CONSERVATION AND ENVIRONMENTAL SCIENCES, BA

At UWM, students with a passion for nature and the environment can obtain a solid education in the natural sciences that are central to environmental science - biology, geosciences, and chemistry - and the social sciences of geography, economics, and politics which guide the application of conservation and environmental science in the real world.

Students at UWM can focus their conservation and environmental science work around land resources, water resources, biological resources/biodiversity, or environmental analysis. Internships and field work complement classroom learning. These opportunities can be found locally at UWM’s own Field Station (http://uwm.edu/letters-science/programs/?discipline=Field+Station), on Lake Michigan aboard UWM’s R/V Neeskay vessel, and at local agencies, or abroad in places as far flung as Iceland, Africa, Romania and the Caribbean.

An active Conservation Club is another student advantage at UWM. Activities range from on-campus sustainability projects to professional networking and more.

UWM’s CES major builds on students’ passion to solve environmental issues through either a BS or a BA degree. The BS requires more courses in math, biology, chemistry, and science and is suitable for careers in field or laboratory work, while the BA has fewer electives in science for a career in public programming, education, or administration.

Because of the breadth and flexibility of this major, students should consult with the Director and/or Coordinator to plan a course of study, preferably before the start of their sophomore year. It is particularly important to begin the introductory course sequences early, since they are prerequisites for advanced courses.

It is recommended that students obtain at least one semester of practical work or internship experience, either as an employee or as a volunteer, with state or federal resource management agencies, consulting firms, conservation or environmental organizations, or with nature centers or local parks.

Requirements

Course of Study – Bachelor of Arts Degree

Complete 120 credits including 90 credits in the College of Letters & Science and with 36 of the 90 credits in L&S upper-level (numbered above 300) courses. The College requires that students must complete in residence at UWM at least 15 credits in upper-division (numbered 300 or above) courses in their major. Students are also required to complete University-wide General Education Requirements and the specific L&S requirements listed below.

To complete a major, students must satisfy all the requirements of the major as stated in this catalog. Students who declare their majors within five years of entering the UW System as a degree candidate may satisfy the requirements outlined in any catalog issued since the time they entered. Credits used to satisfy the major also may be used to satisfy other degree requirements.

University General Education Requirements (GER)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Oral and Written Communication</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Part A</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Achieve a grade of C or better in the following course:</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 102</td>
<td>College Writing and Research (or equivalent)</td>
<td></td>
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<tr>
<td></td>
<td><strong>Part B</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course designated as OWC-B; may be completed through a major-specific course requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Quantitative Literacy</strong></td>
<td></td>
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<tr>
<td></td>
<td><strong>Part A</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Earn at least 3 credits with a grade of C or higher in one of the following courses or an equivalent course, or achieve a placement code of at least 30 on the mathematics placement test (or other appropriate test, as determined by the Mathematical Sciences Department)</td>
<td></td>
</tr>
<tr>
<td>MATH 102</td>
<td>Mathematical Literacy for College Students II</td>
<td></td>
</tr>
<tr>
<td>MATH 103</td>
<td>Contemporary Applications of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MATH 105</td>
<td>Introduction to College Algebra</td>
<td></td>
</tr>
<tr>
<td>MATH 108</td>
<td>Algebraic Literacy II</td>
<td></td>
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<tr>
<td>MATH 111</td>
<td>Introduction to Logic - Critical Reasoning</td>
<td></td>
</tr>
<tr>
<td>or PHILOS 111</td>
<td>Introduction to Logic - Critical Reasoning</td>
<td></td>
</tr>
<tr>
<td>MATH 116</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Or equivalent course</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Part B</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course designated as QL-B; may be completed through a major-specific course requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Arts</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select 3 credits</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Humanities</strong></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Select 6 credits</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Social Sciences</strong></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Select 6 credits</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Natural Sciences</strong></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Select 6 credits (at least two courses including one lab)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>UWM Foreign Language Requirement</strong></td>
<td></td>
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<tr>
<td></td>
<td>Complete Foreign Language Requirement through:</td>
<td></td>
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<tr>
<td></td>
<td>Two years (high school) of a single foreign language</td>
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<tr>
<td></td>
<td>Two semesters (college) of a single foreign language</td>
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<td></td>
<td>Or equivalent</td>
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<tr>
<td></td>
<td><strong>UWM Cultural Diversity Requirement</strong></td>
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<tr>
<td></td>
<td>One course from the Arts, Humanities, or Social Sciences must also satisfy UWM’s Cultural Diversity requirement</td>
<td></td>
</tr>
</tbody>
</table>

