of 54 credits selected from one of the following options:
OPTION L. Natural science with an earth science emphasis:

1. Earth science minor, 24 credits.
a. Geography 101 and Geology 101,10 credits.
b. Astronomy 105 and 106,8 credits.
c. Three credits from each of the two following groups: (1) Geography $352,353,354$; (2) Geology 200, 340, 370, 380.
2. Biology, $10-14$ credits including Biology 130 and 160 .
3. Chemistry, $8-14$ credits including Chemistry 105 and 106 , or 115 and 116.
4. Physics, $10-14$ credits including Physics 103 and 104 , or 150 and 250.
5. At least 14 credits must be earned in one of the areas listed in items 2,3 , or 4 above.
6. Collateral courses. Mathematics 100 and 106 , or eligibility for 120.
OPTION H. Natural science with a life science emphasis.
7. A biology minor consisting of 22 credits.
8. Chemistry, $8-14$ credits including Chemistry 105 and 106, or 115 and 116 .
9. Earth science, $8-14$ credits selected from: Geography $101,102,103,352,353,354$, Geology $101,104,105$, $200,340,370$, Astronomy 105,106 or 311 or $370,371$.
10. Physics, $10-14$ credits including Physics 103 and 104 ; or 150 and 250.
11. At least 14 credits must be earned in one of the areas listed in items 2,3 , or 4 above.
12. Collateral courses: Mathematics 100 and 106 , or eligibility for 120.
OPTION II. Natural science with physical science emphasis:
13. A minimum of 36 credits in physical science:
a. A minor in either chemistry ( 23 credits) or physics ( 22 credits);
b. Fourteen credits in the other area,
14. Biology 130 and 160,10 credits.
15. Earth science, $8-10$ credits selected from. Geography $101,102,103,352,353,354$, Geology 101, 104, 105, 200, 340, 370.
16. Collateral courses: Mathematics 100 and 106 , or eligibility for 120 .

## Natural Science Broad-Field Minor

for the elementary education curriculum consists of 25 credits, at least 5 of which are to be selected from each of the following areas:

1. Earth science: Astronomy 105, 106 or 311 , Geography $101,352,353,354$, Geology 101, 200, 340, 380.
2. Life Science Biology $101,130,160$.
3. Physical Science: Chemistry 101, $105,106,114,115$, 116; Physics $101,103,104,150,250$.

## NURSING <br> (College of Professional Studies) in cooperation with UW-Eau Claire

D. Chitharanjan, Coordinator

Room D-144, Science Building
Phone: (715) 346-2646
Through an agreement with St. Joseph's Hospital, Marshfield, UW-Eau Claire, UW-Stevens Point, and the UW Center campuses, you can now earn a bachelor of science in nursing degree from UW-Eau Claire while doing most of your course work at UW-Stevens Point.
This satellite nursing program was developed after St. Joseph's Hospital decided in 1986 to phase out their threeyear nursing diploma program. Because of the increasing social and technological complexities of health care, they decided it was essential to begin a baccalaureate degree program. In order to allow students to attend nursing classes in the Marshfield and Central Wisconsin area, this cooperative program was established.
Remember, you will receive your degree from UW-Eau Claire, even though you will be taking the following courses here at UW-Stevens Point.

1. General education requirements:

Communication 101.
English 101, 102.
Mathematics 355.
Natural Science, 9 credits of general degree requirements in at least two disciplines.
Psychology 110, 260.
Sociology 101.
Economics or Political Science, 3 credits. Humanities, 12 credits in at least three disciplines. Physical Education/Aerobic Activity, 2 credits.
2. Major support courses: Biology $160,285,333$, Chemistry 105, 106, 220, 260, Medical Technology 105, 295.
3. Nursing courses: 51 credits are offered through St. Joseph's Hospital via SEEN (Statewide Extension Education Network), through utilization of on-site instructors, and other educational technologies. Eight credits of Nursing 225 (Practice Dimensions of Nursing) must be completed during a summer session at UW-Eau Claire.

For more complete information about admission to the UW-Eau Claire professional nursing program, please contact the nursing coordinator in the Medical Technology Office.

## NUTRITION

See Home Economics.

## OUTDOOR EDUCATION

See Natural Resources.

OVERSEAS STUDY PROGRAM<br>See International Programs.

## PAPER SCIENCE <br> (College of Natural Resources)

Larry L. Graham, Chair
Room D-127, Science Building
Phone: (715) 346-4817
Faculty: S. Deodhar, Graham, Holt, Ring.

## Paper Science Major

Consists of major, collateral, and university general degree requirements, totaling 139 credits (plus physical education):

1. Paper science courses, 48 credits: $210,215,314,320$, 326, 350, 355, 365, 430, 440, 460, 475, 485, 486, 490, 495.
2. Mill internship: Paper Science 300, 3 credits.
3. Chemistry 115 and 116 (or 105 and 106), 248, 325, 326, 328, 335, 338. (These courses satisfy the requirements for a minor in chemistry.)
4. Collateral courses: Computer Information Systems 112; Economics 210; Mathematics 120, 121, 222; Physics 150, 250; Water 481.
A minimum grade point average of 2.75 is a prerequisite for acceptance as a major at the start of your junior year.
Grades of " $\mathrm{D}+$ ", or lower cannot be accepted as satisfying prerequisites for any paper science course. A maximum of one grade of " $\mathrm{D}+$ " or below in required paper science courses and collateral requirements numbered 300 or above may be applied to the major.
If you do not meet these standards, you may petition the chair of the department for consideration.

## Courses in Paper Science

101. Introduction to Pulp and Paper Processes. 3 cr. A survey of the pulping and papermaking processes with emphasis on present technology and use of raw materials; field trips to observe commercial operations. Two hrs lec, one hr disc per wk.
102. Freshman Forum. 1 cr . Orientation to technical and professional aspects of the paper and allied industries; presentation of information by students, faculty, and guest lecturers.
103. Pulp and Paper Laboratory Methods. 3 cr. Precision laboratory methods in pulp, paper, and nonfibrous testing; microscopic techniques; emphasis on statistical analysis of data. One hr lec, four hrs lab per week. Prereq: Chemistry 116 or 106, or cons instr.
104. Introduction to Process Engineering Calculations. 4 cr. Basic principles and techniques of engineering problem
formulation and solution; material and energy balances, including chemical reactions and studies of advanced systems; thermodynamic properties and engineering data information management; introduction to computer modeling and simulation; applications to pulp and papermaking process engineering. Prereq: Chemistry 116 (or 106); Mathematics 106 and 108; Computer Information Systems 112; Paper Science 210; or cons instr.
105. Mill Internship. 3 cr. Paper science majors are required to work 10 weeks in a pulp and paper mill, with emphasis on manufacturing assignments. The student must submit a comprehensive report on the process. Prereq: Cons chair.
106. Electrical Engineering Concepts. 1 cr .

Electromechanical energy conversion systems: alternating and direct current machinery; automatic sequences relay logic, as applied to pulp and papermaking process systems. Prereq: Physics 250 or cons instr.
312. Principles of Corrosion. 2 cr. Basic mechanism and causes of corrosion; electrochemistry; metallic oxidation; protection mechanisms and techniques; anodic and cathodic protection coatings; applications to pulp and paper mill systems. Prereq: Chemistry 335, or cons instr.
313. Mechanics of Deformable Media. 2 cr. Principles of stress, strain, and rate of strain; bending, shearing, and compound stresses in beams; elastic, plastic deformations, creep; mechanics of fibers, paper, and paperboard. Prereq: Physics 150 or cons instr.
314. Engineering Statistical Design and Analysis. 3 cr . Statistical methods for the design, analysis and improvement of engineering experimentation and process operation: experimental design, regression analysis, modeling, analysis of variance, and evolutionary operation. Prereq: Jr st in paper science or cons instr.
320. Fluid Mechanics and Hydraulics. 3 cr. Properties of fluids; momentum transport phenomena; laminar and turbulent flow; measurement and control of flow; fluid machinery; engineering calculations and design; economic factors. Two hrs lec, three hrs lab per wk. Prereq: 215; Mathematics 222; Physics 150; or cons instr.
326. Heat Transfer Operations. 3 cr . Fundamental heat transfer mechanisms: conduction, convection, and radiation; heat transfer coefficients; heat exchange equipment; evaporation and evaporator systems; drying; economic factors; applications specific to pulp and paper processes; study of field operations. Two hrs lec, three hrs lab per wk. Prereq: 320 or cons instr.
350. Wood and Pulping Technology. $4^{\prime} \mathrm{cr}$. Cellulose, hemicelluloses, lignin, wood extractives, wood and fiber microstructure; commercial pulping and bleaching processes. Three hrs lec, three hrs lab per wk; field operations. Prereq: Chemistry 326.
355. Paper and Fiber Physics. 4 cr. Fiber structure and properties; interfiber bonding; mechanical optical, chemical properties of paper; interrelations between structure, manufacturing consolidation factors, and ultimate properties. Three hrs lec, three hrs lab/disc per wk: Not to be counted toward the major or minor in physics. Prereq: 350 or cons instr.
365. Colloid and Surface Phenomena. 3 cr. Principles of colloid and surface chemistry; electrokinetic and base exchange phenomena; thermodynamics of interfacial systems; adsorption; applications to coatings, flocculation, fillers, and wet end additives. Prereq: Chemistry 335.
399. Research Problem. $1-3 \mathrm{cr}$. Upperclass students majoring in paper science may, with consent of the chair, arrange for special laboratory or field research in consultation with staff and industry. Emphasis is placed on problem analysis, literature searches, and communication of research results. Credit is awarded on the basis of 1 credit for each week, or its equivalent devoted exclusively to a special project.
430. Mass Transfer Operations. 3 cr. Fundamental concepts; mass transfer coefficients; gas absorption; filtration; extraction; pulp washing systems; sedimentation; cooling, bumidification, air conditioning; drying; applications specific to pulp and paper processes; study of field operations. Two hrs lec, three hrs lab per wk, Prereq 326 or cons instr.
440. Industrial Thermodynamies and Kineties. 4 cr . Thermodynamic properties; energy and entropy balances; thermodynamics of energy conversion: combustion, steam, vapor power cycles; energy recovery systems; chemical kinetics and reaction engineering, economic and environmental factors; applications specific to pulp and paper processes, study of field operations. Three hrs lec, two hrs lab/dise per wk. Prereq: 326 and Chemistry 330 or 335; or cons instr.
445. Paper Coating and Converting. 3 cr. Pigment coating materials and processes; converting operations including laminating, corrugating, extrusion and hot melt coating; functional coatings, presentation of information by staff and guest lecturers. Prereq, Sr st in paper science or cons instr.
460. Process Dynamies and Control. 4 cr. Dynamic model formulation and solution, utilizing Laplace transform, analog, and digital computing techniques; control theories, strategies, and equipment; controller tuning; applications specific to the pulp and paper processes; study of field operations. Three hrs lec, three hrs lab per wk. Prereq: Mathematics 222.
475. Transport Operations in Fibrous Systems. 3 cr Hydrodynamics of fibrous suspensions; dynamics of sheet formation and water removal; fundamentals of pressing; analysis of the drying process in terms of heat and mass transfer; economic factors; engineering calculations performed on full scale production paper machine. Two hrs lec, three hrs lab per week. Prereq: Cons instr.
485. Systems Engineering and Simulation. 2 cr. Modeling and simulation of pulp and papermaking systems; computer systems analysis; commercially available simulation hardware and software; model building for engineering systems, industrial case histories and economic systems optimization. One hr lec, three hrs lab per wk. Prereq: Cons instr.
486. Engineering Design Project. 3 cr, Engineering economics; interest and economic equivalence, methods of comparing project and investment alternatives; individual student project: project defintion; equipment selection and sizing, capital and operating cost estimation; economic evaluation and justification; oral and written presentation of project. Two hrs lec, one hr disc per wk. Prereq. Cons instr.
490. Seminar I. 1 cr . Orientation to technical and professional aspects of the paper industry; effective use of literature, and technical communication techniques; presentation of information by students, staff, and guest lecturers. Prereq. Sr st in paper science, or cons instr.
495. Seminar 11. 1 cr. Use of the literature, procedures in designing a research project, and the presentation of information by students, staff, and guest lecturers. Prereq: Sr st or cons instr.

## PEACE STUDIES <br> (College of Letters and Science)

Charles H. Rumsey, Coordinator<br>Room 476, College of Professional Studies Building Phone: (715) 346-4489

Faculty Burress, Harris, Lokken, C. Rumsey, B. Singh, W. Skelton.
100. Dimensions of a Peaceful World. 3 cr . An interdisciplinary study of alternatives to violence and war, including biological, psychological, economic, political, philosophical, and humanistic alternatives.
101. The Social Matrix of War. 3 cr. Economic, political, and social forces which give rise to war, and the social dislocation resulting from war.
230. Nonviolence. 3 cr. Philosophy, history, and strategy of various nonviolent movements, such as those of Gandhi and Martin Luther King. Prereq. So st.
240. The Personal Element in Peace. 3 cr. Exploration of how a peaceful person develops, survives, and contributes to society; theories of man with emphasis on humanistic and interpersonal concepts, theories of love, love as giving meaning to life, and its expression in government and business. Prereq: So st.
250. War and the Arts. 3 cr . Images of war favorable and critical in literature, painting, and the popular arts. Prereq: So st.
300. Dimensions of a Peaceful World. 3 cr. Same as 100 , for juniors and seniors.
320. Peace Movements. 3 cr. Evaluation of the history and effectiveness of selected peace movements.
330. Theories of War and Aggression. 3 cr. Various definitions of war; justifications by which men like Augustine, Clausewitz, Angell, Freud, Montagu, and others have explained war and aggression.
340. The Nuclear Arms Race and Arms Control. 3 cr . Political, economic, and technical aspects of the nuclear arms race, World War 11 to the present; future prospects for arms control. GDR:TCI BA BS
350. Economics of War and Peace. 3 cr. Economic analysis of war and peace; the costs and benefits of each, their impacts on employment, inflation, growth, trade, and budgets; evaluation of present and future economic trends as applied to war and peace.
370. Futures. 3 cr. Possible futures for mankind on earth; surveys of projections of observed social and scientific trends and alternative social systems relating to the question of the survival of mankind.
399. Special Work. 13 cr, Upperclass students may, by arrangement with an instructor, enroll for special work for which credit may be allowed on the basis of 1 credit for each week, or its eqivalent, devoted exclusively to independent study. Written proposals for special work must be submitted to the Peace Studies Committee for approval.
490. Seminar. 3 cr. Intensive study of selected persons, movements, or problems. The topic dealt with will be
indicated by a subtitle each time the course is offered. Prereq: Cons instr.

## PHILOSOPHY <br> (College of Letters and Science)

Richard J. Feldman, Chair
Room 489, Collins Classroom Center
Phone: (715) 346-3340
Faculty: Bailiff, Billings, Callicott, Fadner, Feldman, Herman, Joy, Olen, Overholt, J. Schuler, Vollrath, Zawadsky.

## Philosophy Major

Consists of a minimum of 27 credits including:

1. History: Philosophy $217,218$.
2. Logic: Philosophy 321.
3. Value Theory: One course from Philosophy 220, 303, 305.
4. Systematic: One course from Philosophy 306, 310, 312, 318.
5. Seminar: Philosophy 490.

## Philosophy Major with Concentration in Religious Studies

Consists of 33 credits including:

1. History: Philosophy 217.
2. Logic: Philosophy 121 or 322.
3. Value Theory: One course from Philosophy 220, 303, 305, Religious Studies 310.
4. Systematic: One course from Philosophy 306, 310, 312, 318, 320.
5. The religious studies concentration;
a. Historical background: Religious Studies 103 or 104; and 100 or Philosophy 105.
b. Phenomenology of religion: One course from Religious Studies 102, 316, 330.
c. Western religious thought: Religious Studies 301, 311, or 321.
d. The remaining 9 credits are to be selected, with the advice of the departmental adviser, from religious studies and the following collateral courses: Anthropology 320; Comparative Literature 240; History 316; Philosophy 105, 320, 335, 337, 338; Sociology 431.

## Philosophy Minor

Consists of a minimum of 18 credits including Philosophy 217 and 218 , and one course to be selected from Philosophy 220, 221, 303, 305, 222.

## Philosophy Major and Minor for Teacher Certification

For teacher certification a minimum of 34 credits is required for a major in philosophy, and a minimum of 22 credits for a minor; all other requirements are the same.
To ensure that your program is as well planned as possible, the Philosophy Department requires each major or minor to have a departmental adviser.

## Notes:

1. You must have your adviser's approval on all philosophy courses you select to apply to the major or minor.
2. You may apply selected upper division religious studies courses to your philosophy major or minor if it will strengthen your program and you have your adviser's approval.
3. To be accepted and retained as a major and approved for graduation, you must have a minimum grade point average of 2.00 ( 2.75 to student teach) in philosophy courses. Philosophy courses taken pass-fail or with a grade lower than " $C$ " may not be counted toward the major. The department chair may allow exceptions.

## Courses in Philosophy

100. Introduction to Philosophy. 3 cr . A survey of the important problems in philosophy such as the nature of reality, knowledge, value, God and man. GDR:HU3
101. Contemporary Moral Problems. 3 cr . An attempt to clarify selected contemporary moral issues through an application of the insights of moral philosophy and the tools of critical reflection. GDR:HU3
102. Philosophical Classics. 3 cr . Reading and discussion of one or more philosophical texts designed to acquaint the student with examples of sustained philosophical argument and mature defense of philosophical proposals. Prereq: Three cr of Philosophy or cons instr.
103. Philosophies of Life. 3 cr . An introduction to philosophies of life, East and West, that have guided men and women throughout history. GDR:HU3
105(NW). Philosophy and Religion of India and China, 3 cr. An introduction to the origin and development of Indian and Chinese thought and religion, with special emphasis on Hinduism, Buddhism, Taoism, and Confucianism. GDR:HU3
104. Critical Thinking. 3 cr . Fundamental principles of reasoning, with an emphasis on the recognition, analysis, and evaluation of arguments, and on the selection and testing of hypotheses. GDR:HU3
105. Reading in the Discipline. 1 cr . A tutorial designed to enhance the critical reading and thinking of students enrolled in designated sections of 100 -level philosophy courses. Pass-Fail.
106. History of Ancient Greek Philosophy. 3 cr . The preSocratics, Plato, Aristotle, and post-Aristotelian philosophers. Prereq: So st. GDR:HU3
107. History of Early Modern Philosophy. 3 cr . Major philosophic movements and figures from the Renaissance through Immanuel Kant. Prereq: So st. GDR:HU3
108. Problems in Political and Social Philosophy. 3 cr . A systematic analysis of the fundamental concepts of political and social theory including the concepts of the state, of law and rights, of political obligation, of authority and power, and of justice. Prereq: So st. GDR:HU3
109. Introduction to Philosophical Thinking. 3 cr. Critical analysis of selected ideas in the writing of philosophers such as Aristotle, Descartes, Hume, Sartre, and Russell. Students may not take both Philosophy 100 and Philosophy 300. Prereq: Jr or sr standing. GDR:HU3 301. Philosophy in a Literary Mode. 3 cr . Selected popular works with philosophical interest will be interpreted and discussed; a subtitle will be added each time the course is offered, indicating the specific selection. GDR:HU3
110. Ethics and Medicine. $\mathbf{3}$ cr. A critical examination of ethical issues in medicine and health care. GDR:HU3
111. Philosophy of Art. 3 cr . An examination of traditional and contemporary theories about the nature and function of art, the processes of artistic creation and appreciation, and philosophical problems in art criticism.
GDR:HU3
112. Ethics in Business and Economics. 3 cr. Readings and case studies in ethical concepts and their application in business management, economic policy, and the organization of work. GDR:HU3
305/505. Ethics. 3 cr. A critical examination of moral concepts and representative ethical systems. GDR:HU3
113. Philosophy of Science. 3 cr . An examination of scientific theories in terms of their content and structure, their explanatory function, and their confirmation. GDR:HU3
114. Science and Value, 3 cr. An examination of the relationship between scientific knowledge and basic moral values. GDR:HU3
115. Nineteenth Century Philosophical Thought. 3 cr . Philosophy and related ideas of the century of ideology and progress including such figures as Hegel, Darwin, Marx, and Mill, and their influence on post-19th century philosophy. GDR:HU3
116. Contemporary Philosophy. 3 cr. The philosophic trends of the 20 th century including Existentialism, Logical Positivism, Ordinary Language Philosophy, and Phenomenology. GDR:HU3
117. Metaphysics. 3 cr. A study of the nature, limits, and structure of ultimate reality and its relation to the sciences.
118. Epistemology. 3 cr. A study of nature, limits, and bases of human knowledge.
119. Philosophy of Law. 3 cr . An examination of legal concepts, natural law, and the logic of reasoning.
GDR:HU3
120. Philosophy of Language. 3 cr. An introduction to the theories of meaning and the role played by language in man's conception of the world.
121. Philosophy of Religion. 3 cr. Basic problems of the philosophy of religion such as the existence of God, the problem of evil, religious language, and immortality. GDR:HU3
122. Symbolic Logic. 3 cr. Introduction to symbolic logic with particular attention to truth functions, general quantification theory, including the scope and limits of formal logic.
123. Genetic Engineering: Implications and Ethics. 3 cr. Basic scientific principles of recombinant DNA research. Applications in medicine and food production. Ethical assessment of the research and the applications. Also offered as Biology 327. GDR:TCI BA BS
124. Existential Philosophy. 3 cr. Phenomenology and the philosophy of human existence from Kierkegaard to Sartre. GDR:HU3
$331 / 531$ (NW). History of Pre-Revolutionary Russian
Philosophy. 3 cr. The development of Russian religious and philosophic thought from its Byzantine origins to the end of the 19th century, GDR:HU3
332/532. Development of Soviet Ideology. 3 cr. An examination of the sources and evolution of historical and dialectical materialism - the philosophy of the Soviet Union. GDR:HU3
335(NW). Basic Texts of Hinduism and Buddhism. 3 cr. A systematic examination of classical Indian philosophic texts such as the Upanishads, the Yoga Sutras, the Bhagavad Gita, or the Prajnaparamita literature of Buddhism.
Prereq: 105 or cons instr. GDR:HU3
337(NW). Indian Yoga. 3 cr. The history, theory, and
practice of Indian yoga from the Upanishads to the modern period. Prereq: 105; Religious Studies 100 ; or cons instr. GDR:HU3
338(NW). Chinese Philosophy. 3 cr. Origins and development of the major schools of Chinese thought, concentrating on texts from various periods. GDR:HU3
125. American Philosophy. 3 cr. Philosophical trends and thinkers in American religious, political, and scientific thought from the colonial period to the present century. GDR:HU3
126. Environmental Ethics. 3 cr. Philosophical, religious, and scientific concepts and values which have structured human attitudes toward the natural environment; alternative concepts and values will be explored. GDR:HU3
381(NW). American Indian Environmental Philosophies. 3 cr. Traditional and contemporary American Indian thought in regard to man, the natural world, and their interrelationsip with present Wisconsin tribes. GDR:HU3
385/585. Workshop in Environmental Aesthetics. 2 or 3 cr. An exploration of concepts and criteria for the appreciation and articulation of natural beauty. Prereq: 380 or cons instr.
127. Philosophical Problems. 3 cr. A significant philosophical problem and the literature that bears on it; a subtitle will be added each time the course is offered. Prereq. 3 cr in philosophy or cons instr.
128. Independent Study, 1-3 cr. An independent study of a philosophical problem, theme, thinker, or period of special interest to the student may be arranged with an instructor in the department, in consultation with the chair. Number of credits will depend on scope of the project.
490/690. Seminar. 3 cr . Intensive study of a major philosophic figure or topic. A subtitle indicating the figure or topic will be added each time the course is offered. Prereq: Cons instr.
For more course listings in philosophy, see the Latent Course Listing at the end of this section.

PHOTOGRAPHY
See Instructional Resources.

## PHYSICAL EDUCATION

See Health Promotion/Physical Education.

## PHYSICAL EDUCATION FOR THE EXCEPTIONAL INDIVIDUAL <br> See Health Promotion/Physical Education.

## PHYSICS

(College of Letters and Science)
Francis L. Schmitz, Department of Physics and Astronomy Chair
Room B-109, Science Building
Phone: (715) 346-2139
Faculty: Beeken, Blocher, Jagdish Chander, Kulas, Lokken, Randy Olson, Razdan, Schmitz, Taylor. Courses in astronomy are listed under that title earlier in the catalog.

## Physics Major

Consists of 36 credits including:

1. Physics $150,250,305,307,308,310,400,410,415$, and one credit of 388 or 499 .
2. Select the remaining credits from physics courses numbered 300 and above (except 333).
3. Collateral courses include Chemistry 115 and 116 (or 105 and 106); Mathematics $120,121,222,320$.

## Physics Major for Teacher Certification

Consists of 36 credits including:

1. Physics $150,250,305,307,310,400$, and 410.
2. Select the remaining credits from Astronomy 311 or from physics courses numbered 300 and above.
3. Collateral requirements include Mathematics 120,121 , 222.
4. The Wisconsin Department of Public Instruction requires an additional 8 credits of science in another discipline for teacher certification.
To be accepted in the junior year and retained as a physics major, and to be approved for graduation, you must have a minimum grade point average of 2.00 (2.75 to student teach) in all courses in the major, regardless of a declaration of academic bankruptcy. The department chair may grant exceptions.
No more than one grade below "C-" in physics courses numbered 300 or above may be applied toward the major. If you do not meet these standards, you may petition the department for consideration.

## Physics Minor

Consists of 24 credits:

1. Physics $150,250,305$ or 307,400 , and other physics courses numbered 300 and above: At least 1 elective must include a laboratory.
2. Collateral requirements include Mathematics 120,121 , 222.
3. If you are entering a teaching field, you may select Astronomy 311 as an elective. A minor in physics is certifiable for teaching only when accompanied by a major in another science or a major in mathematics. When you decide to minor in physics, register in the department office to be assured of proper advising. To be accepted as a minor you must have a minimum grade point average of 2.00 ( 2.75 to student teach), regardless of a declaration of academic bankruptcy. The department may grant exceptions. No more than one grade below "C-" in physics courses numbered 300 or above may be applied to the minor.
To major or minor in physics, you must register for acceptance no later than the first semester of your junior year.
Physics 301, 305, 307 will be offered first semester only in 1987-88 and 1989-90.
Physics 303, 390, 400 will be offered first semester only in 1988-89 and 1990-91.
Physics $302,308,310,315$ will be offered second semester only in 1987-88 and 1989-90.
Physics $205,410,415$ will be offered second semester only in 1988-89 and 1990-91.

## Notes:

1. You may receive credit for only one of these: Physics $100,101,103,150,201$.
2. You may receive credit for only one of these: Physics $100,101,104,202,250$.
3. You will not receive credit for graduation for a course
if you have already successfully completed a more advanced course in a similar area. The following restrictions hold:

If you received credit for:
Physics 100
Physics 101
Physics 103
Physics 104
Physics 150
Physics 250
you cannot receive credit for
Physics 101
Physics 100
Physics 100, 101, 201
Physics 100, 101, 201, 202
Physics 100, 101, 103, 201
Physics 100, 101, 104, 202

## Courses in Physics

100. Energy in Today's World. 3 cr . Basic energy concepts; energy sources and processes; projected depletion of present resources; the role of conservation, research, and development; alternatives and prospects for the future. Two hrs lec, two hrs lab per wk. GDR:NS
101. General Physics. 5 cr. Fundamental principles of physics with emphasis on application; designed for students in the elementary education curriculum, general education, communicative disorders, home economics, and physical education. Two hrs lec, one hr discussion, four hrs lab per wk. GDR;NS
102. General Physics. 5 cr . Mechanics, heat, and sound. Recommended for students in general education, biology, and premedical and related fields. Three hrs lec, one hr disc, three hrs lab per wk. Prereq: One yr of high school algebra and one yr of high school geometry, or equiv. GDR:NS
103. General Physics. 5 cr. Light, electricity and magnetism, and topics in modern physics. Recommended for students in general education, biology, añid premedical and related fields. Three hrs lec, one hr disc, three hrs lab per wk. Prereq: 103, or equiv, or cons instr. GDR:NS
104. General Physics: Basic Principles. 1 cr. Fundamental principles of physics for students in medical technology with emphasis on problem-solving techniques. One hr per wk. Prereq: con reg in 104.
105. General Physics I. 5 cr . Mechanics, heat, and sound. Three hrs lec, one hr disc, three hrs lab per wk. Prereq: Mathematics 120, or cons instr. GDR:NS
106. Applied Principles of Physics I. 4 cr . Selected topics in mechanics, heat, and sound. Two hrs lec, one hr disc, three hrs lab per wk. Prereq: Mathematics 100 or equiv, or cons instr.
107. Applied Principles of Physics II. 3 cr. Selected topics in electricity, magnetism, optics, and modern physics. Two hrs lec, three hrs lab per wk. Prereq: 201 or equiv, or cons instr.
108. Basic Electricity. 3 cr . Electrical concepts including voltage, current, resistance, capacitance, and inductance; simple a.c. and d.c. circuits, Kirchhoff's laws and other circuit laws; instrumentation in circuit analysis. Two hrs lec, two hrs lab per wk. Prereq: Mathematics 106 or equiv, or cons instr.
109. Statics. 3 cr . Principles of mechanics, force systems, equilibrium, structures, distributed forces, moments of inertia of area, friction. For students in the pre-engineering curriculum. Prereq: 150; Mathematics 121; or cons instr.
110. Dynamics. 3 cr. Kinematics, force-mass-acceleration relationships, work and energy, impulse and momentum, moments of inertia of mass. For students in the pre-
engineering curriculum. Prereq. 220; Mathematics 222; or cons instr.
111. General Physics II. 5 cr. Electricity, magnetism, opties, and modern physics. Three hrs lec, one hr disc, three hrs lab per wk. Prereq. 150, Mathematics 121 , or cons instr. GDR:NS
112. Electronics. 4 cr . Theory, application and practice of solid state devices; circuits and systems using these devices. Three hrs lec, three hrs lab per wk. Purchase of laboratory manual is required. Prereq: 205 or equiv, or cons instr.
113. Digital Electronics. 3 cr. Theory and operation of digital gates, flip-flop circuits, counters, shift registers, multiplexers, and analog to digital converters; applications of Boolean algebra to digital arrays, codes, coding and decoding. Two hrs lec, two hrs lab per wk. Prereq. 205 or equiv, or cons instr.
114. Advanced Optics. 3 cr. Principles of physical and geometrical optics. Prereq: 250; Mathematics 222.
115. Advanced Mechanics. 3 cr. Vectors, rectilinear and curvilinear motions, including simple harmonic and damped vibrations; rotation of rigid bodies. Prereq: 250; Mathematics 222.
116. Electricity and Magnetism I, 3 cr. Direct and alternating current circuits; transients; introduction to theory of electrostatics. Prereq: 250; Mathematics 222.
117. Electricity and Magnetism II. 3 cr. Continuation of theory of electrostatics; magnetic properties of materials; Maxwell's equations, Prereq: 307.
118. Intermediate Laboratory, 2 cr. Experiments and laboratory practice in electricity, magnetism, and optics. One hr lec, three hrs lab per wk. Prereq: 307 or con reg, or cons instr.
119. Thermodynamics. 3 cr. Principal concepts of thermodynamics and elementary kinetic theory. Prereq: 250; Mathematics 222.
120. Physical Approach to Environmental Science, 3 cr. A study of the environment emphasizing physical principles; energy and the environment, impact of technology, mechanics of the environment; application to environmental problems. Prereq. Completion of the general requirements in natural science; Mathematics 100 or equiv, or cons instr.
121. Selected Topics. 1 to 3 cr. Topic will be announced in the timetable. Prereq, Cons instr.
122. Research Participation. 1 to 4 cr . (Re-enrollment permitted to a maximum of 6 credits.) Investigations of current problems in physics, requiring three to 12 hrs per week in the laboratory. Prereq: Recommendation by a staff member and approval of the research supervisor.
123. Digital Systems and Microprocessors 1. 4 cr. Theory and operation of digital systems including measuring instruments, and microcomputer systems; ROMs, RAMs, ALUs, I-O devices, CPUs; applications and interfacing of microcomputers. Three hrs lec, three hrs lab per wk. Prereq: 301, 302, and Computer Information Systems 230, or cons instr.
124. Digital Systems and Microprocessors II. 3 cr. A continuation of 390 to include the 16 -bit processors, serial interfacing, standard bus systems, and data-handling systems. Two hrs lec, 3 hrs lab per wk. Prereq. Physics 390 or cons instr.
125. Atomic and Nuclear Physics. 3 cr. Special relativity,

Bohr atom, atomic spectra, radioactivity, nuclear reactions and scattering. Prereq. 250.
410. Advanced Laboratory. 2 cr . Experiments and laboratory practice in atomic and nuclear physics. One hr lec, three hrs lab per wk. Prereq: 250.
415. Introduction to Quantum Mechanics. 3 cr. Quantum theory; wave packets, Schrodinger equation, hydrogen atom, harmonic oscillator, square wells, spin matrices, and operators. Prereq: 305 or 400 .
496. Independent Study, 1 to 4 cr. Planned study designed to enrich and supplement preparation in your area of specialization; regular scheduled conferences with the staff supervisor. Prereq, Cons chrmn.
499. Special Work. Upperclass students majoring or minoring in physics may, by agreement with the chair, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project.
701. Physical Science. 3 or 4 cr. An examination in depth of certain developments in physical science from the standpoint of the principles involved and the impact of man's thought and way of life. Open to teachers who feel the need for an introductory course in physical science.
796. Independent Study. 1 to 4 cr. Planned study designed to enrich and supplement the student's preparation in his/her area of specialization. Prereq: The student must be mature enough to be able to do independent study, the course must supplement his/her current graduate work.
797. Workshop in Energy Concepts. 3 cr. A workshop to provide background materials in energy concepts and to assist teachers in developing curricula in this area. Two hrs lec, one hr lab per wk.

## POLISH

See Foreign Language.

## POLITICAL SCIENCE

(College of Letters and Science)
Dennis Riley, Chair
Room 482, Collins Classroom Center
Phone: (715) 346-2688
Faculty: Canfield, Cates, Christofferson, E. Miller, Morser, Oster, D. Riley, B. Singh, Woodka.

## Political Science Major

Consists of at least 34 credits including:

1. At least 3 credits from 101 (or 301), 102.
2. Three or more credits in each of five or more fields listed below. Include at least one 3 -credit course that does NOT emphasize American politics, American policy, or American theory.
a. American Government: $308,309,310,312,313,315$, $316,317,320,322,411,412$.
b. Comparative Government: $206,350,361,364,370$.
c. International Relations: $280,380,382,384$.
d. Political Theory $270,391,392,393,394,395,396$, 497.
e. Public Administration and Policy Analysis: 250, 304, $306,314,344,350,351,354,356,358,397,450$, 454.
f. Public Law: $211,212,312,313,320,382,411,412$.
g. State and Local Government: $242,341,342,344$, 454.
3. At least 15 credits must be earned in courses numbered 300 and above.
To be admitted and retained as a major, and approved for graduation, you must have a grade point average of 2.00 ( 2.75 to student teach) in all courses taken in the major regardless of declaration of academic bankruptcy. The department may allow exceptions.

## Political Science Minor

Consists of at least 22 credits. Take at least 3 credits from 101 (or 301 ), 102; 10 or more credits in courses numbered 300 and above; and at least 3 credits in each of four or more of the fields indicated in the description of the major, above.
Information and Recommendations:

1. We recommend that the 200 -level survey course be taken before 300/400-level courses in the various fields.
2. Generally, 400 -level (senior) courses are open to juniors.
3. Sophomores seeking admission to $300 / 400$-level courses should have consent of instructor.
4. Prerequisites are listed in the catalog course descriptions.
5. Political Science 301 is for nonmajors and nonminors or for majors and minors entering our programs after attaining junior or senior standing. Credit may NOT be earned in both 101 and 301.
6. If you earn adequate scores on the College Level Entrance Placement (CLEP) exam, the department will grant credit for and/or waivers of Political Science 101 and 102.
7. Emphases: As a political science major, you may choose an emphasis to prepare for graduate school, law school, public administration, or teaching certification. Information is available in the department office.
8. Internships: Selected students may earn credits as interns with local, regional, state, or national agencies in Political Science 455. Those selected for the "Washington Semester" at American University or the Washington Center for Learning Alternatives must pay tuition and fees required by these programs.

## Courses in Political Science

100. Contemporary Political Issues. 1 cr . A critical examination of the social and political implications of a major, contemporary issue area. Two hrs per wk. A subtitle will be added each time the course is offered. The course may be taken twice under different subtitles. PassFail only.
101. Introduction to American Politics. 3 cr . Survey of American politics and government. GDR:SS1
102. American Policymaking. 3 cr. Introduction to analysis of governmental policymaking; emphasis on theories of the policy process and substantive policy issues. GDR:SS1
103. Introduction to Global Politics. 3 cr . Political implications of growing interdependence among states; current problems in politics of the ternational economic order, terrorism, resource distribution, population growth, and national security.
206(NW). Introduction to Comparative Politics. 3 cr. Theories of comparative government and the political systems of selected Western, non-Western, and Communist countries. Prereq: So st. GDR:SS1
104. Practical Law. 3 cr . Principles and applications of civil and criminal law as they affect citizens; emphases on consumer, juvenile, family, mental commitment, rules of evidence, probate, torts, and student rights. Prereq: So st.
105. Introduction to Law and Legal Systems. 3 cr . The nature of law and legal processes as instruments of social control. Prereq: So st. GDR:SS1
106. Survey of State and Local Government. 3 cr . An introduction to political structure, functions, and behavior at the subnational level; examination of empirical theories which seek to explain political behavior in the states and communities; emphasis on Wisconsin. Prereq: So st. GDR:SS1
107. Introduction to Public Administration. 3 cr . Theory and practice of public administration in the United States. Prereq: So st. GDR:SS1
108. Introduction to Political Theory. 3 cr . Critical survey of literature, problems and solutions in political theory; nature of political man, purposes and conceptions of government, and viability of government as a social control device. Prereq: So st.
109. International Politics. 3 cr . Analysis of general principles and theories of international politics and organizations; emphasis on security, power, prestige, and peace. Prereq: So st. GDR:SS1
110. Introduction to American Politics. 3 cr . Survey of American politics and government. Credit may not be earned in both 101 and 301. GDR:SS1
304/504. Politics and the Environment. 3 cr.
Environmental quality policymaking processes and policy outputs, including statutes, agency rules, and court decisions dealing with air, water, and land; analysis of costs, results, trends.
111. Health Politics and Policies. 3 cr . Focus on public policy analysis, programs, and decision-making concerning health care financing, delivery, access, and providers. Impact and effectiveness of major government programs and proposed reforms are explored.
112. Public Opinion. 3 cr. Formation, measurement, and content of American political opinions; relationship to public policies.
113. Tribal Governments in the United States. 3 cr . Contemporary tribal governments; relationships with federal, state, county, and local governments; intertribal organization and interest groups.
114. The American Presidency. 3 cr . An analysis of the development of the American chief executive, with primary emphasis on the 20th century president; the nature of presidential power, its effectiveness and its limitations.
115. Law and Native Americans. 3 cr . Legal relationships of Native Americans to tribal, county, state, and federal governments; examination of personal rights as defined by treaties, case law, federal and state statutes dealing with criminal procedures, civil rights, allotments, heirship, and torts.
116. The Judicial Process. 3 cr . The nature and role of law and of the judiciary in American democracy; basic American judicial concepts; judicial organization, selection, tenure, and procedure. Prereq: 212 or cons instr.
314/514. Selected Issues in Public Policy. 3 cr. An intensive analysis of selected national political issues in public policy; their origin, development, proposed solution, and political impact.
117. Minority Group Politics. 3 cr . Political behavior and impact of ethnic, religious, racial and ideological minority groups in the United States.
316/516. Political Parties and Elections. 3 cr. A description
and critical examination of political parties and voting behavior in the United States.
118. Political Woman. 3 cr . An analysis of the development and changing status of women in American politics; comparison of the political behavior of women with other segments of society; the future of the political woman.

320/520. The Legislative Process. 3 cr. An analysis of the forces and procedures that determine the formation of law and public policy in the United States.
322. Interest Groups in Politics. 3 cr. The nature and influence of pressure groups in American politics; a critical analysis of their effect upon the democratic way of life.
341. Urban Politics. 3 cr. Analysis of urban governments in the United States; attention to governmental structures, powers, policies, and political patterns in both large and small cities; emphasis on Wisconsin. Prereq. 242 or con instr.
342/542. Government and Politics of Metropolitan Areas. 3 cr . Investigation of the interrelationships among governments in metropolitan areas with emphasis on regional cooperation, suburban politics, and regional planning. Prereq: 242 or cons instr.
344. Intergovernmental Relations. 3 cr. Problems resulting from overlapping governmental units; analysis of past and current devices of intergovernmental cooperation and sources and areas of conflict; political-governmental implications of intergovernmental relations; consideration of new proposals for meeting problems of intergovernmental relations. Prereq: 242 or cons instr.
350. Comparative Public Administration. 3 cr. Administrative systems of selected North American,


European, African, Asian, and Latin American countries on a comparative basis. Emphasis on the administrative recruitment, development, and policymaking; developmental planning; and institution building.
351/551. Organization Theory and Practice. 3 cr. Analysis of organization theories and the role of organizations in contemporary society; processes and environment of administration with emphasis on examining the administrative processes and decision-making in governmental organizations.
354/554. Public Personnel Administration. 3 cr. Problems and practices of selection, training, and organization of personnel administration; emphasis on Wisconsin. GDR:SS2

356/556. Fiscal Aspects of Government. 3 cr. The ways in which the U.S. national, state, and local governments determine their fiscal policies; emphasis on the governmental institutions and agencies involved, legislation and regulations, and the pattern of relationships affecting them. Case studies (e.g. Revenue Sharing) focusing on the consequences considered, and related to the budgetary process. GDR:SS2
358/558. The Budgetary Process. 3 cr. Determination and execution of public agency budgets; emphasis on preparation, authorization, and political considerations of the government agency budget; emphasis on Wisconsin.
361/561. Major Governments of Western Europe. 3 cr. Comparative study of the governments and politics of the United Kingdom, France, and the Federal Republic of Germany. GDR:SS1
364/564(NW), Government and Politics of the Soviet Union. 3 cr. Russian national and Marxist influences on the development of the Soviet state and Soviet concept of democracy, the role of the Communist Party and the formal, institutional machinery of government; a critical analysis of the Leninist, Stalinist, and post-Stalinist periods. GDR:SS1
370(NW). Politics in Asia. 3 cr. Political institutions, leadership, socioeconomic problems, and international relations of selected Asian countries. GDR:SS1
380. International Politics: The Foreign Policy of the United States. 3 cr. International and internal forces underlying the foreign policy of the United States; relating U.S. aims and policies to other important states and regions of the world.
382. United Nations at Work. 1 to 3 cr. Studies in historical roots, philosophy, charter, and peacekeeping role of the United Nations; optional Model UN participation, special fee required with 3 cr . or with Module 3. Module 1: UN Charter and Human Rights, 1 cr. Module 2: Global Issues, 1 cr. Module 3: Model UN, 1 cr.
384/584. International Politics. The Foreign Policy of the Soviet Union. 3 cr. An analysis of the Russian national and Marxist bases of the foreign policy of the Soviet Union.
391. American Political Thought to 1865. 3 cr. GDR:HU3 392. American Political Thought Since 1865. 3 cr. GDR: HU3
393/593. Early Western Political Theory. 3 cr. A critical analysis of selected political thinkers of the Western World from the pre-Socratics through the Medieval Period, such as Protagoras, Socrates, Plato, Aristotle, Cicero, St. Augustine, St. Thomas, and Machiavelli. GDR:HU3

394/594. Modern Western Political Theory, 3 cr. A critical analysis of selected political thinkers of the Western World from the Reformation to the Contemporary period, such as Luther, Calvin, Bodin, Montesquieu, Hobbes, Locke, Rousseau, Bure, Hume, Bentham, Mill, Hegal, Marx, and Lenin. GDR:HU3
395/595. Topics in Contemporary Political Theory. 3 cr . Advanced level analysis of current problems and topics in political theory.
396/596. Radical and Utopian Politics. 3 cr . Selected revolutionary movements, leading actors in revolutionary dramas, and radical and Utopian blueprints of future societies.
397. Methods of Policy Analysis. 3 cr. Systematic methods, techniques, and tools for public policy evaluation; policy analysis as service to decision-makers, analysts in the policy and political processes. Prereq: 102 or 314, statistics, or cons instr.
411/611. American Constitutional Law I. 3 cr. Topical treatment of American Constitutional development as exemplified by Supreme Court decisions; detailed examination of selected judicial decisions interpreting the Constitution with consideration of the political and governmental implications of such decisions; constitutionalism and judicial review; the commerce clause; the powers of the national executive, legislative and judicial branches.
412/612. American Constitutional Law II. 3 cr. Same as Political Science 411, covering civil liberties and civil rights; due process of law; equal protection of the laws.
450. Administrative Law. 3 cr . The study of the rules and procedures that govern administrative decision-making. Special attention is paid to the Administrative Procedure Act and leading Supreme Court cases.
454. Problems of Local Government Administration. 3 cr . Theory and practice of local government administration; contrasts and comparisons with state and national public administration; emphasis on Wisconsin. Prereq: 242 or cons instr.
455. Internship in Government. 1 to 6 cr . The student will spend the bulk of his/her time working with a local, regional, state, or federal agency under the supervision of the instructor; a research paper on a topic previously agreed on with the instructor will be completed. Number of credits will be determined by the instructor.
490. Selected Problems in Political Science. 3 cr . Intensive examination of problems in political thought or political activities. Topics will be announced each semester.
497/697. Scope and Methods of Political Science. 3 cr . Examination of political science as a discipline through consideration of the materials, approaches, methods, and modes of presentation used in contemporary research. GDR:SS1
499. Special Work. 1 to 3 cr . Upperclass students majoring or minoring in political science may, by agreement with the chair of the Political Science Department, arrange for special out-of-class work for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project.
796. Special Work. 1 to 3 cr . Graduate students may, by agreement with the chair, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project.

## PROFESSIONAL EDUCATION PROGRAM <br> See Education.

## PSYCHOLOGY <br> (College of Letters and Science)

Paul Schwieger, Chair
Room D-240, Science Building
Phone: (715) 346-2883
Faculty: Bayne, C. Dietrich, Elsenrath, M. Fang, Hekmat, Douglas Henderson, J. Holmes, S. Holmes, Johnston, Kortenkamp, Leafgren, Lerand, Lubitz, Mosier, R. Paul Olson, Plonsky, Rowe, Schwieger, Sudevan, Tierney.

## Psychology Major

Consists of 34 credits:

1. Psychology 110, 300, 301, 375, 389.
2. At least one course from each of the following groupings:
a. Psychology 250, 260, 320.
b. Psychology 310, 325, 330, 335.
c. Psychology $400,452$.
3. Nine additional elective psychology credits which may include courses from $a, b$, and $c$ above, not used to satisfy the particular grouping requirement.

## Psychology Major with Emphasis in Human Services

Consists of at least 43 credits, including:

1. The requirements for the major as defined above.
2. Psychology 350, 351, 401, 402, 480, and 482. These courses will fulfill the required 9 elective credits in the psychology major (3. above).

## Psychology Major with Industrial/Organizational

 EmphasisConsists of at least 52 credits.

1. Psychology 110, 300, 301, 320, 335, 345, 350, 375, 389, 400, and 3 additional elective credits in psychology.
2. Collateral courses: Business 380, 384, 385;

Communication 217; Economics 210 and 345.

## Psychology Minor

Consists of 18 credits in psychology, including Psychology 110.

## Psychology Minor for Teacher Certification <br> Consists of 25 credits:

1. Psychology $110,300,301,375,389,452$.
2. At least one course from each of the following groupings:
a. Psychology 250, 260, 320.
b. Psychology 310, 325, 330, 335.