1 Math 111 and Philosophy 111 are jointly offered and count as repeats of one another. Students cannot receive credit for both courses.
## College of Letters & Science Requirements

### I. English Composition Requirement
Students must satisfy the English Composition Requirement with one of the following options:

1) Completing ENGLISH 102 with a grade of C or higher; or

2) by placing beyond ENGLISH 102 on the English Placement Test (EPT) or other assessment as determined by the English Department; or

3) transferring a course of at least 2.5 equivalent credits from another institution that is equivalent to English 102, or a UWM higher-level expository writing course, with a grade of C or higher.

**Note:** This requirement is the same as the University General Education Requirement for Oral and Written Communication Part A. The College of Letters & Science does not have a specific requirement for a writing course beyond English 102, but students must complete the university-wide requirement for Oral and Written Communication Part B listed above.

### II. Mathematics and Formal Reasoning
To satisfy the Mathematics and Formal Reasoning Requirement, students must satisfy the following two requirements:

1. Achieve a placement code of at least 30 on the mathematics placement test (or other appropriate test, as determined by the Mathematical Sciences Department) or earn at least 3 credits with a grade of C or higher in one of the following courses or an equivalent course:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 102</td>
<td>Mathematical Literacy for College Students II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 103</td>
<td>Contemporary Applications of Mathematics</td>
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</tr>
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<td>MATH 105</td>
<td>Introduction to College Algebra</td>
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<td>3</td>
</tr>
<tr>
<td>MATH 111</td>
<td>Introduction to Logic - Critical Reasoning ¹</td>
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<tr>
<td>or PHILOS 111</td>
<td>Introduction to Logic - Critical Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>MATH 116</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 175</td>
<td>Mathematical Explorations for Elementary Teachers I</td>
<td>3</td>
</tr>
</tbody>
</table>

¹ Math 111 and Philosophy 111 are jointly offered and count as repeats of one another. Students cannot receive credit for both courses.

**Note:** This requirement is the same as the University General Education Requirement for Quantitative Literacy Part A, listed above.

2. Complete one course (at least 3 credits) at the 200 level or above chosen from courses in Mathematics, PHILOS 211, or Letters and Science statistics courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATM SCI 500</td>
<td>Statistical Methods in Atmospheric Sciences</td>
<td></td>
</tr>
<tr>
<td>BIO SCI 465</td>
<td>Biostatistics</td>
<td></td>
</tr>
<tr>
<td>ECON 210</td>
<td>Economic Statistics</td>
<td></td>
</tr>
<tr>
<td>GEOG 247</td>
<td>Quantitative Analysis in Geography</td>
<td></td>
</tr>
<tr>
<td>HIST 595</td>
<td>The Quantitative Analysis of Historical Data</td>
<td></td>
</tr>
<tr>
<td>MTHSTAT 215</td>
<td>Elementary Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>PHILOS 211</td>
<td>Elementary Logic</td>
<td></td>
</tr>
<tr>
<td>POL SCI 390</td>
<td>Political Data Analysis</td>
<td></td>
</tr>
<tr>
<td>POL SCI 392</td>
<td>Survey Research</td>
<td></td>
</tr>
<tr>
<td>PSYCH 210</td>
<td>Psychological Statistics</td>
<td></td>
</tr>
<tr>
<td>SOCIOL 261</td>
<td>Introduction to Statistical Thinking in Sociology</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** This requirement is NOT the same as the University General Education Requirement for Quantitative Literacy Part B. To complete the BA, students must take one of the L&S approved courses. Not all of the courses listed here will satisfy the QL-B requirement.