## Courses in Psychology

100. Personal Effectiveness, Study Skills, and Adjustment to College. 3 cr . Assessment and development of learning skills, motivation, and adjustment to college. Two hrs lec, one hr lab per wk.
101. Study Skills. 1 cr . Development of skills in textbook comprehension, lecture notetaking, memory, listening, preparation for examinations, time management, and systematic methods of study. One hr per wk in class; additional half-hour appointments to be arranged. Does not count toward the major or minor in psychology, nor toward the social science general degree requirement.
102. Career Exploration and Decision-Making. 1 cr . A systematic process for career decision-making, including assessment of ability, interests, and values; research leading to evaluation of career alternatives, and independent exploration of academic majors.
103. General Psychology. 3 cr . The study of experience and behavior, GDR:SS1
104. Psychology of Women. 3 cr . Research and theory concerned with women's personality, roles, and capacity; emphasis on socialization and sex role development. Prereq: 110. GDR:SS1
105. Psychology of Adjustment, 3 cr. Nature of adjustment and the conditions related to mental health in normal persons. Prereq: 110. GDR:SS1
106. Psychology of Sexual Behavior. 3 cr. Psychological aspects of sexual behaviors, responses, and attitudes, including psychosexual development, varieties of sexual experience, basic physiology, sexual problems and therapy, and psychological factors in contraception, conception, pregnancy, and childbirth. Prereq: 110. GDR:PE/HE
107. Introduction to Development Psychology. 3 cr. Survey of growth and development; physical, perceptual cognitive, linguistic, emotional, and social development; emphasis on human development from conception to adulthood. Prereq: 110. GDR:SS1
108. Consciousness. 3 cr. Psychological-neurophysiological research and theories about various states of consciousness, such as sleep, dreams, mental imagery, and mystical states; altering consciousness through hypnosis, psychedelic drugs, biofeedback and meditation. Prereq: 110.
109. Parapsychology, 3 cr. Extrasensory perception (telepathy, clairvoyance, precognition, retrocognition); psychokinesis ('mind over matter'); psychic healing; out-of-body experiences; death and near-death experiences; trance mediums; reincarnation. Prereq: So st.
110. Psychoactive Drugs and Behavior. 3 cr. Introduction to psychopharmacology; examination of effects of commonly used drugs on the central nervous system, behavior, and the motivation for administration, consumption, and abuse of legal and illegal drugs. Prereq. 110 or cons instr. GDR:PE/HE

300/500. Statistics for Psychologists. 4 cr . Calculation and interpretation of measures of central tendency, variability, correlation, and regression in psychological research; hypothesis testing and estimation from large and small samples; analysis of variance; forms of experimental design. Three hrs lec, two hrs lab per wk. Prereq: 110, and Math 100 or a suitable placement text score.
301. Theories of Personality, 3 cr. Contemporary approaches to the study of behavior, clinical and experimental contributions to the understanding of the personality and its structure. Prereq: 110 .
310/510. Cognitive Processes. 3 cr. The role of hypothesis formation in memory, verbal learning, concept formation and attainment, problem solving, and language with special emphasis on human learning. Prereq. $110 ; 370 / 570$ or $375 / 575$ is required for graduate students and is recommended for all students.
315. The Psychology of Adolescence. 3 cr . Behavior of adolescents; emphasis on the physiological and cultural determinants of personality and consideration of the problem of adjustment encountered by youth in society. Prereq. 110.
320. Social Psychology. 3 cr. Individual behavior as a function of the social environment; the effects of learning, cognition, motivation, and perception in the development of interpersonal behavior. Prereq. 110. GDR:SSI
321. Environmental Psychology. 3 cr. Empirical and theoretical relationships between human behavior and experience and the physical environment; environment perception; environmental influences on individual development and social interaction; interaction with natural and built, rural and urban environments. Prereq: 110.
325. Neuropsychology. 3 cr. Neurological basis of betavior, emphasis on the principles of central nervous system activity that underlie perception, motivation, learning, and cognition. Prereq: 110 .
330. Perception. 3 cr. Fundamental concepts of perception, with special emphasis on vision; experimental findings, theoretical interpretations, and demonstration of the ways in which man perceives his environment. Prereq. 110. GDR:SS1
335. Motivation and Emotion. 3 cr. The nature and development of emotion, attitude, motive, and the role of these processes in thinking and behavior. Prereq: 110.
340. Comparative Psychology. 3 cr. Similarities and differences in animal behavior among phyla, especially as they relate to human behavior; instincts, learning, sensation, and functional organization of the nervous system compared phylogenetically. Prereq. 110 .
345. Industrial Psychology. 3 cr. Job analysis; selecting, training, and evaluating workers; employee motivation and morale; leadership and organizations; fatigue, safety, and the working environment; consumer behavior; engineering psychology. Prereq. 110.
350/550. Theory of Psychological Testing. 3 cr .
Characteristics of psychological tests; study of the most widely used intelligence, aptitude, interest, and personality tests. Prereq: Two courses in psychology or cons instr.
351. Abnormal Psychology. 3 cr. Behavior disorders, including the psychoses, neuroses, character disorders, and mental deficiencies. Prereq: 250 , or cons instr.
360/560. Behavior Problems in Children: Prevention and Modification. 4 cr . Nature and origin of behavior problems in children, and an examination of strategies for their prevention and modification; practicum experiences with handicapped children. Prereq, 260 or cons instr.
361/561. Mental Retardation and Developmental
Disabilities. 3 cr. Physiological, cognitive, emotional, and social aspects of mental retardation and developmental disabilities. Prereq: 110 or cons instr.
370. Human Memory. 3 cr. Theory and research dealing with the encoding, storage, and retrieval of information; sensory memory; short-term and long-term memory; forgetting; nature and structure of knowledge; physiology of memory. Prereq; 110 or cons instr.
375/575. Learning. 3 cr. Simple and complex learning, including conditioning, sensory-motor learning, language learning, problem solving, with emphasis on contemporary theories. Prereq. 110.
385/585. Health Psychology. 3 cr. Contribution of environmental and psychological factors to the etiology, treatment, and prevention of disease. Prereq: 110.
389. Experimental Psychology. 3 cr. An introduction to the principles of experimental design with practice in conducting research, analyzing results, and writing research reports. Two hrs lec, two hrs lab per wk. Prereq: 300.
393. Genocide: Psycho-Historical Foundations. 3 cr . Analysis of the scientific/technological foundations of political totalitarianism. GDR:TCI BA BS
399. Special Work. Upperclass students majoring or minoring in psychology may, by agreement with the chair, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project.
400. Advanced Experimental Psychology. 3 cr. Theory and techniques of advanced experimental design and methods of statistical analysis; consolidation through practice and procedures acquired in 389 including independent research. Two hrs lec, two hrs lab per wk. Prereq: 389.
401/601. Introduction to Counseling and Psychotherapy. 3 cr. Major approaches to counseling and psychotherapy; theory, research, evaluation, and demonstration. Prereq; 250 , or cons instr.
402/602. Practicum in Counseling and Psychotherapy. 3 cr . Supervised field work in counseling and psychotherapy. Prereq: 401 and cons instr.
452. History, Systems, and Contemporary Issues. 3 cr . History of major systems and areas of psychology; current trends of theory and research; a senior paper is required. Prereq: Sr st; 389 or cons instr.
460/660. Developmental Psychology Seminar. 3 cr. Research experiences in physiological, perceptual, cognitive, emotional, and social development; emphasis on human behavior from infancy to adulthood. Prereq: 260, or cons instr.
465/665. Psychology of Late Adulthood. 3 cr . Changes in psychological processes and behavior as a function of aging; methods of studying the aging process; research paper or experience in working with the elderly required. Prereq: 110 and cons instr.
480/680. Behavior Modification. 3 cr. Clinical application of behavior theory and research in the treatment of phobias, anxiety, depressions, delinquencies, psychosis, language and other behavior disorders, including such topics as desensitization therapies, assertive training, token economics, biofeedback, and self-control. Prereq: 110.
482/682. Practicum in Behavior Therapy. 3 cr. Clinical application of behavior modification principles in the treatment of behavior disorders. Prereq: 480 and cons instr.
485/685. Behavioral Medicine. 3 cr . Theory, research, and assessment of psychological factors contributing to the etiology of specific disorders. Topics may include hypertension, coronary prone behavior, obesity, pain, and sleep disorders. Prereq: 480/680 or cons instr.
490. Seminar: Fields of Psychology. 2 or 3 cr. Discussion of theory and research in psychology as they apply to general and special areas of study. A subtitle indicating the subjects will be added each time the course is offered; may be taken for credit more than once as subject matter changes. Prereq: 110 and cons instr.
491/691. Workshop. 1 to 5 cr . A subtitle will be added to describe the area considered each time the course is offered. May be repeated for credit under different subtitles.
796. Special Work, Graduate students may, by prior agreement with the instructor, the chair and the chair of the student's major department, arrange for special study for which credit may be allowed on the basis of 1 credit
for each week, or its equivalent, devoted exclusively to a special project.

## PUBLIC ADMINISTRATION AND POLICY ANALYSIS

(College of Letters and Science)

Dennis D. Riley, Coordinator
Room 482, Collins Classroom Center
Phone: (715) 346-2013
Public administration and policy analysis is an interdisciplinary program, offering both a major and a minor, administered by the Political Science Department. It is designed for students interested in public service or graduate education in this area.

## Public Administration and Policy Analysis Major

Consists of at least 40 credits distributed as follows:

1. Organizational Environment, 12 credits:
a. Introduction, 6 credits: Political Science 102, 250.
b. Personnel/Organizational Relationships, 3 credits: Business 384; Political Science 351, 354; Psychology 320; Sociology 310, 315.
c. Budget/Fiscal, 3 credits: Economics 311 ; Political Science 356, 358.
2. Political Environment, 9 credits in three groups:
a. American: Political Science 101.
b. State/Local: Political Science 242.
c. Executive/Legislative: Political Science 310, 320.
d. Judicial: Political Science 212, 313.
e. Urban/Metro/Intergovernmental: Political Science 341, 342, 344.
3. Tools of Analysis, (at least 7 credits, one course in each of the following groups):
a. Policy Analysis: Political Science 397.
b. Statistics: Economics 310; Mathematics 355; Psychology 300; Sociology 351.
c. Computers: Computer Science $100,101 / 102,110$, $112,113$.
4. Concentration Area. Select ONE with approval of the coordinator, 12 credits:
a. Public Policy Analysis: Business 370; Economics 311, 315, 328, 430, 433; Political Science 304, 306, 314, 455, 497.
b. Public Planning: Geography 373; Natural Resources 480; Political Science 304, 341, 342, 344, 455; Sociology 260, 300, 356, 357, 358.
c. Personnel Administration: Economics 345, 346; Political Science 315, 455; Psychology 240, 335, 345, 350, 401; Sociology 270, 315.
d. Resources and the Environment: Economics 204; Geography 340, 368; History 366; Natural Resources 370, 371, 372, 473, 480; Philosophy 380; Political Science 304, 455.
e. Public Finance Administration: Business 210, 211, 318, 320; Economics 311, 312; Political Science 356, 358, 455.
f. Special: With approval of the coordinator, select courses from FOUR areas, a. through e. above.
To be admitted and retained as a major, and to be accepted for graduation, you must have a grade point average of 2.00 (' C ') or higher in ALL courses taken within the major regardless of declaration of academic bankruptcy. The department chair may allow exceptions.

Public Administration and Policy Analysis Minor
Take at least 28 credits in parts 1,2 , and 3 of the major, as described above.

## RECREATION

See Health Promotion/Physical Education.

## RELIGIOUS STUDIES

## (College of Letters and Science)

Thomas W. Overholt, Coordinator
Room 420, Collins Classroom Center
Phone: (715) 346-3806
Faculty: Alexander, Billings, Fadner, Overholt.
Courses in religious studies are administered by the Philosophy Department.

## Philosophy Major with Concentration in Religious

## Studies

Consists of a minimum of 33 credits including:

1. History: Philosophy 217.
2. Logic: Philosophy 121 or 322 .
3. Value Theory: One course from Philosophy 220, 303, 305, Religious Studies 310.
4. Systematic: One course from Philosophy $306,310,312$, $318,320$.
5. The religious studies concentration:
a. Historical background: Religious Studies 103 or 104; and 100 or Philosophy 105.
b. Phenomenology of religion: One course from Religious Studies $102,316,330$.
c. Western religious thought, Religious Studies 301, 311, or 321.
d. The remaining 9 credits are to be selected, with the advice of the departmental adviser, from religious studies and the following collateral courses: Anthropology 320; Comparative Literature 240, History 316; Philosophy $105,320,335,337,338$; Sociology 431.

## Religious Studies Minor

Consists of a minimum of 18 credits:

1. At least one course selected from each of the following three groups:
a, Non-Western religious traditions: Religious Studies 100, 316; Philosophy 105.
b. Western Religious traditions: Religious Studies 101, 103, 104.
c. Religion in human life and culture: Religious Studies $102,301,310,311,315,321,330$.
2. At least 9 additional credits from religious studies courses and collateral courses* to be selected with the advice of the departmental adviser.
Religious Studies Minor for Teacher Certification
Consists of a minimum of 22 credits including:
3. Five courses distributed as follows among three groups:
a. Non-Western religious traditions: Religious Studies 100; and one from Phílosophy 105, 335, 337, 338, Religious Studies 316.
b. Western religious traditions: Religious Studies 101.
c. Religion in human life and culture: Religious Studies 102 and 310 or 311 ).
4. At least 7 additional credits at the 300 -level from religious studies courses and collateral courses* to be selected with the advice of the departmental adviser.

One of these credits must be an independent study (Religious Studies 399) focusing on conceptual, pedagogical, and legal aspects of the teaching of religious studies in the public schools.

* Collateral courses Anthropology 320, Comparative Literature 240, History 316; Philosophy $105,320,335,337$, 338, Sociology 431.


## Courses in Religious Studies

100(NW). Religions of the World: Eastern. 3 cr. A survey of the ideas and practices of major Eastern religions: Hinduism and Buddhism. GDR:HU3
101. Religions of the World: Western. 3 cr . A survey of the ideas and practices of major Western religions: Judaism, Christianity, Islam. GDR:HU3
102. Varieties of Religions Experience, 3 cr. An examination of various forms of religious experience and expression, such as the sense of the "holy,' ritual activities, and myth, to discover the meaning of these phenomena in and for human life. GDR:HU3
103. Introduction to the Old Testament. 3 cr. A study of the literature of the Old Testament in the context of the historical and cultural background out of which it came.
104. Introduction to the New Testament. 3 cr. A study of the literature of the New Testament in the context of the historical and cultural background out of which it came.
301. Contemporary Religious Thought. 3 cr. Major themes of the Western religious traditions as addressed in the works of significant 20th century thinkers. GDR:HU3
310. Religion and Moral Problems. 3 cr. Principles of religious ethics and their application to specific moral problems, such as birth control, abortion, war, civil disobedience, and violence. GDR:HU3
311. Religion in America. 3 cr. A consideration of the interdependence and mutual influence of religion and culture in American history. GDR:HU3
315. Religion and Literature. 3 cr. A study of basic patterns of religious experience and belief, such as mysticism, evil and guilt, death and rebirth, cosmos and chaos; and their role in works of contemporary writers, such as Conrad, Camus, Golding, and Hesse. GDR:HU3
316(NW). Native American Religions. 3 cr. An examination of the religious ideas and practices of selected Native American tribes. GDR:HU3
321. Studies in Religion. 3 cr. Selected topics of significance in the study of religion in human life and culture. Specific content will be indicated by subtitle; may be taken more than once under different subtitles.

## GDR:HU3

330. Sexual Images and Myths in Religion. 3 cr. A study of religious symbolism, with emphasis on the use of male and female models and the portrayal of sexual roles in religious myths. GDR:HU3
331. Independent Study, 1 to 3 cr. Individual work in religious studies on a special problem, theme, thinker, or period of particular interest to the student may be arranged with an instructor in the program, in consultation with the chair of the Philosophy Department. Number of credits will depend on the scope of the project.
For more course listings in religious studies, see the Latent Course List at the end of this section.

RESOURCE MANAGEMENT
See Natural Resources.

R.O.T.C. (Reserve Officers Training Corps)<br>See Military Science.

## RUSSIAN

See Foreign Language.

## RUSSIAN AND EAST CENTRAL EUROPEAN STUDIES (College of Letters and Science)

Robert F. Price, Coordinator
Room 410, Collins Classroom Center
Phone: (715) 346-3050

## Russian and East Central European Studies (RECES) Major <br> Consists of at least 34 credits:

1. Content courses: At least 24 credits selected from at least three fields, with no more than 9 credits in any one field:
a. Geography 330.
b. History 337, 338, 339, 340.
c. Philosophy 331, 332.
d. Political Science 364, 384.
e. Russian 331*, 360*, 370*, 493*. (*These courses can be taken only once for credit toward the RECES major or minor.)
f. Russian and East Central European Studies 399.
2. Related courses: 10 credits chosen after consulting with the RECES coordinator from such related courses as: Economics 367, History 341, 342.
3. Collateral requirements: Two semesters of skills courses in Russian, or any other language of the area, beyond the first year level.

## Russian and East Central European Studies Minor <br> Consists of at least 24 credits:

1. Content courses: At least 16 credits with no more than six credits in any one field. (See 1. above.)
2. Related courses: 8 credits chosen after consulting with the RECES coordinator.
3. Collateral requirements: Two semesters of Russian, or any other language of the area.
If you plan to earn a major in Russian and East Central European studies as well as a major in a traditional discipline, you should expect to have to earn from 10 to 15 credits beyond the minimum of 120 credits required for a degree (plus required physical education).

## Courses in Russian and East Central European Studies

297. Soviet Seminar. 3 cr. The Soviet Union and East Central Europe. Open to students who are going to participate in the trip to Eastern Europe within the framework of the Soviet seminar. Prereq: So st.
298. Soviet Seminar. 3 cr. Same as 297, except, offered at the junior-senior level.
299. Special Work. Upperclass students majoring in Russian and East Central European studies may, by
agreement with the Russian and East Central European studies adviser, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or -its equivalent, devoted exclusively to a special project.

SAFETY EDUCATION<br>See Health Promotion/Physical Education.

## SEMESTER ABROAD

See International Programs.

## SMALL CITY ANALYSIS (College of Letters and Science)

Edward J. Miller and Robert P. Wolensky, Coordinators
Room 451 and Room 476, Collins Classroom Center
Phone (715) 346-3130, 346-2708

## Small City Analysis Minor

Consists of a minimum of 25 credits:

1. Core Courses, 12 credits:
a. Area Courses: 6 credits chosen from Geography 373, Natural Resources 480, Political Science 341, Sociology 356.
b. Affiliate Courses: 6 credits chosen from Forestry 333; Geography 367; Natural Resources 474, 495; Political Science 242, 344; Sociology 300, 357, 358, 363.
2. Analytic Skills, 9 credits:
a. Computer Information Systems: 3 credits selected from Computer Information Systems: 101/102, 110, 112, 113.
b. Research Methods: 3 credits selected from Economics 310, 430; Geography 276; Political Science 497; Sociology 250, 351; Psychology 300; Mathematics 355.
c. Policy Analysis/Management: $\mathbf{3}$ credits selected from Business 380; Political Science 250, 397, 454.
3. Internship/Independent Research: 3 credits selected from Political Science 455, 499; Sociology 499; Geography 399; Natural Resources 499. Internship or independent research must be focused on a topic related to small cities.
4. Simulation/Seminar: 1 credit of a small city simulation or seminar approved by one of the coordinators.

## SOCIAL SCIENCE

 (College of Letters and Science)William Skelton, Coordinator
Room 410, College of Professional Studies Building Phone: (715) 346-4490
A social science major may be earned in either of two ways. If you are working toward teacher certification, select alternative A or B listed below in order to meet Wisconsin certification requirements for high school social studies teachers.

## Social Science Major

(Without teacher certification) consists of the following:

1. Meet requirements for a minor in one of the following fields: anthropology, economics, history, political science, sociology, sociology and anthropology.
2. Earn 6 or more credits in each of three social science
fields listed below, but do not include the field you have selected for your minor:
a. Anthropology.
b. Economics.
c. Geography (human), consisting of Geography 110, plus 3 credits in human geography courses numbered 300 or above.
d. History (in addition to 6 history credits necessary to meet the general degree requirements).
e. Political Science.
f. Psychology.
g. Sociology.
3. Sufficient additional credits to total 45 or more, with at least 15 in courses numbered 300 or above.

## Broad-Field Social Science Major for Teacher <br> Certification

(For teaching in grades 7-12) consists of a minimum of 54 social science credits from the following subjects: anthropology, economics, geography (human), history, political science, psychology and sociology. Select alternative A or B.

## Alternative A:

1. A major (minimum of 34 credits) in one of the subject areas listed above and
2. A minimum of 20 credits distributed over at least two of the other social science subjects.
3. At least 12 credits must be in history and/or political science.
Alternative B:
4. A minor (minimum of 22 credits) in one of the social science subjects listed above and
5. A minimum of 32 credits distributed over at least three of the other social science subjects.
6. At least 12 credits must be in history and/or political science.
This "broad-field" social science major will permit teaching in only the major field, the minor field, and the fusion courses. (The fusion courses are those drawn from several of the social science disciplines and, therefore, require a composite preparation in social science. Fusion courses include civics, social problems, American problems, area studies, vital issues, etc.) In addition, broad-field social science majors may be certified to teach in any of the social science disciplines in which they have completed 15 credits.
For certification in the "broad-field" social sciences, Wisconsin statutes require instruction in conservation and cooperatives. These requirements (normally Economics 210 or 372, and Natural Resources 370) are described in the Education section of this catalog.

## Social Science Minor

Consists of 24 credits, 6 credits in each of the following social studies areas:

1. Economics: Required-Economics 210; Elective-Economics 211 or any 3-credit course numbered 300 or above approved by the social science adviser.
2. Geography: Required-Geography 110; Elective-any 3credit course in human geography numbered 300 or above, approved by the social science adviser.
3. Political Science: Required-Political Science 101; Elective-any 3-credit course numbered 300 or above approved by the social science adviser.
4. Sociology and Anthropology: Required-Sociology 101; Elective-any 3 -credit course numbered 300 or above
approved by the social science adviser.
NOTE: This minor does not meet Wisconsin certification requirements for social studies teachers.

## Certification to Teach Civics (Grades 7-12)

Complete one of the following three alternatives:

1. Meet the requirements for the broad-field social science major.
2. Complete the political science minor (a minimum of 22 credits).
3. Complete a minimum of 42 credits in social science courses distributed as follows:
a. History: Complete the history minor ( 24 credits) with History 211 and 212 as part of the requirement.
b. Economics. 6 credits.
c. Political Science: 6 credits.
d. Sociology and Anthropology: 6 credits.

## Certification to Teach Social Problems

(Grades 7-12)
Complete one of the following two alternatives.

1. Meet the requirements for the broad-field social science major.
2. Complete a minimum of 42 credits in social science courses distributed as follows:
a. History: Complete the history minor ( 24 credits) with History 211 and 212 as part of the requirement.
b. Economics 6 credits.
c. Political Science: 6 credits.
d. Sociology and Anthropology: 6 credits.

## SOCIOLOGY

## (College of Letters and Science)

Eugene Clark, Sociology and Anthropology
Department Chair
Room 488, Collins Classroom Center
Phone: (715) 346-3060
Faculty: Bablitch, Bishop, E. Clark, Coe, Coppinger, Enright, Fisher, Galeski, T. Johnson, Moffatt, John Moore, G. Skelton, Throckmorton, Wendt, Wolensky.
The major and minors and the courses offered in anthropology are listed under that title earlier in this catalog.

## Sociology Major

Consists of a minimum of 34 credits in sociology courses including:

1. Required, Sociology 101, 350, 351, 352.
2. Select at least 3 credits from each of the following areas:
a. Mierosociology (social psychology/social processes): Sociology 224, 225, 310, 311, 315, 359.
b. Macrosociology (social structure/institutions): Sociology $240,300,302,327,356,357$.
c. Social Problems/Issues: Sociology 102, 230, 260, 261, $262,265,270,305,308,328,332,333,366,368,373$, 460.
d. Comparative / Cross-Cultural: Sociology 322, 343, 370.
3. Select 9 additional elective credits in sociology. This may include courses from $a, b, c$, and $d$ above that are not used to satisfy the particular area requirement; or choose from Sociology $295,312,340,358,361,362$, $363,367,395,467,468,490,494,495,497-499$.
4. Earn at least 18 credits in courses numbered 300 and above.
5. For teacher certification in sociology, the requirements are the same as above.

## Sociology Minor

Consists of a minimum of 18 credits. Sociology 101 and 350 are required. Additional credits are electives.

## Sociology and Anthropology Minor

Consists of a minimum of 18 credits. Sociology 101, Anthropology 101, Sociology 350 OR Anthropology 450 are required. Additional credits are electives.

## Sociology Minor for Teacher Certification

Consists of 25 credits. Take Sociology 101, 350, 351, 352 plus one three-credit course from EACH of the four areas listed in the major: microsociology, macrosociology, social problems/issues, and comparative/cross-cultural.

## Gerontology Minor

Consists of 25 credits. Biology 319, PEX 319, Psychology 465 , Sociology 265 and 366 are required. Select 12 elective credits from the following (no more than 6 credits may be from any one discipline): Communicative Disorders 352, Economics 328, Home Economics Education 390, Food and Nutrition 458, Political Science 306, Psychology 491, Sociology 260, 308, 328, 367, 460, 467, 497-499.

## Sociology Emphasis Areas

In addition to a major in sociology, you may select an emphasis consisting of 12 or more credits in a specified area. Six of these credits may count toward the 34 -credit major. The emphases are:

1. Social Psychology: 310, 311, 315, 322.
2. Deviance and Social Control: 230, 332, 333, 368, 490 (Deviance).
3. Family and Socialization: 224, 225, 240, 322, 343, 468.
4. Urban and Community: $260,300,356,357,358$; Anthropology 350.
5. Social Work: $261,262,361,362,363,494,495$.

If you are preparing for specialized graduate studies, a professional school, or a specific career, you should request assignment to an adviser who is knowledgable in that area to help you select your study program.
To be accepted as a major or minor at the beginning of the junior year, retained and approved for graduation, you must have a minimum grade point average of 2.00 ( 2.75 to student teach) in the major. The department chair may allow exceptions on a conditional basis.
You may petition the department chair to accept course work done at other institutions, but no more than one-half the credits applied to your major may be earned outside this university. The department chair may allow modifications to this rule.
You may take courses out of normal class-level sequence only if you have approval from your adviser and instructor.

## Courses in Sociology

100. Forum in Sociology or Social Work. 1 cr . Lectures on and discussions of current social issues or topics in sociology and social work. A subtitle will be added each time the course is offered. May be repeated under different subtitles for a maximum of 3 credits. Two hrs per wk or equiv. Pass-Fail ONLY.
101. Introduction to Sociology. 3 cr . Sociology as a special field of social science, social relations, and social systems; the organization of societies and other human groupings; fundamentals of sociological investigation, dealing with the
underlying premises, concepts, logic, and methods of sociology. GDR:SSI
102. Social Problems. 3 cr . Theories explaining social and personal disorganization and deviation; selected contemporary problems analyzed and related to their social contexts. GDR:SS1
103. Sociology of Childhood. 3 cr . Socialization processes in the early years; impact of social and cultural forces on child-rearing practices and outcomes; child welfare. Prereq: 101 or 102. GDR:SS1
104. Sociology of Adolescence. 3 cr . Socialization processes in the adolescent years; impact of social and cultural forces on adolescent issues and problems. Prereq: 101 or 102. GDR:SSI
105. Criminology. 3 cr . Analysis of crime as an institution, with reference to the behavior of those who define, engage in, or become the victims of criminal behavior. Prereq: 101 or 102. GDR:SS1
106. Marriage and the Family. 2 or 3 cr . Institutional variations of marriage and family; the contributions of behavioral sciences to understanding the processes of courtship and marriage interaction. Prereq: 101 or 102 and So st. GDR:SS1
107. Population Problems. 3 cr. Demography, population theory, trends, and analysis; United States and world population. Prereq: 101 or 102 or Economics 210.
GDR:SS1
108. Introduction to the Field of Social Work. 3 cr . Development of social welfare; contemporary public and private programs and appropriate settings; philosophy and principles of social work. Prereq: 101 or 102, or Anthropology 101, or cons instr. GDR:SS2

109. Social Welfare Policies and Programs. 3 cr. Development and philosophy of social welfare as an institutional system; critical analysis of programs, policies and issues; their interrelationship with other aspects of the social system. Prereq: 261 or cons instr.
110. Social Problems of Aging and Old Age. 3 cr. Factors that account for the changed position of the aged in society; analysis of problems of the aged and proposed solutions. Prereq: 101 or 102 or cons instr. GDR:SS1
111. Minority Groups. 2 or 3 cr. The role of minorities in society, their influence, impact, and relationship to the larger society. Prereq: 101 or 102. GDR:SS1
112. Special Topics in Sociology. 1 to 3 cr. Selected topics in sociology will be examined. A subtitle indicating the topic will be added each time the course is offered; may be taken for credit more than once as subject matter changes. Prereq: 3 cr in sociology or anthropology or cons instr.
113. The American Community. 2 or 3 cr. Community organization and the social processes influencing community behavior and change. Prereq: 101 or 102 or cons instr. GDR:SS1
114. Political Sociology. 3 cr. Empirical and theoretical analysis of the social bases, distribution, and management of political power in industrial societies. Prereq. 101 or 102 or cons instr.
115. Minority/Majority Relations. 1 cr. Emphasis on awareness and understanding of values, life-styles, and contributions of various minority groups, including women. Lectures and discussions by faculty and guest lecturers. No grade will be given except Pass or Fail; attendance is required for Pass. Prereq: Jr st or cons instr.
308/508. Sociology of Medicine. 3 cr. Analyses of the social organization of medicine and health care delivery systems, including the social processes and conditions of disease and health, such as adaptations to illness, the sick role, and the doctor-patient relationship. Prereq: 101 or 102 or cons instr. GDR:SS2
116. Social Psychology. 3 cr. Social learning and social habits in relationship to the development of the social self in groups: interaction, perception, motivation, attitudes, values, communication, roles in interpersonal relations. Prereq: 101 or 102 or cons instr. GDR:SS1
117. Collective Behavior. 2 or 3 cr . The sociology of organized and unorganized social actions; the mob, crowd, mass behavior and social movements; the dynamics of mass persuasion. Prereq. 101 or 102 or cons instr.
118. Propaganda and Public Opinion. 3 cr. Theories and facts regarding propaganda and public opinion, mass communication and censorship, and a study of measurement and control of public opinion. Prereq: 101 or 102 or cons instr.
119. Group Dynamics. 3 cr. Analysis of small groups including leadership and group interaction; research techniques. Prereq: 101 or cons instr. GDR:SS2
322(NW). Culture and Personality. 3 cr. Development of personality in relation to patterns of cultures and subcultures in which one grows up; materials will be drawn from literate and nonliterate cultures. Credit may not be earned in both 322 and Anthropology 312. GDR:SS1
120. Social Inequality. 3 cr. Analysis of patterns of inequality in the distribution of power, rewards, and opportunities between classes and other groups. Prereq: 101 or 102 or cons instr. GDR:SS1
121. Poverty, Welfare, Social Insurance. 2 or 3 cr. Study of poverty in the United States; income maintenance programs including social security, unemployment insurance, workers' compensation, pension plans, and social assistance; health insurance. Credit may not be earned in both Sociology 328 and Economics 328. Prereq. 9 cr in Sociology or Economics 210 or cons instr. GDR:SS2
122. Juvenile Delinquency. 3 cr. Definition, scope, types and sociological explanations of juvenile delinquency in regard to both its lone and gang forms, and a study of delinquency control techniques. Prereq. 101 or 102 or cons instr.
123. Corrections. 2 or 3 cr. Analysis of the institutionalized responses to criminal behavior through which society attempts to control and treat offenders. Prereq: 230 or 332.
124. Field Work and/or Community Research. 2 to 4 cr . Research or field work planned and carried out by a class (no individual research) under close supervision of the instructor. Topic will be announced each time the course is offered. Prereq: 250 or cons instr.
125. The Family: Cultural Perspectives. 2 or 3 cr. The family as a social institution, its place in different cultures and social strata, the impact of industrialization and urbanization. Credit may not be earned in both 343 and Anthro 343. Prereq: 101 or 102 or cons instr.
350/550. Sociological Theory. 3 cr. History, content, construction, and application of sociological theories. Prereq: 101 or cons instr.
351/551. Social statistics. 4 cr. Descriptive and inferential statistics, use of statistical software in analyses of sociological data. Three hrs lec, two hrs lab per wk. Prereq: 350 or cons instr.
352/552. Research Methods. 3 cr. A critical examination and application of the social research process from problem formulation to data analysis; includes computer application. Prereq: 350 and 351 or cons instr.
126. Urban Sociology. 3 cr. Comparative and historical approach to cities; urban spatial structure, temporal patterns and population characteristics; ecological factors; the social structure and psychological aspects of urban metropolis; implications for policy and planning. Prereq: 101 or 102 or cons instr.
127. Sociology of Planning, 3 cr. Social context of policymaking and planning process; theoretical approaches to planning; planning and social change, specific topics in planning (city and regional, social service, environment). Prereq. 101 or 102 or cons instr. GDR:SS2
128. Regional Sociology. 2 or 3 cr. Area-based statistical indices and characteristics, rural patterns and limits of urban dominance, evidence of continuing historic and ethnic tradition, as used by sociologists and anthropologists to develop convenient units for social, cultural, and suocultural analyses. Prereq. 101 or 102 or cons instr.
129. Bureaucracy. 3 cr. Analysis of the structure and functioning of complex organizations in contemporary society. Prereq: 101 or 102 or cons instr. GDR:SS2
130. Social Work Methods, Casework and Group Work. 3 cr. Generic principles of social work microsystems; concepts and practice of casework with individuals and families, interviewing, relationships, social diagnosis, and treatment; group work practice, principles of model development, diagnosis, and treatment. Prereq: 261.
131. Social Work Methods: Community Organization and Social Service Administration. 3 cr . Generic principles of social work macrosystems including planning, action, and advocacy; social service administrative concerns including interorganizational relationships, and intraorganizational issues including supervision, consultation, research, and continuing education. Prereq: 261.
132. Rural Social Work. 3 cr. Evaluation of nonmetropolitan, regional social services and delivery systems; characteristics of rural populations and community analysis; development of social work generalist concept and the occupational function in nonmetropolitan areas. Prereq: 261 or cons instr.
133. Sociology of Aging. 3 cr . Analysis of age cohorts, age-grading and age-norms, age changes in their situational contexts. Prereq: 101 or 102 or cons instr. GDR:SS2
134. Sociology of Middle Age. 3 cr . Structural analysis of the relationship between social institutions and middle-aged persons; analysis of predictable midife events. Prereq; 101 or 102 or cons instr.
368/568. Sociology of Mental Health. 3 cr . Sociological perspectives and interpretations in the nature and causes of mental disorders. Theories of controlling mental illness, the development of mental health policies in the United States and strategies of preventive and community psychiatry. Prereq: 101 or 102 or cons instr. GDR:SS2
135. Sociocultural Change in Emergent Countries. 3 cr . Study of the problem and processes of development in emerging countries. Credit may not be earned in both 370 and Anthropology 370. Prereq: 101 or 102 or cons instr. GDR:SS1
136. Technology and Contemporary Social Problems. 3 cr. Examination of the social, cultural, and personal consequences of developments in selected technologies. A subtitle will be specified each time the course is offered, such as: nuclear, microelectronic, chemical, mechanical, or biological. May not be repeated for credit under different subtitles. GDR:TCI BA BS
137. Special Topics in Sociology. 1-3 cr. Selected topics in sociology will be examined. A subtitle indicating the topic will be added each time the course is offered; may be taken for credit more than once as subject matter changes.
460/660. Sociology of Work, Leisure, and Retirement. 3 cr. The nature and function of work, retirement as a process, preparation for and adjustment to retirement. Prereq: 9 cr in the social sciences or cons instr.
467/667. Social Gerontology. 3 cr. Critical issues in social gerontology; emphasis on industrialized societies; analysis of techniques for implementing programs and policies relating to the older population. Prereq: 9 cr in the social sciences or cons instr.
468/668. Problems in Family Interaction. 3 cr.
Examination of contemporary problems relating to the family field. Prereq: 9 cr in the social sciences or cons instr.
490/690. Seminar: Fields of Sociology. 2 or 3 cr . Theory and research in sociology as it applies to general and special areas of study. A subtitle indicating the subjects will be added each time the course is offered; may be taken for credit more than once as subject matter changes. Primarily for majors. Prereq: 9 cr in the social sciences or cons instr.
138. Social Work Practicum. 1 to 6 cr . Observation and social work practice under the guidance of cooperating
field placement supervisors in an approved social service agency; emphasis on guided social work. Students majoring in sociology, upon affirmative recommendation of the coordinator of field placement and the approval of the department chair, may apply for placement in a social service agency. Must be taken concurrently with 495. Prereq: 361.
139. Social Work Practicum Seminar, 1 cr. Weekly meetings of students currently in social work practicum (494) to discuss the application of social work practice theory to the agency setting, to increase knowledge of and identification with the social work profession. Concurrent enrollment in 494 is required. May be repeated for a maximum of 4 credits, total.
497-499. Special Work. Each 1 to 3 cr. Upperclass students majoring or minoring in sociology may, by agreement with the department chair, arrange for special out-of-class work, for which credit may be allowed on the basis of 1 credit for each week, or its equivalent, devoted exclusively to a special project. Each may be repeated up to a maximum of 6 credits.
Normally, students will not be permitted to present more than 6 credits in special work.
140. Sociological Analysis and Research.
141. Social Work and Social Administration.
142. Sociology of Knowledge.
143. Seminar in Adult Development and Socialization. 2 or 3 cr . Advanced study of selected topics in adult development and socialization; designed for persons involved in or preparing for the areas of program development and the administration of programs concerned with midlife and late maturity. Prereq: 9 cr in the social sciences or cons instr.
144. Independent Study. 1 to 3 cr . Designed to enrich and supplement the student's preparation in his area of specialization. Prereq: 9 cr in the social sciences and consent of the chair.
145. Thesis. 2 to 6 cr .

For more course listings in sociology, see the Latent Course List at the end of this section.

## SOCIOLOGY AND ANTHROPOLOGY

See Sociology.

SOIL SCIENCE
See Natural Resources.
SPANISH
See Foreign Language.
SPEECH
See Communication.
SPEECH PATHOLOGY AND AUDIOLOGY
See Communicative Disorders.

See Education-Teacher Certification.

## STUDENT TEACHING

See Education.

## TEACHER CERTIFICATION

See Education.

## TECHNICAL WRITING <br> (College of Letters and Science)

James A. Gifford, Coordinator
Room 429, Collins Classroom Center
Phone: (715) 346-2078
An interdisciplinary minor in technical writing is administered by the English Department.

## Technical Writing Minor

Consists of 24 credits:

1. Required courses, 12 credits: English 250 -Business Emphasis OR English 251; English 254, 354; Computer Information Systems 101, 102 with subtitles Word Processing OR Electronic Spreadsheet OR Database.
2. Electives: 12 credits selected from the following in consultation with the coordinator, with a maximum of 6 credits from any one department: Art 106; Communication 221, 321, 322, 365, 391, English 250 or 251 (not taken as required course), $350,352,399,498$ (maximum of 3 credits from 399 and 498 may be counted toward the minor); Instructional Resources 361; Natural Resources 369.
You should meet the general degree requirement for natural science by using courses from the following: Biology 101, 130, 160, Chemistry 101, 105,115 ; Physics $101,103,150$.

## THEATRE ARTS

(College of Fine Arts)
Arthur Hopper, Chair
Room B-107, Fine Arts Building
Phone: (715) 346-4429
Faculty: Bridgeman, Caldwell, Gingrasso, Hamilton, Hopper, James Moore, Nevins, Sherwin, Studd.
If you are majoring in theatre arts, you may pursue either the B.S. or B.A. degree. Select either the dance or drama option.
Departmental Core Courses consist of 9 credits as follows: Drama 171,2 credits of dance technique, 4 credits in nonperformance sections of Drama/Dance 126-426.

## Drama Option of Theatre Arts Major

Consists of 47 credits.

1. Departmental core (see above).
2. Theoretical studies, 15 credits from: Drama 162, 213, $215,351,352$.
3. Technique, 12 credits from: Drama 140 and 3 courses from Drama $172,242,243$, or 270.
4. Approved electives, 11 credits.

## Dance Option of Theatre Arts Major

Consists of 47 credits.

1. Departmental core (see above),
2. Theoretical studies, 20 credits from Dance 101,200 , $216,300,301$; two courses from Drama 242, 243, or 270.
3. Performance technique, 18 credits.
a. Proficiency Level IV in the major technical area (ballet, modern), i.e., completion of 304 or 306 with a minimum grade of "B."
b. Proficiency Level III in the minor technique area (ballet or modern), i.e., completion of 203 or 205 with a minimum grade of "B."
c. Approved electives to complete 18 credits.

## Drama Major for Teacher Certification in Theatre Arts

Consists of 48 credits.

1. Departmental core (see above).
2. Theoretical studies, 18 credits: Drama $162,213,215$, 351, 352, 383.
3. Technique courses, 18 credits: Drama $140,375,376$, and 9 credits chosen from Drama 172, 242, 243, 270.
4. Drama Education 382.

Drama education majors must have a declared minor or a second major.

## Drama and Drama Education Minor in Theatre Arts

Consists of 24 credits.

1. Drama $171,140,375$.
2. Three credits of (non-acting) 126-426.
3. Six credits of theatre history and/or dramatic literature.
4. Nine credits of guided electives.
5. Drama Edication 382 is required as part of the education sequence.

## Dance Minor in Theatre Arts

Consists of 26 credits.

1. Dance $101,201,216,301$.
2. EITHER Dance 105 or equiv, and 10 credits from 103 , $104,203,204,303,304,403,404$, proficiency of Level IV (204).
OR Dance 103 or equiv, and 10 credits from 105,106 , $205,206,305,306,405,406$; proficiency of Level IV (206).
3. Three credits of guided electives from dance theory, history, technique, or performance.

## Dance Minor for Teacher Certification <br> in Theatre Arts <br> Consists of 27 credits.

1. Dance $101,201,216,301$.
2. Dance Education $217,220,420$.
3. EITHER Dance 105 or equiv; and 6 credits from 103 , $104,203,204,303,304,403,404$;
OR Dance 103 or equiv; and 6 credits from 105, 106, 205, 206, 305, 306, 405, 406.
4. Two credits from Dance $211,212,227,309,327$.

## Courses in Dance

Notes: If you take a dance course for credit as a general physical education course to meet general degree requirements, it will NOT be counted in with the other 120 credits required for a degree.
Students minoring in dance must complete 120 credits for graduation PLUS sufficient credits to meet the general physical education requirement.
Also see listing under Dance Education,
101. History and Appreciation of Dance. 3 cr. Cultural history of dance with emphasis on the theory and philosophy of dance. Includes some laboratory experience in dance technique. GDR:HU1
103. Modern Dance I. 2 cr. Modern dance technique, composition, and improvisation. Three hrs per wk. One credit of 103 may be used toward the Phy Ed requirement. GDR:PE/AA
104. Modern Dance II. 2 cr. Continuation of 103. Three hrs per wk. May be repeated once with cons instr for a total of 4 credits. One credit of 104 may be used toward the physical education requirement. Prereq: 103 or cons instr. GDR:PE/AA
105. Ballet I. 2 cr . Basic barre exercises and floor work. Three hrs per wk. One credit of 105 may be used toward the Phy Ed requirement. GDR:PE/AA
106. Ballet II. 2 cr . Continuation of 105, with the addition of floor progressions and combinations. Three hrs per wk. May be repeated once with cons instr for a total of 4 credits. One credit of 106 may be used toward the Phy Ed requirement. Prereq: 105 or cons instr. GDR:PE/AA
108. Folk and Square Dance. 1 cr . Beginning international folk dance. Two hours per week. May be used toward Phy Ed requirement. GDR:PE/AA
110. Social Dance. 1 cr . Beginning ballroom dance. Two hrs per wk. May be used toward the Phy Ed requirement. GDR:PE/AA
114. Jazz I. 2 cr. Introductory experience in basic jazz dance vocabulary, and the stylistic elements of jazz movement.
115. Tap I. 2 cr. Introductory experience in basic tap vocabulary, technique, and stylistic elements.
126. Theatre Practicum for Dancers. 1 cr. Practical work in theatre production for the dancer by special arrangement with the instructor.
200. Body Fundamentals. 3 cr . Introduction to the basics of structural anatomy and the muscular and skeletal systems. Study of Ideokinesis, Alexander, Feldienkrais Techniques, and Bartaneiff Fundamentals.
203. Modern Dance III. 2 cr . Modern dance technique, composition and improvisation. Fours hrs per wk. May be repeated once with cons instr for a total of 4 credits. One credit of 203 may be used toward the Phy Ed requirement. Prereq: 104 or cons instr. GDR:PE/AA
204. Modern Dance IV. 2 cr. Continuation of 203. Four hrs per wk. May be repeated once with cons instr for a total of 4 credits. One credit of 204 may be used toward the Phy Ed requirement. Prereq: 203 or cons instr. GDR:PE/AA
205. Ballet III. 2 cr . Continuing instruction in barre and center floor combinations. Four hrs per wk. May bé repeated once with cons instr for a total of 4 credits. One credit of 205 may be used toward the Phy Ed requirement. Prereq: 106 or cons instr. GDR:PE/AA
206. Ballet IV. 2 cr. Continuation of 205. May be repeated once with cons instr for a total of 4 credits. One credit of 206 may be used toward the Phy Ed requirement. Prereq: 205 or cons instr. GDR:PE/AA
211. Beginning Specialty Dance and Stage Movement. 2 cr. Theatrical dance forms and period styles of movement. Three hrs per wk. Open only to theatre arts majors and minors, or by cons instr. One credit of 211 or 212 may be used toward the Phy Ed requirement. Prereq: So st.

## GDR:PE/AA

212. Advanced Specialty Dance and Stage Movement. 2 cr . Continuation of 211. See description above. One credit of 211 or 212 may be used toward the Phy Ed requirement.

Prereq: 211 or cons instr. GDR:PE/AA
214. Jazz II. 2 cr. Continuation of Dance 114. An intermediate-level dance technique course in the jazz idiom. Prereq: Dance 114 or cons instr.
215. Tap II. 2 cr. Continuation of Dance 115. An intermediate-level tap technique and style course. Prereq: Dance 115 or cons instr.
216. Survey of Historical Dance Styles. 2 cr. History of musical literature in relationship to historical dance forms; medieval through the 20th century. One hr lec, two hrs lab per wk. Prereq: Placement test; students with deficiencies must take Music 109.
226. Theatre Practicum for Dancers. 1 cr. Practical work in theatre production for the dancer by special arrangement with the instructor. Prereq: So st or cons instr.
227. Dance Workshop. 1 to 6 cr . The area of
concentration will appear as a subtitle each time the course is offered (tap, jazz, pointe, partnering, fundamentals of rhythm, et al); may be repeated for credit under different subtitles. Prereq: Cons instr. GDR:PE/AA
300. History of Dance in the 20th Century. 3 cr . A study emphasizing the relationship of 20th century dance to the other arts and humanities. Prereq: 101 or cons instr.
301. Dance Composition I. 3 cr. Beginning experience in creative manipulation of the basic elements of movement into brief choreographed forms. Fours hrs per wk. Prereq: 101, 216; or cons instr.
302. Dance Composition II. 3 cr . Continuation of 301. See description above. Prereq: 301 or cons instr.
303. Modern Dance V. 2 cr. Modern dance technique, composition, and improvisation. Four hrs per wk. May be repeated twice with cons instr for a total of 6 credits. One credit of 303 may be used toward the Phy Ed requirement. Prereq: Cons instr. GDR:PE/AA
304. Modern Dance VI. 2 cr . Continuation of 303. Fours hrs per wk. May be repeated twice with cons instr for a total of 6 credits. One credit of 304 may be used toward the Phy Ed requirement. Prereq: Cons instr. GDR:PE/AA
305. Ballet V. 2 cr . Advanced ballet techniques and combinations. May be repeated twice with cons instr for a total of 6 credits. One credit of 305 may be used toward the Phy Ed requirement. Prereq: Cons instr. GDR:PE/AA
306. Ballet VI. 2 cr. Continuation of 305. May be repeated twice with cons instr for a total of 6 credits. One credit of 306 may be used toward the Phy Ed requirement. Prereq: Cons instr. GDR:PE/AA
309. Dance Theatre. 2 cr . Performance experience in ballet and modern dance. Four hrs per wk. May be repeated twice with cons instr for a total of 6 credits. One credit of 309 may be used toward the Phy Ed requirement. Prereq: Audition with instr and cons instr and chair.
314. Jazz III. 2 cr. An advanced level jazz technique class emphasizing performance elements. Aimed at those students seeking professional-level dance training and experience. Prereq: 114, 214 and 206 or cons instr.
315. Tap III. 2 cr. Continuation of Dance 215. An advanced level tap technique and style course. Prereq: Dance 215 or cons instr.
317. Beginning Labanotation. 3 cr . Fundamentals of the Labanotation system of movement literacy to include the analysis, reading, performance, and notation of movement patterns. Beginning certification through the Dance

Notation Bureau is optional upon completion of the course. Three hrs per wk. Prereq. Cons instr.
318. Intermediate Labanotation. 3 cr. Continuation of 317 to include more complex reading, performances, and notations. Intermediate certification optional. Three hrs per wk. Prereq: 317.
326. Theatre Practicum for Dancers. 1 cr. Practical work in theatre production for the dancer by special arrangement with the instructor. Prereq. Jr st or cons instr.
327. Dance Workshop. 1 to 6 credits. Area of concentration will appear as a subtitle each time the course is offered (tap, jazz, pointe, partnering, fundamentals of rhythm, et al); may be repeated for credit under different subtitles. Prereq: Cons instr. GDR:PE/AA
399. Special Work. 1 to 6 cr. Students may, by agreement with the instructor and the chair of the Department of Theatre Arts, arrange for special out-of-class work on individual or group projects, for which credit may be given on the basis of 1 credit for every week, or its equivalent, devoted exclusively to the project. Subtitle will be listed each time the course is offered.
401. Dance Composition III. 3 cr . Continuation of 302 , with emphasis on practical experience in all aspects of the theatrical production of original choreography. Three hrs per wk. Prereq. 302, Drama 242, and cons instr; open to juniors with special permission of instr and chair.
403. Modern Dance VII. 2 cr. Continuation of 304. Four hrs per wk. May be repeated once for credit. Prereq: Cons instr. GDR:PE/AA
404. Modern Technique VIIL, 2 cr. Continuation of 403. Four hrs per wk. May be repeated once for credit. Prereq: Cons instr. GDR:PE/AA
405. Ballet VII. 2 cr. Continuation of 306. May be repeated once for credit. Prereq: Cons instr. GDR:PE/AA
406. Ballet VIII. 2 cr. Continuation of 405. May be repeated once for credit. Prereq: Cons instr, GDR:PE/AA
409. Dance Midwest. 2 cr. Performance experience in a touring dance company. Four hrs per wk. May be repeated four times for total of 8 credits. Prereq: Audition.
426. Theatre Practicum for Dancers. 1 cr. Practical work in theatre production for the dancer by special arrangement with the instructor. Prereq: Sr st or cons instr.

## Courses in Dance Education.

217. Methods of Teaching Recreational and Aerobic Dance. 2 cr. Techniques for teaching folk, square, social, and aerobic dance. Enrollment limited to majors in physical education, minors in recreation, and theatre arts majors and minors.
218. Dance in the Elementary School. 1 cr. Dance forms basic to a balanced elementary school physical education program. Two hrs per wk. Prereq: So st.
219. Aerobic Dance: Teaching Theories, Practice, and Assessment. 3 cr. Skills and knowledge leading to the development of anatomically and aerobically sound teaching theories and practices in aerobic dance for diverse populations; assessment and evaluation methods in aerobic dance instruction.
420/620. Dance: Teaching Theories and Practices. 3 cr . Fours hrs per wk. Skills and knowledge leading to teaching theories and practical experience. Prereq: Cons instr.

## Courses in Drama

Also see listing under Drama Education.
105. History and Appreciation of Theatre, 3 cr. An introductory study of the theatrical process from playwright to performance combined with an overview of theatre history. Some laboratory hours required.
126. Theatre Practicum. 1 cr . Credit earned for designated involvement in theatrical productions.
129. Performance Laboratory, 1-6 cr. Intensive laboratory experience in performance techniques. The area of concentration will appear as a subtitle each time the course is offered; may be repeated for credit under different subtitles. Prereq: To be determined with each subtitle.
140. Stagecraft. 3 cr. Basic stagecraft: the stage and its equipment; standard tools and shop equipment; basic materials and techniques of simple scenery construction; basic electrics and theatre sound. Two hrs lec, two hrs lab per wk, plus participation in University Theatre productions.
162. Introduction to Script Analysis. 3 cr. Introduction to analysis of a play's form, structure, style and meaning for use by actor, director, and/or designer; those responsible for turning a script into a theatrical performance.
171. Acting I. 3 cr. Introduction to art and craft of acting with special attention given to the development of vocal and physical technique.
172. Acting II. 3 cr. A continuation of Acting I with focus shifting to scene study and the interaction between characters. Prereq: 171 or cons instr.
213. Survey of Dramatic Literature I. 3 cr . Study of development of drama from its origins in Greece through the Renaissance. Representative plays studied in the context of their times. Prereq: So st. GDR:HU2
215. Survey of Dramatic Literature II, 3 cr. Study of development of drama from the Renaissance to present. Representative plays studied in the context of their times. Prereq. So st. GDR:HU2
226. Theatre Practicum. 1 cr . Credit earned for designated involvement in theatrical productions.
240. Stagecraft II. 3 cr . Advanced stagecraft and continuation of 140 , emphasizing more complex production techniques, special materials, and production flow planning. Two hrs lec, two hrs lab per wk, plus participation in University Theatre productions. Prereq: 140 or cons instr.
242. Stage Lighting. 3 cr. Theory and practice in the application of methods and principles of lighting for theatrical production. Two hrs lec, two hrs lab per wk. Prereq: 140 or 240 or cons instr.
243. Stage Costume Design and Construction. 3 cr. Study and application of the principles of design as applied to stage costume with emphasis on the drafting of patterns and construction of workable, stageworthy costumes. One hr lec, four hrs lab per wk. Prereq: So st.
249. Technical Theatre I. 3 cr. Introduction to the production craft of the theatre, offered under several subtitles. May be taken once for credit under each. Prereq: 140 or 240 or cons instr. Scene Design: two hrs lec, two hrs lab per wk. Scene Painting: one hr lec, four hrs lab per wk.
255. Introduction to Stage Costume. 3 cr. Development and fundamental principles of the art of costuming for the
stage in their relation to theory and practice. Two hrs lec, two hrs lab per wk. Prereq: So st.
270. Stage Make-up. 3 cr . An introduction to the purpose and application of theatrical make-up. Extensive practical experience through laboratory work.
271. Acting III. 3 cr . A continuation of Acting I and II. Focus is "characterization." Exercises and assignments are designed to develop the actor's ability to play a character other than himself. Prereq: 171, 172, or cons instr.
272. Acting IV. 3 cr. Focus is scene study with emphasis on playing of scenes from contemporary drama. Students must have knowledge of script analysis as the scenes' presented must reveal an understanding of the total play and how a particular scene relates to the play as a whole. Prereq: 162, 171, 172, 271, or cons instr.
326. Theatre Practicum. 1 cr . Credit earned for designated involvement in theatrical productions.
327/527. Fundamentals of Playwriting. 3 cr. Basic elements of the playwriting process; idea, structure, theme, plot, characterization, dialogue, language; project-writing and class criticism.
329/529. Theatre/Dance as a Popular Art. 3 cr. May be taken twice for a total of 6 credits. Team taught. Popular theatre from the viewpoint of the audience, the artists and producing groups (including theatre, dance, TV drama and film) through visits and tours to theatre/dance rehearsals, TV studios and motion pictures locations; activities to be supplemented with seminar appearances by actors, dancers, writers, directors, designers, producers and other theatre artists actively engaged in theatre as a popular art. Performance attendance and evaluation required. Also offered as part of UW-Stevens Point Overseas Studies program. Does not count toward the major or minor in drama. Prereq: Jr st or cons instr. GDR:HU1
332. Phonetics and Dialects. 3 cr . Emphasis on learning the International Phonetic Alphabet and its application in the use of stage dialects and accents. Prereq: Jr st, majors only, or cons instr.
349. Technical Theatre II. 3 cr . Continuation of 249. Advanced work in the production crafts of the theatre, offered under several subtitles; may be taken once for credit under each.

Scene Design. Two hrs lec, two hrs lab per wk.
Prereq: 249 (Scene) or cons instr.
Costume Design. One hr lec, four hrs lab per wk.
Prereq: 243 or cons instr.
Lighting Design. Two hrs lec, two hrs lab per wk.
Prereq: 242 or cons instr.
Theatre Sound. One hr lec, two hrs lab per wk. Prereq: 140 or 240 or cons instr.
$351 / 551$. History of Theatre I. 3 cr . Development of the arts and techniques of the theatre from the beginning through the Renaissance. GDR:HU1
352/552. History of Theatre II. 3 cr. Development of the arts and techniques of the theatre from the Renaissance to the present. GDR:HU1
370/570. Advanced Stage Make-up. 2 cr. Continuation of 270. Prereq: 171 and 270 , or cons instr.
371. Acting Styles 1. $\mathbf{3} \mathrm{cr}$. Theory and practice in the application of acting styles; emphasis on development of techniques through the rehearsal of Greek tragedy, Greek and Roman comedy, and Moliere. Prereq: 171, 172, 271, 272 , or cons instr.
372. Acting Styles II. 3 cr . Theory and practice in the application of acting styles; emphasis on development of techniques through the rehearsal of Restoration comedy and Shakespeare's comedies and tragedies. Prereq: 171, $172,271,272$, or cons instr.
375/575. Beginning Directing 1. 3 cr . Theory of directing; exercises in blocking and performance of scenes. Four hrs per wk. Prereq: 171, and at least 3 credits in dramatic literature ( 140 or 240 is recommended).
376/576. Beginning Directing II. 3 cr . Practice in directing scenes and one-act plays; development of skills in directing. Four hrs per wk. Prereq: 374 and 375, or cons instr.
383/583. Creative Dramatics. 3 cr. Philosophy and techniques of creative drama with emphasis on its relation to creative education in general:
399. Special Work. 1 to 6 cr . Upperclass students majoring or minoring in drama may, by agreement with the chair, arrange for special work on individual or group projects, for which credit may be given on the basis of 1 credit for every week, or its equivalent, devoted exclusively to the project.
410/610. Masters of the Theatre. 2 cr. Intensive study of one or more playwrights and/or designers and/or directors and/or actors. The subject will be determined by the instructor offering the course. A subtitle will be added each time the course is offered indicating the subject(s). May be taken more than once for credit as subject matter changes. Prereq: Sr st, or jr st and cons instr. GDR:HU1 412/612. Contemporary Theatre. 3 cr . The American and European theatre of the last few years; representative plays from the works of contemporary dramatists as well as analysis of current theatre trends. Prereq: Sr st, or jr st and cons instr. GDR:HU1
426. Theatre Practicum. 1 cr. Credit earned for designated involvement in theatrical productions.
449. Technical Theatre III. 3 cr. A continuation of 349. Special projects and techniques of handling advanced technical theatre problems, offered under several subtitles; may be taken once for credit under each.

Scene Design. Two hrs lec, two hrs lab per wk. Prereq:
249 (Costume and Lighting); and 349 (Scene); or cons instr.
Costume Design: One hr lec, four hrs lab per wk. Prereq: 349 (Costume) or cons instr.
Lighting Design. Two hrs lec, two hrs lab per wk. Prereq: 149 and 249 (Scene) and 349 (Lighting); or cons instr.
Technical Production. Three hrs lec per wk. Prereq: 240 and 249 (Scene and Lighting); cons instr.
Miscellaneous Technical Problems. Two hrs lec, two hrs lab per wk. Prereq: 9 credits in technical theatre courses and cons instr.
471. Acting Professionally. 3 cr . Course designed to familiarize the student with the knowledge needed to enter the acting profession. Resumes, auditions, contracts, unions, and places of employment are covered. Field trips to area professional theatres may be required. Prereq: 171, 172, 271, 272, cons instr.
472. Musical Theatre Production. 3 cr. Focus on special technical skills demanded of the musical stage which require combined talents of acting, voice and dance. Prereq: Must have basic voice and movement skills; 171, 172, 271, 272, and cons instr.

490/690. Seminar in Theatre, 3 cr. Research and discussion of specialized areas of theatre and drama. A subtitle indicating the subject(s) will be added each time the course is offered; may be taken more than once for credit as subject matter changes. Prereq. Sr st, or jr st and cons instr. GDR:HU1
725. Problems in Play Production. 3 cr . A lecturelaboratory course in the directing and mounting of productions.
770. Seminar. 3 cr, Selected studies and advanced theory in drama and interpretation. Subtitle indicating the subjects will be added each time the course is offered. May be taken more than once for credit as subject matter changes.
785. Creative Drama for Children. 3 cr. Survey of story materials; development of diction and body movernents; characterization and improvisation.
796. Independent Study. 1 to 3 cr. Designed to enrich and supplement the student's preparation in his area of specialization, regularly scheduled conferences with a staff supervisor.
799. Thesis. 2 to 6 cr.

## Course in Drama Education

382. Teaching Drama in the Secondary School. 3 cr. Aims, methods, materials, techniques, planning, organization, testing, etc., as applied to high school teaching.

## THEORY/COMPOSITION

See Music.

## WATER RESOURCES <br> See Natural Resources.

WELLNESS
See Health Promotion/Physical Education.
WILDLIFE
See Natural Resources.


## WOMEN'S STUDIES

(College of Letters and Science)
Katherine A. White, Coordinator
Room 439, Collins Classroom Center
Phone: (715) 346-4347
Faculty: Bayne, Fadner, Fish, Kemp, Pistono, Roberts, White

## Women's Studies Minor

Consists of 22 credits:

1. Women's Studies 105,300 , and 490 or 3 credits of 499.
2. Selections from the following:
a. English 102, 285.
b. History 313, 321 (subtitle: Witcheraft, Prostitution, and Rape), 385.
c. Human Development $166,367,372$.
d. Political Science 317.
e. Psychology 240.
f. Religious Studies 321 (subtitle: The Myth of the Hero), 330.
g. Sociology 240, 295 (subtitle: Sex Roles: Cross-Cultural Perspectives), 367, 468.
h. Women's Studies 396.

## Courses in Women's Studies

105. Introduction to Women's Studies. 3 cr. Socialization of individuals into sex roles and the reinforcement of these roles; status and role of women in contemporary American society in school, marriage, employment, and politics; examination of historical and cross-cultural materials. GDR:SS2
300/500. Topics in Women's Studies (Humanities Emphasis). 3 cr. Interdisciplinary examination of one of the major topics in Women's Studies. May be taken for credit twice under different subtitles. Prereq. 105 or cons instr, GDR: HU4
106. Practicum. 1 to 3 cr. Students may arrange through the Women's Studies coordinator to work with a community organization or agency directly involved in aiding women.
107. Seminar. 3 cr. The changing status of women in contemporary society; investigation of selected aspects of woman's role, e.g., in government, education, law, the family, the community; research involving reading and direct research projects, producing significant data or a seminar paper.
108. Special Work. 1 to 3 cr . Students minoring in women's studies may, by agreement with the women's studies coordinator, arrange for special work. Research will involve reading and direct research project, producing significant data or a seminar paper.

## WRITING <br> See English.

WRITING EMPHASIS (WE)
See General Degree Requirements.

## YOUTH PROGRAMMING AND CAMP MANAGEMENT

See NaturaI Resources-Resource Management or Natural Resources for the minor called Camp and Youth Agency Administration and Programming.

## Latent Course List <br> 159

## Latent Course List

The following courses have been placed in the latent course file. They have not been deleted from the curriculum, but classes on these topics have not been offered in recent years. The dates in parentheses following the course titles indicate the last catalog where the full course description appeared. If there is enough student interest, any of these courses can be offered again. Contact the various departments for more information.
Anthropology: 336, Peoples of Africa, 2-3 cr, (83-85); 337, Peoples of Asia, 2-3 cr, (83-85); 338, Peoples of the Pacific, 2-3 cr, (83-85).
Biology: 332/532, Paleobotany, 3 cr, (85-87); 364/564, Protozoology, 4 cr, (85-87); 381/581, Comparative Animal Physiology, $4 \mathrm{cr},(85-87) ; 383 / 583$, Human Reproduction, $3 \mathrm{cr},(85-87) ; 387 / 587$, Field and Laboratory Studies in Animal Ecology, 1 cr, (85-87).
Chemistry: 391, Seminar for Chemistry Majors in Teacher Education, $1 \mathrm{cr},(83-85)$; 492, Seminar for Chemistry Majors in Teacher Education, 1 cr , (83-85).

Comparative Literature: 231, Survey of Dramatic Literature: Tragedy, $3 \mathrm{cr},(83-85)$; 232, Survey of Dramatic Literature: Comedy, 3 cr , (83-85); 240, Literature of the Bible, 3 cr, (83-85); 250, Asian Literature, 3 cr , (83-85); 251, The Fiction of Asia, $3 \mathrm{cr},(83-85)$; 252, The Drama of Asia, 3 cr, (83-85); 253, The Poetry of Asia, 3 cr, (83-85); 300, Classical Poetry, 3 cr , (83-85); 301, Classical Prose, 3 cr, (83-85); 302, Medieval Literature in Translation, 3 cr, (83-85); 303, Literature of the Renaissance, 3 cr , (83-85); 324, Literature and the Arts, $3 \mathrm{cr},(83-85)$.

Economics: 323, Personal Finance, 3 cr, (83-85); 381, History of Economic Thought, 3 cr , (83-85)
Foreign Language: 301, Contrastive Linguistics, 3 cr, (8385).

Geography: 302/502, Southwest Pacific, 3 cr, (83-85); $326 / 526$, Historical Geography of the United States, 3 cr , (83-85); 329/529, South America, 3 cr, (83-85); 369/569, Political Geography, 3 cr ; (83-85).
Geology: 339/539, Fossil History of the Vertebrates, 3 cr , (83-85); 350, Geologic Field Methods, $3 \mathrm{cr},(83-85) ; 360$, Geomorphic Regions of the United States, 3 cr , (83-85).
German: 243, German Literature in Translation, 3 cr , (8385); 441, Survey of German Literature, 3 cr , (83-85); 442, Survey of German Literature, 3 cr , (83-85).

Greek: 105, New Testament Greek, 4 cr, (85-87); 106, New Testament Greek, 4 cr, (85-87).

History: 228/328, Resource Development and Policy in Europe, 2-3 cr, (85-87); 241/341, Problems in Russian Culture, 2-3 cr, (85-87); 288/388, Wisconsin Indians, 3 cr , (83-85); 300, Selected Historical Problems, Analysis and Writing, $3 \mathrm{cr},(85-87) ; 301 / 501$, Western Culture, 3 cr , (8587); 320/520, European Economic History, 3 cr , (85-87); 342, Polish Immigration to the United States, 3 cr, (85-87); $367 / 567$, The American Frontier, 3 cr , (85-87); 386/586 Problems in Immigration, Ethnic, and Family History, 2-3 cr, (85-87); 764, Readings and Problems in European History, $3 \mathrm{cr},(83-85) ; 765$, Readings and Problems in Russian History, 3 cr , (83-85); 766, Readings and Problems in Asian History, 3 cr , (83-85); 767, Readings and Problems in Latin American History, 3 cr ( 83-85); 768, Readings and Problems in African History, 3 cr, (83-85); 775, Theories of History, 3 cr , (83-85).

Mathematics and Computing: 348/548, Measurement and Computation for the Elementary School Teacher, 3 cr , (8587); 385/585, Historical Topics for the Elementary School Teacher, $3 \mathrm{cr},(85-87)$

Philosophy: 200, Intellectual Revolutions of the Modern World: Marx, Darwin, Freud, 3 cr, (83-85); 207, Classical Christian Metaphysics, $3 \mathrm{cr},(83-85)$; 230, Introduction to Philosophy of Education, $3 \mathrm{cr},(83-85) ; 314$, Moral Issues in Law and Social Policy, 3 cr, (83-85); 316, Philosophy and History, $3 \mathrm{cr},(83-85)$; 325, Educational Philosophy of Pragmatism, 3 cr , (83-85); 336, Contemporary Indian Thought, 3 cr , (83-85).

Physical Education: 250, History and Philosophy of
Physical Education, 2 cr, (85-87); 326, Practicum in Adapted Physical Education, 5 cr , (85-87); 365, Physical Education Curriculum, 2-3 cr , (85-87).

Religious Studies: 300, The Development of Christian Thought, 3 cr, (83-85); 320, Selected Topics in Biblical Studies, 3 cr , (83-85).

Russian: 243, Russian Literature in Translation, 3 cr, (8385).

Sociology: 375, Social Structure and Change in East Asia, $2-3 \mathrm{cr},(83-85)$; 431 , Sociology of Religion, 3 cr , (83-85); 445/645, Development of Social Thought, $3 \mathrm{cr},(83-85)$; 452/652, Laboratory in Social Research, 2-3 cr, (83-85); 702, Intergroup Relations, $3 \mathrm{cr},(83-85)$; 748, Theories of Society, 3 cr, (83-85).

Spanish: 243, Spanish Literature in Translation, 3 cr , (8385); 449, Poetry and Drama of the Golden Age, 3 cr, (8385); 450, Prose of the Golden Age, 3 cr , (83-85); 451/651, Cervantes, $3 \mathrm{cr},(83-85)$.



# More Academic Information 

## Academic Bankruptcy

This is a process you may go through if you have been suspended for at least a semester due to your low grade point average. Through academic bankruptcy you may have your prior academic record adjusted.
If you apply for academic bankruptcy, we:

- Apply toward graduation those courses in which you earned a "D" or better;
- Apply toward your prerequisites and general degree requirements, but not necessarily toward your major or minor, those courses in which you earned a " $D$ " or better; and
- Determine your cumulative grade point average from the courses you take after being readmitted.
We do, however, keep on your official record all of the work you have done at UW-Stevens Point. And we determine whether you are eligible for graduation honors on the basis of your grade point average in all of the courses you've taken.
You may exercise this option only once in your academic career. In order to graduate you must, after declaring academic bankruptcy, earn a minimum of 30 credits and maintain an overall point credit ratio of 2.00 in those credits. You must also earn sufficient credit points to bring your cumulative point credit ratio to 2.00 .
If you are receiving GI Bill benefits, consult your campus VA representative before electing this option. If you take it, you may have to repay the VA for past benefits you have received.


## Academic Classification

(See Year in School.)

## Academic Standing

If your current cumulative and semester grade point average is 2.00 (a " C " average) or above, you are in good academic standing.

## Adding a Course <br> (See Drop/Add/Withdrawal Procedures.)

## Advisers

When you enter UW-Stevens Point, you are assigned to an adviser who helps you arrange your academic program. Meet with your adviser each semester to discuss your course of study for the following semester and to obtain your adviser's signature so that you may register for courses. Your adviser can also help you review your academic progress, improve your abilities, meet the academic requirements for graduation, and make vocational plans. However, it is up to you to meet all college and university requirements, rules and regulations.
If you have not yet declared a major, work with an adviser from the Student Assistance Center, Room 103, Student Services Center. Once you declare a major, the chair of your major department assigns you to an adviser. In the College of Natural Resources, if you are a freshman or sophomore majoring in a subject other than paper science, the assistant to the dean is your adviser.
If you'd like additional academic advice, visit the Student Assistance Center in Room 103, Student Services Center. There you'll find information on general degree
requirements, majors, minors, professional programs at UW-Stevens Point, other colleges and universities, vocational centers, and careers. If you encounter academic difficulties, you are also welcome at the Counseling Center, Room 304, Delzell Hall.

## Attendance

Attend all your classes regularly. We do not have a system of permitted "cuts."
Your instructors will explain their specific attendance policies to you at the beginning of each course. Be sure to follow them. If you must be absent, tell your instructor why. If you can't reach your instructors in an emergency, visit the Student Assistance Center, Room 103, Student Services Center, or call them at (715) 346-3361.
If you don't make satisfactory arrangements, with your instructors regarding excessive absences, either your dean or the Student Assistance Center may dismiss you. If you are dismissed from a course, you receive an " $F$ "' in that course. If you are dismissed from the university, you receive an " $F$ " in all the courses you are taking.
If you take part in an off-campus trip by an authorized university group such as an athletic team, musical or dramatic organization, or a class, make appropriate arrangements in advance with the instructor of each class you will miss. The faculty or staff member in charge of your off-campus trip will leave with the Student. Assistance Center a list of the names of all students taking the trip.
If you are absent from classes because of emergencies, offcampus trips, illness, or the like, your instructors will give you a reasonable amount of help in making up the work you have missed.

## Auditing

"Auditing" means to attend class regularly without having to take exams, do laboratory work, participate in class discussions, or do any other classwork except listen. You may audit as many courses as you wish, up to 5 credits beyond the normal maximum study load. (See Study Loads.) You receive no academic credit for auditing a course, but you may take the course again later for credit.
To audit a course:

1. Receive the instructor's permission, and be sure that there's enough space in the class;
2. Register for the course as you would for any other course;
3. Between the first and eleventh day of class, fill out an audit form at the Registration Office and have it signed by both the instructor and the department chair;
4. Attend classes regularly, just as you would a credit course; (See Attendance.)
5. Follow all university regulations, just as you would if you were attending a course for credit;
6. If you meet these conditions, your student record will show 'audit"' for the course.

Note that you may neither change a course from "audit" to "credit" nor change it from "credit"' to "audit" after the eleventh day of classes. After auditing a course, you may seek credit by examination for some courses if you are enrolled at UW-Stevens Point at the time of the examination and pay the examination fee.
Audit fees are the same as for regular courses, with these exceptions:

- If you are 62 years of age or older, you pay no course fees, textbook rental fees, or parking fees. Contact the

Continuing Education and Outreach Office to register for courses.

- If you are a Wisconsin resident under age 62 but enrolled part time, you pay half the resident course fees for any courses which you audit. If you are a nonresident, you pay, in addition, the appropriate nonresident tuition.
- If you are a part-time student auditing some courses and taking others for credit, you pay no segregated fees for the courses you take for audit.
- If you enroll only for audited courses, you pay no segregated fees, nor are you eligible for the use of services supported by those fees (e.g., Health Services, University Center, and University Activities).
- You pay any special costs of instruction other than the normal fee. For example, in certain art courses you pay for art materials.


## Chemical and Hazardous Waste Exposure

Realize that if you go near chemicals (including hazardous wastes) you voluntarily expose yourself to these substances. You may need to change your routes or delay or avoid enrolling in specific classes in order to avoid exposing yourself, If you have a sensitive medical condition which could make exposure to these substances especially dangerous, it is extremely important that you take these precautions. Particularly avoid exposure if you are in your first trimester of pregnancy.

## Continuing Education and Outreach

If you are an adult who wishes to continue or renew your education, you may take one of the graduate or undergraduate courses offered through our Continuing Education and Outreach Office. We offer evening classes in 15 to 20 Central Wisconsin cities, as well as evening and Saturday courses on campus.
On-Campus Courses are listed in the regular UW-Stevens Point timetables. Fees for Wisconsin residents for the 1986 87 school year were $\$ 71.85$ per undergraduate credit and $\$ 110.75$ per graduate credit.
Off-Campus Courses generally meet once a week for 16 weeks, with each meeting lasting two and one-half hours. Fees for Wisconsin residents for the 1986-87 school year were $\$ 52.60$ per undergraduate credit and $\$ 91.50$ per graduate credit.

## Please note that:

- If you wish to work toward a degree, you must apply for admission through the UW-Stevens Point Admissions Office.
- If you are a full-time teacher, you may not receive more than 4 credits in any semester for correspondence, evening, and Saturday courses. Only your dean can approve an exception to this policy.
- If you are regularly enrolled, all correspondence, evening, and Saturday courses count toward your study load.
- You should consult with an adviser about what courses to take.
For further information, please contact the Continuing Education and Outreach Office, Room 103, Main Building, (715) 346-3717.


## Correspondence Courses

Although UW-Stevens Point does not offer correspondence courses, we do apply toward your degree the correspondence credits you earn through other accredited universities. See Admissions earlier in this catalog for
information on how many credits you may apply toward your degree. Ask your adviser to approve any correspondence courses you'd like to take. If you take correspondence courses while taking UW-Stevens Point courses, count the correspondence courses as part of your study load.

## Declaring a Major or Minor

If you are in a curriculum which requires that you declare a major, then declare your major by the time you have earned 56 credits (excluding physical education) toward graduation. To do this, fill in the appropriate blank on your registration card with the name of your major. To declare a minor, when you reach junior standing, write your minor on your registration card.
It is up to you to be sure that you meet all the requirements for your major and minor. In most fields, this means that, in order to graduate, you must achieve a cumulative grade point average of 2.00 or better in all courses required in each major and minor. However, some departments require higher grade point averages. To find out what you must earn in your department, read its major and minor requirements under Courses of Instruction earlier in this catalog. At least one semester before you graduate, check with each department in which you are majoring and minoring to make sure you are meeting all of their requirements.
If you are seeking teacher certification, you need to earn a 2.50 cumulative grade point average before you student teach. You also need a 2.75 grade point average in your major, minor, concentration, and education courses before you student teach. To be a student teaching intern, you need a 3.00 grade point average in your major, minor, concentration, and education courses.
Your department may discontinue you as a major candidate before you complete two-thirds of the credits required for your major and before you begin your senior year. To do so, they notify you in writing and send a copy of the notification to the Records Office. If you are in geod standing as a major during your junior year but do not continue to meet the standards of your department during your senior year, your department may discontinue you then as well.
Your department may also conditionally accept or retain you as a major candidate for your senior year. To do so, at the time that they accept you, they notify you in writing of the specific conditions you must meet. If you fail to satisfy these written conditions during your senior year, they may discontinue you as a candidate. To do so, they notify you in writing and send a copy of the notification to the Records Office.
If you believe that a department has acted unreasonably or unfairly on your application for major candidacy, talk with the dean of your college.

## Drop/Add/Withdrawal Procedures <br> Dropping and Adding Courses

You are expected to complete the courses for which you. register. However, during the first eight days of the semester you may add or drop courses with the approval of the department chair. You are also encouraged to consult with your adviser. (If you are on probation or have not met the standards of academic progress, you are required to obtain the signature of your adviser.)
Departments may require that you officially drop a course if you do not attend the first one to three class meetings.

Most departments do not want to hold seats for students who do not show up. See the current timetable for the policy of specific departments.
You may not add a class after the eighth day except for extenuating circumstances and only when approved by the department chair, instructor, and your adviser.
You may drop a course after the eighth day and through the ninth week of the semester after consultation with the instructor and your adviser. After the ninth week of classes, decisions on late drops will be made by the Student Assistance Center only if the reasons for dropping are serious illness, personal duress, or are clearly beyond your control.
Courses dropped during the first eight days will not appear on your transcript. You will receive a "W" for all courses dropped after the eighth day of the semester. Repeated occurrences of "W" may affect your ability to maintain standards of academic progress and may jeopardize your eligibility for financial aid. See Satisfactory Academic Progress later in this section of the catalog to determine the effect of courses not successfully completed.
(Note to advisers: Students may be unaware of the impact dropping and adding may have on their progress toward a degree. Encourage the students you advise to consult with you when they make program changes. Your approval is required to add a class after the eighth day because you are in a good position to evaluate the student's ability to enter a class late and successfully complete the class.)
You must follow the procedure established by the Registration Office to officially drop and add courses. Forms and instructions are available on the second day of classes. If you never attend or stop attending a course and do not offically drop the course, you will receive an " $F$ " in the course at the end of the semester.
All drop and add dates are prorated for courses that meet less than the full term.

## Withdrawing from UW-Stevens Point

If you decide to leave the university, contact the Student


Assistance Center, Room 103, Student Services Center to withdraw. You cannot officially withdraw from the university by simply leaving.
If you withdraw during the first eight days of the semester, no grades are earned or recorded on your transcript. After the eighth day and through the ninth week, you will receive a "W" for each course. After the ninth week, a grade of " $W$ "' will be assigned. However, in special circumstances and after consultation between the student and instructor, a grade of "I" may be assigned. Courses that end prior to your withdrawal are an exception, You will receive grades for courses completed prior to your withdrawal.
Repeated occurrences of "W" may affect your ability to maintain standards of academic progress and may jeopardize your financial aid eligibility, See Satisfactory Academic Progress in another section of this catalog to determine the effect of courses not successfully completed.
If you withdraw after the fifteenth week and after the end of the term for reasons of serious illness, personal duress, or for reasons clearly beyond your control, the Student Assistance Center, after consultation with the instructor, will assign a "W." However, in special circumstances and after consultation between the student and instructor a grade of " 1 " may be assigned.
If you stop attending school and do not officially withdraw, you will receive an " $F$ "' for those courses in which you are still registered.
If you withdraw after the eighth day of the semester, you will be considered a continuing student and may return for the next term without going through formal readmission.
Withdrawal dates are prorated for courses that meet less than the full term.

## Finals

All instructors meet with their classes during the final examination period at the time and place scheduled, either to give a final examination or to provide an alternative educational experience. A instructor may change the time or place of a final examination only with the approval of the appropriate dean.
If, due to illness or an emergency, a instructor is unable to give a scheduled examination, the instructor notifies the department chair and the dean and provides a make-up examination.
If you have three or more examinations on the same day, or if you have other problems with the examination schedule, your instructors may, at their discretion, change the schedule for you.

## Grade Review

If a instructor does not give you, by the end of the second week of class, a written statement of how grades are determined, or if you feel that your instructor does not assign grades as described on that written statement, you may appeal the grade you receive in the course.
First talk with your instructor about your concerns. If, after doing so, you are not satisfied, write a statement of the problem and request that your grade be reviewed. Send this to the coordinator for grade review in the Student Assistance Center, Room 103, Student Services Center. You may submit this appeal up until the end of the fourth week of classes in the following semester.
After the coordinator receives your request, the following
things take place:

1. You meet with the coordinator and discuss your grounds for appeal, the appeal process, and the options available to the Grade Review Subcommittee if the appeal is sustained;
2. The coordinator gives a copy of your appeal to your instructor and asks the instructor to respond to it in writing within 20 working days;
3. After 20 working days, the coordinator evaluates the allegations and determines whether your appeal is valid;
4. Then, if the coordinator concludes that a grade change may be warranted, or if the instructor has failed to respond in writing, the coordinator gives the Grade Review Subcommittee of the Academic Affairs Committee all relevant information and directs the members of the committee to investigate your allegations and determine whether they are valid.
The subcommittee usually reaches a decision by the end of the semester in which you make the appeal. If, however, one of the parties is not on campus that semester, it may take longer.
If the subcommittee or the instructor determines that special academic expertise is needed, the subcommittee solicits an independent evaluation in writing from three impartial experts appointed by the chair of the instructor's department in consultation with the instructor and the subcommittee chair. The subcommittee accepts the evaluation and recommendations of the impartial experts on matters of academic content whenever it asks for them.
After investigating your grievance, the subcommittee will inform both you and your instructor of its decision in writing. If it finds that a change of grade is warranted, it will also recommend to your instructor the appropriate grade change. If your instructor refuses to make the recommended grade change within 10 school days after being notified by the subcommittee, the subcommittee will do one or more of the following to protect your interests:
5. Attach to your permanent record and transcript a statement of the recommended change of grade and the reasons your instructor did not change the grade;
6. Exempt the challenged grade from being included in your grade point average, unless you want the grade to be included; and
7. Authorize your graduation minus the credit hours represented by the challenged grade, if that grade was an "F."
Grades
For every course you take, you receive a letter grade.

| Grade | Points | Grade | Points |
| :---: | :---: | :---: | :---: |
| A | 4.00 | C | 2.00 |
| A- | 3.67 | C- | 1.67 |
| B + | 3.33 | D + | 1.33 |
| B | 3.00 | D | 1.00 |
| B | 2.67 | F | 0.00 |
| C + | 2.33 |  |  |

To determine your grade point average (GPA):

1. Multiply the number of semester hours for each course you have taken times the point value of the grade you have received in each course;
2. Add the products for all your courses; and
3. Divide this sum by the number of semester hours you have taken.
We use your GPA to determine whether you are eligible for honors, for admission to certain majors, colleges, and curricula, and for determining your eligibility for
membership in those campus organizations for which scholastic achievement is a criterion.
At the end of each term, we mail a report of your grades (and, if applicable, a notice of probation or suspension) to you at your home address. Besides the grades listed above, you may also receive the following designations on your grade reports, none of which carry a point value:
S. You satisfactorily completed a noncredit course.

W You withdrew from a course after the end of the eighth day of classes. If you are a freshman and officially withdraw from the university, you receive a "W' for all courses you are taking at the time. (See also "WF" below.) If you drop a course before the end of the second week of classes, no mention of it appears on your record.
P You passed a pass/fail course and received credit for it. If you fail such a course you receive an "F" and earn no credit for it. (See Pass-Fail Grading later in this section.)
Inc Your work in a course in incomplete, and you have obtained your instructor's permission to complete the course. (See Incompletes later in this section.)
If you voluntarily stop attending a class at any time without completing the prescribed change of program procedure, you are considered as still registered, and you receive an " $F$ " in the course at the end of the semester.

## Graduation

If you are an undergraduate, apply for graduation at the beginning of your senior year (after you have earned 86 credits toward your degree, not counting required general physical education). You may pick up an application form in the Registration and Records Office. To graduate, you must receive the approval of your instructors during the term in which you complete your work.
To be eligible for the bachelor's degree, you must have a Point-Credit Ratio of 2.00 or better. We base your PointCredit Ratio on the number of credits you earn in courses which you pass (grade of "D" or better) at UW-Stevens Point and on the number of points you earn in these courses. The maximum ratio is 4.00 and the minimum is 1.00. If you want more information about the Point-Credit Ratio, contact the Registration and Records Office.
If you are a graduate student, follow the instructions listed under Graduation in The Graduate School section earlier in this catalog.

## Honors

## Graduation Honors

You may receive graduation honors on the basis of your grade point average for all the courses you have attempted, including college level work you attempted elsewhere. In the commencement ceremony you are recognized on the basis of the work which you complete before your final term. On your permanent record, from which we make transcripts, you are recognized on the basis of all the work you have done, including your final term.
Highest Honors are awarded for a grade point average of 3.90 or above; High Honors are awarded for a grade point average of 3.75 to 3.89 ; and Honors are awarded for a grade point average of 3.50 to 3.74 .

## Semester Honors

UW-Stevens Point faculty have established semester honors as part of their program to recognize students for outstanding academic achievement. To be eligible for semester honors, complete at least 12 semester hours of
work with passing grades or, if you are taking student teaching only, complete at least 10 semester hours of work. You are notified after the end of each semester in which you have been awarded semester honors.

## University Honors Program

The University Honors Program is open to all interested and qualified students. By participating in it, you may derive three important benefits:

- The stimulation of close intellectual association with other talented students and with faculty, in a variety of academic settings in addition to the traditional classroom.
- The personal satisfaction of meeting the challenge of honors work and of outstanding achievement.
- The notation in your university records, diploma, and transcript that you are a university honors graduate, which adds to your credentials and appeals to prospective graduate schools and employers.
If you meet any of the following criteria, you are eligible for the honors program.
As an entering first year student:
- High school graduation rank of 90 th percentile or above,
- ACT or other standardized test composite score in the 90th percentile or above, or
- Professional recommendation from a high school teacher or counselor.
As a continuing student:
- A cumulative grade point average of 3.50 or above,
- Recommendation of a faculty member, or
- Successful appeal to the University Honors Committee for admission.
To remain in the honors program, maintain a GPA of 3.50 or above. You may withdraw from the program at any time without losing credit for the honors work you have successfully completed.
To graduate as a university honors graduate, complete 15 or more credits of academic work in specially designed interdisciplinary honors courses. These courses may fulfill part of the general degree requirements. See Honors under Courses of Instruction earlier in this catalog for descriptions of the honors courses.
For further information on the University Honors Program write or visit the Academic Affairs Office, Room 202,
Main Building, (715) 346-4686. You can also contact the Philosophy Department, (715) 346-3340.
Some departments also provide departmental honors programs which involve 9 credits of work or more. Contact individual departments for further information on their programs.


## Incompletes

You receive an "Incomplete" if you have not finished your work in a course and have obtained your instructor's permission to complete the course. Your instructor will give you an "Incomplete" only if extenuating circumstances exist or if you need to extend your research or performance beyond the normal limits of a term. Your instructor will notify the department chair of the work you need to complete in order to receive credit.
You must remove an "Incomplete"' during your next semester in attendance, or it automatically becomes a failure. The Student Assistance Center may extend this time limit in consultation with your instructor, if you are
delayed for reasons beyond your control.
If you have received veterans benefits for a course in which you received an "Incomplete," you must refund those benefits to the Veterans Administration if you do not replace the "Incomplete" with a grade within 12 months.
To remove an "Incomplete" do not register in a subsequent semester to retake the course. Instead, arrange with your instructor to complete the work you have yet to do in the course. When you have completed the work satisfactorily, your instructor will report the removal of the "Incomplete" to the Registration and Records Office. You too should report your completion to the Registration and Records Office so that they may do appropriate follow-up.

## Interim Sessions and Mini-Courses

You may take a number of courses between semesters and during the period between the end of the school year and the beginning of summer school. Each session usually lasts about three weeks, and you may complete no more than 1 credit per week. For further information on interim session and mini-courses contact the Office of Continuing Education and Outreach.
International Study
See Courses of Instruction.

## Late Registration

You may register at UW-Stevens Point or add additional courses through the eighth day of classes in any semester.

## Minimum Acceptable Standards

You are in good academic standing if you have a semester and cumulative grade point average (GPA) of 2.00 ("C') or above. With a GPA at or above 2.00 you meet the minimum acceptable standards of UW-Stevens Point, and are not placed on probation.

## Nontraditional Students

If you have experienced a break in your education or if you are over 24 years of age and now wish to begin your college education, you are a nontraditional student. At our Nontraditional Student Services Office you can receive information on entrance requirements, financial aid, or any other problem which may keep you from attending UW-
Stevens Point or benefitting fully from our programs. For further information, see the Campus Directory and Resource Guide, visit the Nontraditional Student Services Office in the Dean Smith Room of the University Center or call them at (715) 346-2045.

## Pass/Fail Grading

Through the pass/fail grading program, you gain the opportunity to secure a broader, more liberal academic experience than is usually possible under the traditional, many-stepped grading program. As a result, you may take courses which are personally or intellectually attractive to you, without the pressure to secure and maintain a high grade point average. You may take courses of value outside your major in which your knowledge is not great enough to sustain a high letter grade. You may, in other words, experience learning for its own sake.
Register for the pass/fail option on or before the eleventh day of classes. You may not change either to or from pass/fail after the eleventh day of classes.
If you earn a " $P$ " in your course, you have passed it and been granted credit for it. We do not include a grade of " P " in calculating your grade point average (except for
certification of VA benefits). However, we do apply the credit you earn toward your degree.
If you earn an " $F$ "' in your course, you have failed it and not been granted credit for it. We do include a grade of ${ }^{\text {s }} \mathrm{F}$ " in calculating your grade point average.
Only undergraduate courses are included in the pass/fail program. You may select up to five pass/fail credits (other than required physical education) each semester. However, you may count no more than 20 credits from pass/fail courses (other than required physical education) toward your degree requirements.
If you are on probation, you may take a course on a pass/fail basis only if it is in required physical education or if the course is offered on pass/fail alone.
Count pass/fail courses only as electives. Count the credits you earn in them toward the total credits you need for a degree, but don't use such courses to satisfy any other degree requirements. For example, a course which applies toward the humanities requirement might be available on a pass/fail option. If you take it on an "A-F"' basis and earn a "D" or better, you may count the course toward your humanities requirement. If you take it under the pass/fail option and pass the course, you may not count it toward your humanities requirement. However, in both cases you may count the credits toward the total number of credits you need for your degree.
There are two exceptions to this rule.

1. You may satisfy your physical education/health enhancement requirements with pass/fail courses.
2. In certain departments you may be permitted to take up to two pass/fail courses in your major and one pass/fail course in your minor. Special registration is required at the Registration and Records Office.
To find out which courses and/or sections are available under the pass/fail option, and with what restrictions, check your timetable. Each department determines which courses to include in the program and under what conditions.
Departments provide the option of a standard grade in all courses offered under the pass/fail program except for those courses and sections which the Curriculum Committee has approved as pass/fail only.

## Placement Statistics

If you would like to know the placement or employment rates of past graduates of any UW-Stevens Point program, write or visit the Career Services Office, Room 134, Main Building, or call them at (715) 346-3136.

## Probation/Suspension

You will be placed on probation if:

1. You earn a semester grade point average less than 2.00 ,
2. You earn a cumulative grade point average less than 2.00 ,
3. You are admitted on probation,
4. You are a transfer student who does not have a 2.00 cumulative grade point average for all previous institutions, or
5. You are readmitted after being suspended for academic reasons.
Once placed on probation you must meet with your adviser by the end of the first week of classes of the next term you attend.
You will be suspended if:
6. You are on probation and your semester and cumulative
grade point average fall below 2.00 .
7. You are not in good standing at the end of a second consecutive semester on probation.
8. Your semester grade point average is less than 1.00 and your cumulative grade point average is less than 2.00 .
9. After being readmitted on probation following academic suspension, you earn less than a 2.00 grade point average in your first semester of attendance.
10. You are admitted on probation as a transfer student, and you earn less than a 2.00 grade point average in your first semester.
You may attend a summer session after being suspended. After completing the summer session, you may ask us to review your academic status. (Also see Declaring Academic Bankruptcy and How Do I Apply for Readmission?)

## Records (Privacy and Access)

The Family Education Rights and Privacy Act of November 20, 1974 (Buckley Amendment) entitles you to review "official records, files, and data directly related" to you which the university maintains. You may also request a hearing regarding any alleged "inaccurate, misleading, or inappropriate" information. In most circumstances, the university will not release information from your records to third parties without your consent or notice to you. An interpretation of the law is printed below, and copies of it are available at the reservation desk of the library and at the Student Assistance Center, Room 103, Student Services Center.
The Family Education Rights and Privacy Act of 1974, as amended, requires that you be advised of your rights concerning your education records and of certain categories of public information which the university has designated "directory information." This notice, in question and answer format, satisfies this requirement of the act.
As a student on the Stevens Point campus, what rights do $I$ have regarding my university records?
You have the right to inspect and review all your records which meet the act's definition of "education records."
What is the definition of "education records?"
Education records are all the records maintained by the university about you. There are six exceptions:
$\bullet$ Personal notes of University of Wisconsin staff and faculty.

- Employment records.
- Medical and counseling records used solely for treatment.
- Financial records of your parents.
- Confidential letters and statements or recommendations placed in your records prior to January 1, 1975.
- Confidential letters and statements or recommendations for admission, employment, or honorary recognition placed in your records after January 1, 1975, for which you have waived the right to inspect and review.
Is there any situation in which the university may insist that I waive my rights?
Under no condition may you be required to waive your rights under this act before receiving university service or benefits.


## Where are my records kept?

Records are not maintained in a central location on the campus. Requests to review your records must be made separately to each office which maintains your records. Your request must be made in writing and presented to the appropriate office. That office will have up to 45 days to
honor your request. For most students, these offices will include those of the registrar, your school or college dean, your major department, Protective Services, and any other campus office with which you have been in contact, such as Student Financial Aid or Housing.
What if I do not agree with what is in my records? You may challenge any information contained in your "education records" which you believe to be inaccurate, misleading, or inappropriate. This right does not extend to reviewing grades unless the grade assigned by your professor was inaccurately recorded in your records. You may also insert a statement in your record to explain any such material from your point of view. If you wish to challenge information in your file, you must make a written request for a hearing to the dean or director of the appropriate office. In most cases, the decision of the dean or director will be final. However, you may elect to file an appeal in writing to the Assistant Chancellor for Student Life who will review the decision only if a significant question of policy or compliance with the law appears to be raised by the case.
May I determine which third parties can view my education records?
Under the act, your prior written consent must be obtained before information may be disclosed to third parties unless they are exempted from this provision. These exceptions include:

- Requests from the University of Wisconsin-Stevens Point faculty and staff with a legitimate educational "need to know."
- Requests in accordance with a lawful subpoena or court order.
- Requests from representatives of agencies or organizations from which you have received financial aid.
- Requests from officials of other educational institutions in which you intend to enroll.
- Requests from other persons specifically exempted from the prior consent requirement of the act (certain federal and state officials, organizations conducting studies on behalf of the university, accrediting organizations).
- Parents who claim students as dependents under the Internal Revenue code of 1954, Section 152, and who provide proof of such status.
- Requests for "directory information" (please refer to the next question for an explanation).
What is meant by the term "directory information?"
The university, in accordance with the act, has designated the following categories of information about you as public unless you choose to exercise your right to have any or all of this information withheld. This information will be routinely released to any inquirer unless you request that all or part of this be withheld.
These categories are:
- Name.
- Home address.
- Home telephone number.
- Local address. (Students should keep current address on file in the Registration Office.)
- Local telephone number.
- Date and place of birth.
- Major/minor field of study, and college.
- Participation in officially recognized university activities and sports.
- Weight and height of members of athletics teams.
- Dates of attendance (including initial registration,
current classification and year, registration and withdrawal dates, graduation dates).
- Degrees and awards received (type of degree and date granted).
- The most recent previous educational agency or institution attended.
- Class schedule.
- Name of parents or guardian.
- High School graduation and year of graduation.

What kinds of inquiries does the university receive for "directory information?"
The university receives many inquiries for "directory information" from a variety of sources including friends, parents, relatives, prospective employers, graduate schools, honor societies, licensing agencies, government agencies, and news media. Please consider very carefully the consequences of any decision by you to remove these items from the list of "directory information." Should you decide to inform the university not to release any or all of this "directory information," any future request for such information from nonuniversity persons or organizations will be refused. For example, the university could not release your telephone number and address to a family member wishing to notify you of a serious illness or crisis in the family. A prospective employer requesting confirmation of your major field of study, address, or date of birth would also be denied access to such items, should you withdraw them from the list of "directory information." The university will honor your request to withhold any of the items listed above but cannot assume responsibility to contact you for subsequent permission to release them. Regardless of the effect upon you, the university assumes no liability of honoring your instructions that such information be withheld.
If you wish to file a form withdrawing some or all of the information in the "directory" classification, you should report to the Registrar's Office, Room 101, Student Services Center, and complete the necessary form. After you have filed this form, the registrar will notify the appropriate university offices and begin to comply with your wishes as soon as possible.
Where can I find out more information about the provisions of the act?
If you have any questions regarding the provisions of the act, you may contact either the Student Life Office, Delzell Hall, 346-2611, or the Registrar's Office, Room 101, Student Services Center, 346-4301.
Whom should I contact if I wish to make a complaint? If you believe that the university is not complying with the act, please direct your comment to the Assistant Chancellor for Student Life, telephone 346-4194.

## Repeating Courses

With the approval of your adviser, you may repeat a course in which you received an "'F." You may do so only once, unless the Student Assistance Center grants you an exception. (If you are in business, communicative disorders, physical education, or ROTC, you may also need department authorization; if you are a graduate student, the dean of graduate studies must approve your repeating a course.) By repeating the course you make only one adjustment of your grade point average, unless your dean grants a special exception.
You may not repeat a course in which you received a " $D$ " unless the Student Assistance Center or the others noted in
the last paragraph grant you prior authorization. You may not repeat a course in which you earned an " $A$," " $B$," or "C' unless required by your program.
If you repeat a course which you had initially completed here with a " $D$ " or " $F$," we figure only the credit and grade you earn in your second attempt in your grade point average. However, we do not expunge your original ' $D$ ' or "F" from your student record.
Before repeating a course, fill out the Request to Repeat Course Form available at the Registration and Records Office.

## Requirements

Your adviser and others at UW-Stevens Point are happy to help you plan your academic program. However, you are responsible for following UW-Stevens Point's regulations and successfully completing all your academic requirements.
In general, you may meet either the academic requirements approved for the semester before you first enroll or those approved later. But be sure to meet all of whichever set of requirements you choose. To find out what requirements have changed since this catalog went to press, ask your adviser. Here are some special situations:

1. If an external agency changes the requirements, meet the new requirements. For example, if the Department of Public Instruction changes the requirements for teacher certification, fulfill the new requirements.
2. If you re-enter UW-Stevens Point after being gone for two or more semesters, meet the requirements current when you re-enter. Note that if you enroll and then withdraw within the first two weeks of the semester, you are considered as not enrolled for that semester. a. If you have earned more than two-thirds of the credits toward your general degree requirements by the time you re-enter (not counting electives and courses toward your major/minor, you may ask to complete the degree requirements current when you first registered, Your dean approves such a request.
b. If you have completed more than half of the credits to fulfill your major/minor requirements by the time you re-enter, you may ask to complete the major/minor requirements current when you first registered. The chair of your department approves such a request.
3. If you feel that special circumstances warrant a change in your degree requirements, talk to your dean. If you feel that special circumstances warrant a change in your major/minor requirements, talk to your department chair.

## Residence Requirements

To be eligible for a bachelor's degree from UW Stevens Point, you must earn at least 30 of the total credits required for the degree (excluding required physical education) in residence or by extension at UW-Stevens Point.

## Satisfactory Academic Progress

You maintain satisfactory academic progress by earning credit (completing courses with a grade of "A' through "D" or "P") in a certain percentage of the total semester hours for which you have been enrolled at UW-Stevens Point. On the following table you will find the percentage of total credits which you must earn at each level of total enrolled semester hours.
Total
Enrolled
Semester Hours

18-30
31-60
61-90
91-120
121-150
151-180

Percent of Total Semester Hours
That Must Be Earned
$50 \%$
$60 \%$
$65 \%$
$70 \%$
$75 \%$
$83 \%$

We determine your academic progress in June. If you have not made satisfactory academic progress as defined by the table above, you are ineligible to receive financial aid until you earn enough credits to be making satisfactory academic progress.
You can determine your academic progress percentage from your last grade report, or you can ask for an evaluation by the Records Office. Keep seven things in mind as you consider whether you are maintaining satisfactory academic progress:

1. The total semester hours for which you are enrolled are all the semester hours for which you earn a grade of "A," "B," "C," "D," "F," "P," "I," 'W," "WF," or one of these grades followed by a + or -
2. Add your earned transfer credits to your UW-Stevens Point total semester hours to determine the percentage that is required. However, the percentage is applied only to UW- Stevens Point semester hours in determining academic progress.
3. When determining your academic progress, include in your totals any credits awarded by exam.
4. There are no exceptions to this policy for students who declare academic bankruptcy.
5. If you re-enter after being out of school for one or more semesters, you must be making satisfactory academic progess at the time you re-enter in order to qualify for financial aid.
6. If you have more than 180 total enrolled semester hours, you are not eligible for financial aid.
7. If you are found to be ineligible to receive financial aid due to unsatisfactory academic progress, you may appeal for special consideration if you feel there are extenuating circumstances. You will receive information about the appeal process when you get your notice of unsatisfactory progress. Your appeal must be submitted in writing with an explanation for the lack of progress and a plan for improved performance. If your appeal is successful, the Records Office will be informed and your financial aid eligibility, with possible special conditions, will be restored.

## Second Bachelor's Degree

If you have earned one bachelor's degree, you may earn a second by completing:

- 30 additional credits, and
- All requirements for the second degree.

You may use courses which you completed for your first degree to satisfy requirements for your second degree. The major completed must be acceptable for the second degree.

## Semester Hours/Credits

We use the semester hour to compute your study load. Each semester hour represents one hour of class work, or its equivalent in other forms of instruction, per week for one semester. We consider two, or sometimes three, hours of laboratory work the equivalent of one hour of class work. If you complete one semester hour's work with a grade of " $D$ ' or better, you earn one credit.

## Smoking

Students, faculty, and staff are not allowed to smoke in university classrooms. Your instructors ensure that no one smokes in any classroom or laboratory. However, you may smoke in designated smoking areas in academic buildings and, with permission, in faculty and administrative offices.

## Student Conduct

The Office of Student Conduct protects your rights as a student. If you believe that your rights have been violated, or if you have questions concerning your rights, write or visit this office on the first floor of Delzell Hall or call them at 346-3860.
You have the responsibility to act appropriately and responsibly. If your actions conflict with the welfare and integrity of UW- Stevens Point or disregard the rights of other members of the university community, including guests and visitors to the campus, you will face student conduct disciplinary proceedings.
You will find copies of the University of Wisconsin System disciplinary procedures and UW-Stevens Point's institutional policies under these procedures (Chapter UWSP 17) at each residence hall desk, the Reserve Desk of the Learning Resources Center, the Information Desk of the University Center, the offices of all academic deans, and the Office of Student Conduct. We urge you to read Chapter UW-SP 17, which is part of our contract with you, since it describes what constitutes violations of appropriate conduct on campus and at university activities.

## Study Load

An average study load per semester is 15 semester hours of courses (including work in correspondence, evening, and Saturday courses) plus one semester hour of physical education every other semester. If you register for 12 to 16 semester hours of courses each semester, plus 1 physical education credit each year, you are carrying an average course load.
If you want to take up to 18 or 20 semester hours of courses in a given semester (plus your required physical education credits), you may request permission to do so from the Student Assistance Center. They will grant permission only if your academic record warrants a special exception.
If you want to take over 20 credits, you may request permission from your dean. We grant such a request only for extraordinary reasons and only for a student who has long had an outstanding academic record.
In order to qualify for either Social Security benefits or full Veterans Benefits (Public Law 550), carry at least 12 semester hours of courses.

## Summer Sessions

From mid-May to mid-August you may take part in undergraduate or graduate summer school courses lasting from one to eight weeks. Classes generally meet Monday through Thursday. You may also take part in any of several summer session camp programs. Ask your adviser if credits in one of these would apply toward your requirements.
If you are a high school graduate not otherwise eligible for admission to UW-Stevens Point, you may establish your eligibility by attending summer school. Write to the Registration and Records Office, Room 101, Student Services Center, or call them at (715) 346-4301 for a summer session timetable.

## Suspension

See Probation/Suspension.

## Transcripts

Your transcript is an official, certified copy of your academic record. It shows all the courses which you have attempted; all credits, grades, and degrees you have earned; and whether you have been placed on academic probation or suspension.
You may order copies of your transcript by submitting a written request to the Registration and Records Office, Room 101, Student Services Center. If you order one transcript, you pay $\$ 3.00$ for it. If you order more than one at a time, you pay $\$ 3.00$ for the first and 50 cents for each additional copy. In order to receive a transcript, grade report, or diploma, you must have paid all your financial obligations to UW-Stevens Point.

## Transferred Credits

We use only the credits and grade points you earn at UWStevens Point in determining your grade point average.
We use only the credits and grade points you earn at UWStevens Point in determining your grade point average. Transfer credits and grades are included in the calculation of the grade point average in most majors and minors and in the determination of graduation honors.
You may use credits transferred from an accredited institution for courses in which you earned a "D" or better toward graduation. You may also use them to meet your requirements and prerequisites for specific courses, but not necessarily toward your major.
Because different institutions use different course numbering systems, we may not consider a course numbered 300 or above at another institution to be equivalent to a course we number 300 or above here. Direct any questions about the transfer of your credits to the Admissions Office, Room 102, Student Services Center.
If you earn the last credits toward your degree at another 'college or university, file a transcript of these credits in our Registration and Records Office, Room 101, Student Services Center, within 30 days after the date of the UWStevens Point graduation. If you fail to meet this deadline, you will not graduate until a later graduation.

## Withdrawing from UW-Stevens Point

 See Drop/Add/Withdrawal Procedures.
## Year in School

You may determine your year in school by totaling the number of credits you have earned toward your degree. Include your physical education credits as well as any credits you transferred from other institutions.
Credits
$0-14$
$15-29$
$30-43$
$44-59$
$60-73$
$74-89$
$90-103$
104 and over

Year in School
First semester freshman
Second semester freshman
First semester sophomore
Second semester sophomore
First semester junior
Second semester junior
First semester senior
Second semester senior

In this catalog we use "upperclass students" to refer to those who have earned 60 credits or more (juniors and seniors).

## Resources and Opportunities

You have a great many resources and opportunities available to you at UWStevens Point. In the following section you will find a listing of these student services, along with their locations and phone numbers. In addition, a 32 page Student Services Directory which details on-campus and off-campus resources is contained in your campus phone book. You receive a copy when you enroll at UW-Stevens Point.

## Academic Resources

Academic Achievement Center
Room 018, Learning Resources Center 346-3568
Academic Computing Services
Room 019, Learning Resources Center 346-2081

Computer Labs:
X2197, Rm 026, Learning Resources
Center
X2073, Rm B238, Science Building
X2617, Rm 323, Collins Classroom Center
X4162, Rm 231, College of Natural
Resources
X2542, Rm 107, College of Professional Studies
Admissions Office
Room 102, Student Services Center
346-2441

## Archives

Fifth Floor, Learning Resources Center 346-2586
Educational Opportunity Programs
Room 203, Student Services Center
346-3828
International Programs
Room 208, Main Building
346-2717 or 346-3757

## Laboratories

Foreign Language Laboratory
Room 305, Collins Classroom Center
X2972 (on-campus only)
Media Lab
Room 316, Learning Resources Center 346-4246
Music Library and Listening Lab
Room C128, College of Fine Arts 346-2569
Library Resoarces
Government Publications (Documents)
Sixth Floor, Learning Resources Center 346-3726
Information Desk
First Floor, Learning Resources Center 346-2540
Instructional Materials Center (IMC)
Room 309, Learning Resources Center 346-4246
Interlibrary Loan
First Floor, Learning Resources Center 346-2809
Periodicals
Second Floor, Learning Resources Center 346-2775

Reference Room
First Floor, Learning Resources Center 346-2836
Reserve Desk
First Floor, Learning Resources Center 346-4428
Registration and Records
Room 101, Student Services Center 346-4301
Student Assistance Center
Room 103, Student Services Center 346-3361

## Tutoring Services

Educational Opportunity Programs
Room 203, Student Services Center 346-3828

Life Sciences Tutoring
Room 404, College of Natural Resources 346-3078
Mathematics Tutoring and Mathroom-
Room A113A, Science Building
DeBot Center (evenings)
346-2120
Reading and Study Skills Lab
(Academic Achievement Center)
Room 018, Learning Resources Center 346-3568
Writing Lab
(Academic Achievement Center)
Room 018, Learning Resources Center 346-3568

## Career Planning/Development <br> Career Services

Room 134, Main Building
346-3136 or 346-3226
Counseling and Human Development Center
Room 304, Delzell Hall
346-3553
SIGI Plus
(System for Interactive Guidance and Information Plus)
Counseling Center
Third Floor, Delzell Hall
346-3553

## Child Care

Community Humran Services Department,
Child Day Care
817 Whiting Ave,, Stevens Point 345-5350
Gesell Institute for the Study of Early Childhood
Room 124, College of Professional Studies 346-2830 or 346-2108
University Child Learning and Care Center
Lower Level, Nelson Hall
346-4370

## Community Resources

Central Wisconsin Business Development Center
Main Building
346-2004
First Call for Help
PO Box 457, Stevens Point
345-5380
Groundwater Center
Room 101, Student Services Center 346-4270
Portage County Community Human Services
817 Whiting Ave., Stevens Point
345-5350

Portage County Public Library
1325 Church St., Stevens Point 346-1548
University Telecommunications
Room 110, Communication Arts Center
346-2647

## Employment

## Career Services

Room 134, Main Building
346-3136 or 346-3226
Job Location and Development Program
(Student Employment Office)
Room 003, Student Services Center
346-2174 or 346-2656
Job Service (YMCA Building)
1650 Briggs St., Stevens Point 345-5330
Work/Study Program
Student Employment Office
Room 003, Student Services Center
346-2174 or 346-2656

## Facilities, Activities, and <br> Entertainment

Alumni and UW-SP Foundation Inc.
Room 212, Main Building
346-3811

## Art Exhibits

Edna Caristen Art Gallery
Second Floor, College of Fine Arts $346-4797$
Association for Community Tasks (A.C.T.)
Lower Level, University Center
346-2260
Athletic Events
Room 11, Physical Education Building 346-2840
Athletic Ticket Office
Room 125, Physical Education Building

## 346-3888

Campus Organizations
Campus Activities Office
Lower Level, University Center
346-4343
Conceris, Lectures, etc.
The Performing Arts Series
346-3265
Box Office, 346-4100
Conference and Reservations
Room 204, University Center
346-2427
Conservatory for Creative Expression
Room B117, College of Fine Arts
346-2728

## Intramural Sports

Room 107, Physical Education Building

## 346-4441

Natural History Museum
First Floor, Learning Resources Center
346-2858
News and Publications
Room 116, Main Building
346-3046
Outdoor/Indoor Sports Equipment Rental
Recreational Services
Lower Level, University Center
346-3848

## Protective Services

Room 001, George Stien Building
346-3456

## Resources and Opportunities

## Radio

WWSP 90 FM
Room 101, Communication Arts Center
346-3755 Business
346-2696 Request Line
Stevens Point Bureau
Wisconsin Public Radio
Room 101L, Communication Arts Center 341-0202
Schmeeckle Reserve
Schmeeckle Reserve Visitor Center
North Point Drive
346-4992
Student Conduct
First Floor, Delzell Hall
346-3860
Student Government Association
Lower Level, University Center
346-4036
Student Life
First Floor, Delzell Hall
346-2611
Suzuki House
American Suzuki Talent Education Center
2101 Main Street
346-3033
Technical Services
Room 203, University Center
346-4203

## Theatre

Room 109, College of Fine Arts
346-4429 Office
346-4100 Box Office
University Activities Board (UAB)
Student Activities Complex
Lower Level, University Center
346-2412 Office
346-3000 Dial-An-Event

## Finances

Accounts Receivable
(Student Billing)
Room 105G, Student Services Center 346-4796
Cashier (Bursar)
Room 007, Student Services Center 346-2088
Financial Aid
Room 106, Student Services Center 346-4711
National Direct Student Loans
Room 004, Student Services Center
346-3473
Scholarships
Room 212, Main Building
346-3811

## Health

Alcohol and Other Drug Education Program
Third Floor, Delzell Hall
346-3553
Center for Communicative Disorders
Room 037, College of Professional Studies 346-3887
Counseling Center
Thịrd Floor, Delzell Hall 346-3553
St. Michael's Hospital
900 Illinois Ave., Stevens Point 346-5000

Student Health Insurance
Lower Level, University Center
Student Government Office
346-3721
Student Health Service
Room 206, Delzell Hall
346-4646

## Housing

Off-Campus Housing
First Floor, Delzell Hall
346-3861
On-Campus Housing
Lower Level, Delzell Hall
346-3511

## Legal

Equal Opportunity/Affirmative Action Office Chancellor's Office
Room 213, Main Building
346-2123
Student Legal Services
Room 131, University Center
346-4282

## Miscellaneous

Lost and Found
Information Center, University Center
346-4242
Parking
Room 101B, George Stien Building
346-3900
Photocopy Machines
Information Center, University Center 346-4242
First Floor, Learning Resources Center
346-2540
Point Card Office
DeBot Center
346-2012
Ride Board
First Floor, University Center
Allen Center
DeBot Center
STP Service (Escort Service)
Women's Resource Center
Room 10, Nelson Hall
346-4851
Text Rental
University Store, University Center
346-3431
Typewriters
Materials Center, University Center
346-2226
Learning Resources Center
346-2540
DeBot Materials Center
346-2750
University Store
Lower Level, University Center
346-3431

## Publications <br> UW-SP Catalog

Admissions Office
Room 102, Student Services Center
346-2441

## University Store <br> Lower Level, University Center <br> 346-3431

Horizon (Yearbook)
Room 133, University Center
346-2505
Pointer
(Copies available throughout campus)
Room 101J, Communication Arts Center 346-2249

## Pointer Alumnus

Alumni Office
Room 212, Main Building
346-3811
Pointer Daily
(Copies available throughout campus)
Information Center, University Center 346-4242

## Timetable

Registration and Records
Room 101, Student Services Center 346-4301

## Religious Centers

Newman Center (Catholic)
2108 Fourth Ave., Stevens Point 345-6500
Peace Campus Center (Lutheran)
200 Vincent St., Stevens Point
345-6510
United Ministries in Higher Education (Protestant)
2108 Fourth Ave. (Newman Center) 341-0266

## Special Populations

Disabled Students
Disabled Student Services
Room 103, Student Services Center
346-3361
Foreign Students
Foreign Student Office
International House
346-3844
English Language Institute
International House
346-3857
Minority and Disadvantaged Students
Educational Opportunity Programs (EOP)
Room 203, Student Services Center
346-3828

## Native Americans

Native American Center
Room 206, Student Services Center
346-3576
Nontraditional Students
Nontraditional Student Services Office
Dean Smith Room, University Center
346-2045
Veterans
Registration and Records
Room 101, Student Services Office
346-4301
Women
Women's Resource Center
Room 10A, Nelson Hali
346-4851

## UW-Stevens Point Administration

Philip R. Marshall, Chancellor
H. Howard Thoyre, Vice Chancellor for Academic Affairs
Gregory M. Diemer, Assistant Chancellor for Business Affairs
Frederick A. Leafgren, Assistant Chancellor for Student Life
Helen R. Godfrey, Assistant Chancellor for University Relations


## Faculty and Academic Staff

Part-time assignments are indicated by an asterisk (*) following the name. Appointments for less than one semester or less than 3 credits are not listed.
Date indicates beginning of continuous service at the University of Wisconsin-Stevens Point.
The initials HPERA indicate Health, Physical Education, Recreation, and Athletics.
This is a listing of the faculty and academic staff for the 1986-87 academic year.

Marc D. Abrams, Assistant Professor of Natural Resources, 1985. B.S., State University of New York at Binghamton; M.S., Ph.D., Michigan State University. (graduate faculty)
Said Abubakr, Associate Professor of Paper Science, 1985. B.S., M.S., Moscow Institute for Petroleum and Petrochemical Industries; M.S., Ph.D., Michigan State University. (graduate faculty)
Richard C. Ackley, Assistant Professor of Mathematics and Computing, 1967. B.S., Western Michigan University; M.A., University of Michigan, Ann Arbor.
Robert J. Adler, Instructor in Mathematics and Computing, 1985. B.S., State University College at Buffalo; M.A., University of Northern Colorado.
Janice S. Albertson*, Interior Designer, Student Life Business Operations, 1980. B.S., University of Wisconsin-Stevens Point. Gary T. Alexander, Associate Professor of Philosophy, 1986. B.A., Transylvania University; M.Div., Lexington Theological Seminary; Ph.D., University of Chicago.
Marlene L. Alexander* ${ }^{*}$, Lecturer in Philosophy, 1986. B.A., University of Arizona; M.A., New School for Social Research; Ph.D., Penn State University.
Betty Jean Allar, Professor of Education, 1966. B.S., University of Wisconsin-River Falls; M.S., University of Wisconsin-Madison; Ed.D., University of Northern Colorado. (graduate faculty)
Calvin Young Allen, Associate Professor of Communication, 1969. B.A., University of Evansville; M.A., Ohio University.

Anne H. Ambroziak*, Lecturer in Home Economics, Gesell Institute, 1981. B.S., University of Wisconsin-Stout.
Don J. Amiot, Director of Athletics, and Instructor in HPERA, 1971. B.S., Mayville State College; M.S., South Dakota State University.
Margaret N. Andersen*, Teacher, University Child Learning and Care Center, 1982. B.S., University of Wisconsin-Stevens Point.
David F. Anderson*, Lecturer in Communication, 1986. B.A., University of Minnesota-Morris.
John Edward Anderson, Director of News and Publications, 1967. B.A., University of Wisconsin-Eau Claire.

Katherine J. Anderson, Instructor in the Learning Resources Center, 1985. B.A., University of Wisconsin-Stevens Point; M.L.S., University of Wisconsin-Madison.

Raymond K. Anderson, Professor of Wildlife, 1966. B.S., University of Wisconsin-Stevens Point; M.A., University of Michigan, Ann Arbor; Ph.D., University of Wisconsin-Madison. (graduate faculty)
Colleen Andrews, Systems Analyst in Student Life, 1986. B.A., Dominican College (University of Wisconsin-Parkside).
Jeffrey Andrews, Trace Organic Lab Manager, Data Management Specialist for Environmental Task Force Program, 1986.
Oliver A. Andrews, Associate Professor of Chemistry, 1960. B.S., University of Wisconsin-Stevens Point; M.S., University of Wisconsin-Madison.
Deborah Anstett, Director of Special Services for Disadvantaged Students in the Educational Opportunity Program, 1985. B.S., University of Wisconsin-Stevens Point; M.S., University of Wisconsin-Madison.

Gretchen A. Armstrong*, Alcohol Education Program Counselor, 1985. B.S., Iowa State University; M.A., University of Evansville.

Peter J. Armstrong, Associate Director, Residence Life, 1984.
B.A., Iowa State University of Science and Technology; M.A., University of South Dakota.
Nora Arostegui*, Lecturer in Communication, 1986. B.A., UACA.
M. Roberto Assardo, Professor of Foreign Languages, 1973. B.A., M.A., Indiana University; Ph.D., University of California, Los Angeles. (graduate faculty)
Donald L. Aylesworth, Associate Professor of Communicative Disorders, 1969. B.S., Western Michigan University; M.A., Ph.D., Michigan State University. (graduate faculty)
Judy A. Bablitch*, ACSW, Lecturer in Sociology and
Anthropology, 1984. B.A., Beloit College; M.S.W., University of Illinois, Chicago.
Robert C. Badger, Assistant Professor of Chemistry, 1984. B.S., Ohio University; Ph.D., The University of Toledo. (graduate 'faculty)
Virginia L. Baeten*, Lecturer in Home Economics, 1985. B.S., M.S., University of Wisconsin-Stevens Point.

John Bailiff, Professor of Philosophy, 1966. A.B., Stanford University; M.A., Ph.D., The Pennsylvania State University. (graduate faculty)
Mary Ann Baird, Associate Professor of Fashion and Interior Design, 1962. B.S., University of Wisconsin-Stout; M.S.T., University of Wisconsin-Stevens Point. (graduate faculty)
Robert F. Balas, Professor of Communicative Disorders, 1976. A.B., Valparaiso University; M.A., Northern Illinois University; Ph.D., University of Denver. (graduate faculty)
Devy Barnett*, Lecturer in Music, 1985. B.A., Rutgers University.
Ailen F. Barrows, Associate Professor and Director of the University Library, 1969. B.S., University of Wisconsin-Stevens Point; M.L.S., Indiana University.
Charlotte Baruch*, Student Life Editor, 1985. B.S., University of Wisconsin-Stevens Point.
Robert Baruch, Professor of Theatre Arts; Assistant to the Assistant Chancellor for Student Life; 1967. B.A., North Texas State University; M.S., University of Colorado at Boulder; Ph:D., University of Minnesota.
Joan A. Baruffi*, Master Teacher in the Gesell Institute, 1986.
B.S., University of Wisconsin-Stevens Point.

Nancy E. Bayne, Associate Professor of Psychology, 1975. B.S., M.S., Ph.D., Iowa State University of Science and Technology. (graduate faculty)
David H. Beadle, Professor of Music, 1973. B.M.,
University of Wisconsin-Madison; M.M., Eastman School of Music, University of Rochester. (graduate faculty)
Kirk H. Beattie, Associate Professor of Wildlife, 1979. B.S., Colorado State University; M.S., Mississippi State University; Ph.D., Virginia Polytechnic Institute and State University. (graduate faculty)
Robert B. Beeken, Associate Professor of Physics and Astronomy, 1980. B.A., Western State College of Colorado; M.S., Ohio University; Ph.D., The University of Iowa. (graduate faculty)
Richard H. Behm, Professor of English, Director of
Academic Achievement Center, 1976. B.A., College of Saint Thomas; M.F.A., Ph.D., Bowling Green State University. (graduate faculty)
James A. Belz, Assistant Professor in the University Library, 1985. B.S., M.A., M.L.S., University of Wisconsin-Milwaukee.

Holly L. Bembenek, Director, Conference and Reservations, 1976. B.S., B.A., University of Wisconsin-Stevens Point.

Hope E. Bennin*, Lecturer in Communication, 1984. B.S., University of Wisconsin-Stevens Point.
Donald A. Benz, Professor of Education, 1966. B.E., University of Wisconsin-Stevens Point; M.A., Ph.D., George Peabody College for Teachers, Vanderbilt University. (graduate faculty)
Ronald C. Bergstrom, Director, Student Life-Facilities Projects, 1978. B.S., University of Wisconsin-Stevens Point.

John I. Betinis, University Physician and Associate Director, University Health Service, 1977. B.A., M.D., University of Southern California; M.P.H., University of California, Berkeley.
Mary Lou Biddlestone, Instructor in HPERA, 1963. B.S., Slippery Rock University of Pennsylvania; M.A., University of Minnesota. Michael J. Bilbrey*, Lecturer in Mathematics and Computing, 1985. B.S., B.B.A, M.B.A., University of Wisconsin-Eau Claire. John R. Billings, Associate Professor of Philosophy, 1966. B.S., Lehigh University; M.A., Brown University; Ph.D., Syracuse University. (graduate faculty)
John J. Birrenkott, Director, Student Life Business Operations, 1976. B.S., University of Wisconsin-Stevens Point.
E. Sherwood Bishop, Professor of Sociology and Anthropology, 1972. B.A., Lakeland College; M.A., University of WisconsinMilwaukee; Ph.D., Florida State University. (graduate faculty) Lynn A. Blair, Assistant Professor of HPERA, 1965, B.S., MacMurray College; M.S., University of Southern Mississippi.
Allen F. Blocher, Associate Professor of Physics and Astronomy, 1958. B.S., McPherson College, M.S., University of NebraskaLincoln.
Melvin Bloom, Associate Professor of Foreign Languages, 1966. B.S., The Ohio State University; M.A., Universidad de las Americas (Mexico City College); Ph.D., Universidad Interamericana, (graduate faculty)
Patricia Ann Bloom*, Lecturer in English, 1968. B.A., M.A., Ohio University.
Thomas K. Bloom, Associate Professor of English, 1968. A.B., M.A., Ph.D., Ohio University. (graduate faculty)

Stephen R. Bondeson, Associate Professor of Chemistry, 1980. B.S., University of Wisconsin-Stevens Point; Ph.D., Duke University, (graduate faculty)
Jon T. Borowicz, Professor of Music, 1975, B.M., M.M., The Cleveland Institute of Music; Ph.D., University of WisconsinMadison. (graduate faculty)
Robert O. Bowen Sr., Professor of Health and Physical Education, HPERA, 1966. B.S., M.S., University of WisconsinMadison; H.S.D., Indiana University. (graduate faculty)
Frank D. Bowers, Professor of Biology, 1975. B.S., Southwest Missouri State University; M.S., Ph.D., University of Tennessee, Knoxville. (graduate faculty)
James A. Bowles, Professor of Soil Science, 1967. B.S., Colorado State University; Ph.D., University of Wyoming. (graduate faculty)
Janet E. Boyle, Associate Professor of Education, 1984. B.S., M.S., Ph.D., Indiana State University. (graduate faculty)

Frieda E. Bridgeman, Professor of Theatre Arts, 1965. B.S., Southeast Missouri State University, M.S., Ph.D., University of Wisconsin-Madison. (graduate faculty)
Michael Louis Brisson, Director of Edacational Media Services, 1984.

Marie D. Carter Brooks, Residence Hall Director, 1986. B.S., Moorhead State University, M.A., University of North Dakota.
Lori F. Brost, Lecturer in Communication, 1985. B.S., University of Wisconsin-Stevens Point; M.S., Brooklyn College, The City University of New York.
Kenneth J. Brown, Assistant Professor of Mathematics, 1966. S.B., University of Chicago; M,A., University of Missouri, Columbia.
Linda S. Bruckert, Lecturer in Home Economics, 1984. B.S., M.S., University of Wisconsin-Stevens Point.

Mark Brueggeman, Assistant Professor of Art, 1974. B.A., M.F.A., Southern Illinois University-Edwardsville. (graduate faculty)
James G. Brummer, Assistant Professor of Chemistry, 1985. B.S., University of California, Davis, M.S., University of Montana; Ph.D., Washington State University, (graduate faculty) Irving H. Buchen, Professor of English; Vice Chancellor and Dean of Faculty; 1984. B.A., M.A., New York University; Ph.D., The Johns Hopkins University. (graduate faculty)
Thomas J. Buchholz, Associate Professor of English, 1970. B.S.,

University of Wisconsin-Oshkosh, M.A., University of WisconsinMilwaukee; Ph.D., University of Wisconsin-Madison, (graduate faculty)
Edward M. Buda*, Lecturer in Psychology, 1982. B.S., University of Wisconsin-Milwaukee; M.A, Ph.D., California School of Professional Psychology.
Fred M. Buehler, Assistant Professor in the Learning Resources Center, 1968 B.A., University of Minnesota-Duluth; M.L.S., University of Wisconsin-Madison; M.S.T, University of Wisconsin-Stevens Point.
Mary Jo Buggs, Assistant Professor of English, 1966, B.S., M.S.T., University of Wisconsin-Stevens Point.

Roger A. Bullis, Associate Professor of Communication, Associate Dean and Head of the Division of Communication, 1971. B.A., M.A., Ph.D., University of Wisconsin-Madison. (graduate faculty)

Richard C. Burnes, Assistant Professor of Accounting, 1984, B.S., Northland College; M.Mgt., Northwestern University.
Lee A. Burress, Professor of English, 1958. A.B., Wichita State University; B.S., Garrett Theological Seminary, Ph.D., Boston University (graduate faculty)
Jennifer J. Burton, Violin Specialist, American Suzuki Talent Education Center, 1977. B.M.E., University of Wisconsin-Eau Claire; M.M.Ed., University of Wisconsin-Stevens Point.
Robert W. Busch, Director, University Centers, 1967, B.S., Concordia Teachers College, River Forest, Illinois; M.S., University of Wisconsin-Milwaukee.
Kathleen T, Buss ${ }^{\star}$, Assistant Professor of Home Economics, 1982. B.S., The Ohio State University, M.Ed., Ph.D., Georgia State University. (graduate faculty)
William J. Cable, Associate Professor of Mathenatics, 1962. B.S., University of Wisconsin-Stevens Point, M.S., University of Wisconsin-Madison; M.B.S., University of Colorado at Boulder.
Katharine D. Caffrey, Residence Hall Director, 1986. B.A. Western Michigan University; M.S., Mankato State University.
Linda A. Caldwell, Assistant Professor of Theatre Arts (Dance), 1982. B.A., The University of Iowa; M.S., M.F.A., University of Wisconsin-Madison.
Christopher M. Callahan, Associate Professor of Music, 1982. B.M., Wichita State University; M.M., University of Michigan, Ann Arbor.
J. Baird Callicott, Professor of Philosophy and of Natural Resources, 1969. B.A., Rhodes College; M.A., Ph.D., Syracuse University (graduate faculty)
James Lewis Canfield, Professor of Political Science, 1969. A.B., Albion College; M.A., Ph.D., University of Michigan, Ann Arbor. (graduate faculty)
Ann D. Carlson ${ }^{*}$, Assistant Professor of Mathematics and Computing, 1965. B.S., University of Wisconsin-Whitewater; M.A., University of Northern Lowa.

Stanley L. Carlson, Professor of Mathematics, 1965. B.S., University of Wisconsin-River Falls; M.A., University of Northern Iowa; Ed.D., University of Northern Colorado. (graduate faculty)
Christy W. Carter, Counseling Psychologist, 1984. B.A., Hamline
University; M.A., Ed.D., University of South Dakota.
James K. Carter, Assistant Professor of Mathematics and
Computing, 1985. B.A., Ohio Northern University, M.B.A.,
University of Toledo.
Susan Faust Casper*, Lecturer in English; Writing Lab
Coordinator, Academic Achievement Center; 1983. B.S., M.S.T, University of Wisconsin-Stevens Point.
Mark Cates, Professor of Political Science, 1963. A.B., M.A.,
Ph.D., Indiana University. (graduate faculty)
Randall J. Champeau, Assistant Professor of Environmental Education, and of Natural Resources, 1984. B.S., M.S., University of Wisconsin-Stevens Point; Ph.D., Michigan State University. (graduate faculty)
Jagdish Chander, Professor of Physics and Astronomy, 1966. B.Sc., D.A.V. College Jalandhar (Pb.), Panjab University; M.Sc., Birla Institute of Technology and Science, Pilani; Dr. rer nat., Friedrich Alexander University, Erlangen Nuremberg. (graduate faculty)

Jyotsna Chander, Senior Lecturer in Mathematics, 1968. B.A., H.M.V. College, Jalandhar City; M.A., D.A.V. College, Panjab University, Jalandhar City; M.E.P.D., University of WisconsinStevens Point.
Theresa Chao, Instructor in the Learning Resources Center, 1971. B.A., National Chengchi University; M.L.S., University of Oklahoma.
Gerald E. Chappell, Professor of Communicative Disorders, 1962. B.S., Kent State University; M.A., Northwestern University; Ph.D., University of Wisconsin-Madison. (graduate faculty)
Cindy Chelcun, Associate Director for Life Planning, Student Life; 1978. B.S., University of Illinois at Urbana-Champaign; M.S.Ed., University of Wisconsin-Oshkosh.

David P. Chitharanjan, Professor of Chemistry; Director of Medical Technology; 1968. B.S. (Hons), M.Sc., Annamalai University, Madras, India; Ph.D., Wayne State University. (graduate faculty)
Yang-Soo Choi, Assistant Professor of Communication, 1986. B.A., Yonsei University (Seoul, Korea); M.A., Bowling Green State University; Ph.D., University of Iowa.
Darrell A. Christie, Associate Professor of Economics, 1964. B.S., Jamestown College; M.S., University of Illinois at UrbanaChampaign.
Richard D. Christofferson Sr., Professor of Political Science, 1970. B.S., Black Hills State College; M.A., Ph.D., Purdue University. (graduate faculty)
Myrvin F. Christopherson, Professor of Communication, 1969.
B.A., Dana College; M.S., Ph.D., Purdue University. (leave)

Eugene J. Clark, Associate Professor of Sociology and
Anthropology, 1968. B.A., University of Montana; M.S., Montana State University; Ph.D., Louisiana State University. (graduate faculty)
William L. M. H. Clark, Professor of English, 1969. B.S., M.S.T., University of Wisconsin-River Falls. (graduate faculty)

Alice L. Clawson, Professor of HPERA; 1966. B.S., The Ohio
State University; M.A., Ph.D., Texas Woman's University. (graduate faculty)
Sharon S. Cloud, Development Specialist, Native American Center, 1979. B.S., University of Wisconsin-La Crosse.
Daniel W. Coble, Adjunct Professor of Fisheries; Leader, Wisconsin Cooperative Fishery Research Unit; 1971. B.S., Purdue University; M.S., Oregon State University; Ph.D., University of Toronto. (graduate faculty)
Susan J. Coe, Assistant to the Dean of the College of Natural Resources, 1976. B.A., Texas Christian University; M.S.W., Boston University.
Richard L. Conlon, Associate Professor of Mathematics, 1964. B.S., Creighton University; M.S., University of Michigan, Ann Arbor.
Frederick A. Copes, Professor of Biology and of Fisheries, 1964. B.S., University of Wisconsin-Stevens Point; M.S., University of North Dakota; Ph.D., University of Wyoming. (graduate faculty)
Robert M. Coppinger, Associate Professor of Sociology and Anthropology, 1970. B.A., M.A., Ph.D., University of Missouri, Columbia. (graduate faculty)
Helen M. Corneli, Professor of English; Director of International Programs; 1962. B.S., M.A., University of Illinois at UrbanaChampaign; Ph.D., University of Wisconsin-Madison. (graduate faculty)
Duaine K. Counsell, Associate Professor of HPERA, 1957. B.S., University of Wisconsin-Stevens Point; M.S., University of Wisconsin-Madison.
Brarry A. Cox, Captain, U.S. Army, Assistant Professor of Military Science, 1986. B.A., University of Charleston.
Charles L. Crandall, Assistant Professor of HPERA; Athletic Trainer; 1969. B.S., Bowling Green State University; M.S., Syracuse University.
Jay H. Cravens, Professor of Forestry and of Natural Resources, 1976. B.A., Coe College; B.S., M.F., Colorado State University. Randy F. Cray, Assistant Professor of Business and Economics; Director of Central Wisconsin Economic Research Bureau; 1986.
B.S., M.A., M.B.A., Ball State University; Ph.D., Kansas State University. (graduate faculty)
Mary K. Croft*, Emeritus Professor of English; Acting Associate Dean and Head of the School of Home Economics; 1967. B.A., M.A., University of Chicago.

Richard Crowther, Assistant Professor of Biology, 1986. B.S., Sul Ross State University; M.S., University of Texas at El Paso; Ph.D., New Mexico State University. (graduate faculty)
Jack F. Curtis, Associate Professor of Communicative Disorders, 1971. B.A., Ohio Northern University; M.A., Ohio University; Ph.D., Case Western Reserve University. (graduate faculty)
John D. Curtis, Professor of Biology, 1976. B.S.; Western Illinois University; M.S., The Ohio State University; Ph.D., Iowa State University of Science and Technology. (graduate faculty)
Gretchen d'Armand, Associate Professor of Music, 1984. B.M., Northwestern University; M.M., University of Wisconsin-Madison.
William C. Davidson, Associate Professor of Communication, 1968. B.A., Goshen College; M.A., Ph.D., The University of Kansas. (graduate faculty)
Erin M. Davisson, Program Host/Reporter for UW-SP Wisconsin Public Radio Bureau, 1986. B.S., University of Wisconsin-Stevens Point.
Mary Ann Day, Clinical Supervisor, Communicative Disorders, 1983. B.A., College of St. Teresa; M.S., University of WisconsinMadison.
Robert L. Dean, Senior Lecturer in Business and Economics;
Director, Central Wisconsin Computer Information Services; 1982.
B.B.A., M.B.A., The University of Kentucky.

Elena M. DeCosta, Visiting Assistant Professor of Foreign
Languages, 1986. B.A., Boston State College; M.A., Ph.D., University of Wisconsin-Madison. (graduate faculty)
Subhash S. Deodhar, Associate Professor of Paper Science, 1978.
B.Tech., Indian University of Technology, Bombay; Ph.D., Syracuse University. (graduate faculty)
Patricia M. D'Ercole, Suzuki Specialist, American Suzuki Talent Education Center, 1984. B.M.E., Rosary College; M.M.E., University of Wisconsin-Stevens Point.
Imogene De Smet, Professor of English, 1968. B.A., College of St. Mary of the Wasatch; M.A., Creighton University; M.A., Ph.D., University of Toronto. (graduate faculty)
Thomas Detwyler, Professor of Geography, 1981. B.S., University of Michigan, Ann Arbor; Ph.D., The Johns Hopkins University. (graduate faculty)
Gregory M. Diemer, Assistant Chancellor for Business Affairs, 1986. B.A., Mankato State University.

Julia Phelps Dietche, Associate Professor of English, 1976. B.A., Vassar College; M.A., New York University; Ph.D., University of North Carolina at Chapel Hill. (graduate faculty)
Dan Dieterich, Professor of English; Academic
Achievement Center; 1976. B.A., M.A., DePaul University; Ph.D., University of Illinois at Urbana-Champaign. (graduate faculty)
Coralie E. Dietrich, Professor of Psychology, 1968. B.A., The Catholic University of America; M.A., Ph.D., University of Minnesota. (graduate faculty)
Donald J. Dietrich, Professor of History, 1968. B.A., Canisius College; M.A., Ph.D., University of Minnesota. (graduate faculty)
Winthrop C. Difford Adjunct Professor of Geology, 1968. B.S., Mount Union College; M.S., West Virginia University; Ph.D., Syracuse University. (graduate faculty)
Barbara Dixson, Assistant Professor of English, 1985. B.A.,
Emory University; M.A., Ph.D., Auburn University. (graduate faculty)
Paul E. Doebler Jr., Associate Professor of Music; Director, Point Music Camp; 1975. B.S., M.S., The Juilliard School.
Patricia A. Doherty, Associate Director and Senior Psychologist, Counseling Center, 1979. B.A., M.A., Ph.D., The University of Iowa.
Rex Doretiy, Professor of Art, 1984. B.S., Western Illinois University; M.S., Ed.D., Illinois State University. (graduate faculty)

Ruth E. Dorgan, Assistant Professor of English, 1962. B.A., M.A., Louisiana State University, Baton Rouge.

Richard W. Doxtator, Associate Professor of English, 1962. A.B., College of Emporia; M.A., Emporia State University, PhiD., University of New Mexico. (graduate faculty)
John P. Droske, Assistant Professor of Chemistry, 1982. B.S., M.S, DePaul University, Ph.D., Colorado State University, (graduate faculty)
Richard M. Dubiel, Assistant Professor of Communication, 1985. B.A., Pennsylvania State University; M.A., Ph.D., Purdue University. (graduate faculty)
David Dumke, Assistant Controller, 1984. B.S., University of Wisconsin-Stevens Point.
James P. Dunigan, Associate Professor of Accounting, 1970. B.B.A., M.B.A., University of Wisconsin-Madison.

Mary F. Duritsa, Director of Central Wisconsin Environmental Station, 1984. B.A., Hamline University; M.A., University of Northern lowa.
Denise L. Dvorscak, Television Artist/Set Designer in University Telecommunications, 1981. B.S., University of Wisconsin-Stevens Point.
Jay Eck, Head Coach for Men's Basketball, 1985. B.S., B.A., Xavier University (Ohio).
David J. Eckholm, Registrar, Director of Registration and Records, 1968, B.S., M.A.T., University of Wisconsin-Stevens Point.
Dennis E. Elsenrath, Associate Professor of Psychology; Executive Director, Student Enrichment and Retention Services; Director of Counseling Center, and Psychologist; 1965. B.S., Slippery Rock University of Pennsylvania; M.S., Westminster College (Pennsylvania); Ed.D., Indiana University. (graduate faculty)
Garard R. Emerich*, Associate Lecturer in Mathematics and Computing, 1984. B.S., University of Wisconsin-Stevens Point; M.S., University of Wisconsin-Superior.

Carol Emmons, Visiting Instructor in Art, 1986. B.S., University of Wisconsin-Stevens Point; B.F.A., M.F.A., University of Wisconsin-Milwaukee. (graduate faculty)
Karen R. Engelhard, Director of Alumni Relations; Coordinator, UW-SP Scholarship Program; Executive Secretary, University of Wisconsin-Stevens Point Foundation, Inc; 1976. B.S., University of Wisconsin-Stevens Point.
Robert J. Engelhard, Professor of Forestry; 1967. B.S., Utah State University; M.S., University of Denver; Ph.D., Michigan State University. (graduate faculty)
Robert B. Enright Jr., Assistant Professor of Sociology and Anthropology, 1984. A.B., University of California, Berkeley; M.A. Ph.D., University of Chicago. (graduate faculty)

Steven K. Erwin, Residence Hall Director, 1984. B.A., M.S.Ed. Eastern lllinois University.
Lawrence E. Estaville Jr., Major, U.S. Army, Associate Professor of Military Science, 1986. B.A., M.A., McNeese State University, M.A. University of Southwestern Louisiana, Ph.D., University of Oklahoma.
Rollin Evans, Visiting Assistant Professor of Physics and Astronomy, 1985. B.S., University of Wisconsin-Oshkosh, Ph.D., Iowa State University (graduate faculty)
Gary L. Evenson*, Lecturer in Music; Marching Band Director; 1985. B.A., Luther College.

Daniel Fabiano, Professor of Art, 1967. B.S., M.S., M.F.A., University of Wisconsin-Milwaukee. (graduate faculty)
Richard D. Face, Professor of History, 1963. B.A., M.A., University of Cincinnati; Ph,D., University of Wisconsin-Madison. (graduate faculty)
Donald E. Fadner, Associate Professor of Philosophy, 1974. B.A., Carroll College; M.Th., Southern Methodist University; A.M. Ph.D., University of Chicago. (graduate faculty)
Yiu-Kwan Fan, Professor of Economics, 1981. B.A., University of Hong Kong; M.A., University of Toronto; M.S., Ph.D., University of Wisconsin-Madison. (graduate faculty) (leave)
Ethel B. Fang, Piano Instructor, American Suzuki Talent Education Center, 1978. B.M., University of Wisconsin-Stevens

Point, M.M., Baylor University. (leave)
Marcus C. S. Fang, Associate Professor of Psychology; Director, Foreign Student and Cultural Programs; 1968. B.A., Southwestern University; M.S., Ph.D., University of Wisconsin-Madison. (graduate faculty)
Carl L. Farnsworth, Associate Professor of Chemistry, 1967. B.S., M.A., Ph. D., University of Texas at Austin. (graduate faculty)

Cheryl G. Fedje, Associate Professor of Home Economics, 1981.
B.S., Saint Olaf College; M.S., North Dakota State University of Agriculture and Applied Science, Ed.D., University of NebraskaLincoln. (graduate faculty)
Richard J. Feldman, Professor of Philosophy, 1971. Th.B., Northern Baptist Seminary; M.A., Roosevelt University; Ph.D., Washington University. (graduate faculty)
Virginia Kemp Fish, Professor of Sociology and Anthropology, 1967. B.A., University of Minnesota; M.A., Central Michigan University; Ph.D., Western Michigan University. (graduate faculty)
Deborah S. Fisher, Residence Hall Director, 1985. B.A.,
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George C. Becker (1957-1979)
Eugene E. Brodhagen (1956-1983)
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Virginia Kemp Fish (1967-1987)
'Gail Moore Fountain (1969-1981)
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# University System Administration 

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## The System Mission

UW-Stevens Point shares in the mission of the University of Wisconsin System. The mission of this system is to develop human resources, to discover and disseminate knowledge, to extend knowledge and its application beyond the boundaries of its campuses, and to serve and stimulate society by developing in students heightened intellectual, cultural, and humane sensitivities; sciertific, professionat, and technological expertise; and a sense of purpose. Inherent in this broad mission are methods of instruction, research, extended education, and public service designed to educate people and improve the human condition. Basic to every purpose of the system is the search for truth.

## The Core Mission

As an institution in the 'University Cluster" of the University of Wisconsin Sys tem, UW-Stevens Point shares the following core mission with other universities of the cluster:

1. Providing baccalaureate degree level and selected graduate programs within the context of its approved select mission.
2. Meeting the educational ind personal development needs of students through effective teaching, acadēmic advising, and counseling, and through universitysponsored culturat, recreational, and extracurricular programs.
3. Providing a first priority emphasis on teaching excellence.
4. Providing a base of liberal studies needed as the foundation for university degrees in the arts, letters and sciences, as well as for specialized professional and occupational degrees at the baccalaureate level.
5. Providing a program of preprofessional curricular offerings consistent with the university's mission to serve the needs of citizens in its geographical area
6. Supporting a commitment to scholarly activity integral to and supportive of instructional programs and teaching excellence,
7. Meeting the off-campus instructional and continuing education needs of citizens in the campus service region and (as appropriate to unique program capability) in the state within the context of coordinated statewide planning of outreach programs.
8. Providing public service to the surrounding region both as a cultural center and a source of problem-solving expertise.
9. Participating in regional consortia and interinstitutional relationships in order to maximize educational opportunity for the people of the region effectively and efficiently through the sharing of resources
10. Supporting a commitment to serving the special needs of minority disadvantaged and nontraditional students.


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[^0]:    359-Harpsichord (Prereq. Piano proficiency of Level VII and cons instr); 360-Piano; 361 -Organ; 362-Voice; 363-Violin; 364-Viola; 365 -Violoncello;
    366-Double Bass; 367-Flute; 368-Oboe;
    369-Clarinet; 370-Bassoon; 371-Saxophone,
    372-Trumpet; 373-Horn; 374-Trombone;
    375-Baritone; 376-Tuba; 377-Percussion;
    378-Harp; 379-Composition, 380-Classical Guitar;
    381-Jazz Guitar.