### III. Foreign Language Requirement
Placement testing may be used to satisfy all or part of this requirement. Language courses (including American Sign Language) other than English taken in high school may be used to satisfy all or part of this requirement. One year of high school language equates to one semester of college work.

Completion of the L&S Language Requirement also satisfies the university-wide Foreign Language GER, but not vice versa.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH 102</td>
<td>English Composition</td>
<td>0-18</td>
</tr>
</tbody>
</table>

Successful completion of the 4th semester of college work or equivalent in one language other than English (including American Sign Language)

Successful completion of the 3rd semester of college work or equivalent in one language other than English (including American Sign Language) PLUS the 2nd semester of college work or equivalent in another language other than English (including American Sign Language)

### IV. International Requirement
See Approved Courses for the L&S International Requirement (http://catalog.uwm.edu/letters-science/approved-courses-international-requirement/) for course options.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete 3 courses (min. 9 cr) in a single foreign language</td>
<td>9</td>
</tr>
</tbody>
</table>

(not including literature-in-translation or American Sign Language) at the 3rd semester level and above

Complete 3 non-language courses (min. 9 credits) with an international content chosen from at least 2 curricular areas.

Complete 9 credits in combination of the two options above.

### V. Breadth Requirement
Along with completing the University General Education Requirements of 3 credits in the Arts (A); 6 credits in the Humanities (HU), Social Sciences (SS), and Natural Sciences (NS/NS+); and a course with the Cultural
Diversity (CD+/+) designation, L&S students must complete the Breadth requirement.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select 3 credits</td>
<td>3</td>
</tr>
</tbody>
</table>

Humanities

Complete 12 credits of L&S courses with Humanities Breadth designation; no more than 6 credits from a single subject area. *

Social Sciences

Complete 12 credits of L&S Courses with Social Science Breadth designation; no more than 6 credits from a single curricular area. *

Natural Sciences

Complete 12 credits of L&S Courses with Natural Sciences Breadth designation, including at least one laboratory or field course; no more than 6 credits from a single curricular area. *

Cultural Diversity

Complete 3 credits in a course with Cultural Diversity (CD) designation. **

* Students should check their course selections carefully with the list of approved L&S Breadth Courses (http://catalog.uwm.edu/letters-science/breadth-requirement-course-list/). Students are advised to select at least 6 credits worth of courses in each of the Humanities, Social Science, and Natural Sciences areas that can satisfy both the campus-wide General Education Requirements and the L&S Breadth requirement.

** Students are advised to select a course that satisfies the Cultural Diversity requirement as well as a Humanities or Social Science breadth/GER requirement.

VI. The Major

The College of Letters and Science requires that students attain at least a 2.0 GPA in all credits in the major attempted at UWM. In addition, students must attain a 2.0 GPA on all major credits attempted, including any transfer work. Individual departments or programs may require higher GPAs for graduation. Some departmental majors require courses from other departments. Contact your major department for information on whether those credits will count as part of the major GPA. The College requires that students complete in residence at UWM at least 15 upper-division (numbered 300 and above) credits in the major in residence at UWM. The College of Letters & Science requires that students attain at least a 2.0 GPA on all credits in the major attempted at UWM. In addition, students must attain a 2.0 GPA on all major credits attempted, including any transfer work.

Research Requirement

Within their majors, students must complete a research experience approved by the L&S faculty. A list of courses satisfying the research requirement in each major can be found here (http://catalog.uwm.edu/letters-science/approved-courses-research-requirement/).

VII. The Minor

The College of Letters and Science requires that students attain at least a 2.0 GPA in all credits in the minor attempted at UWM. In addition, students must attain a 2.0 GPA on all minor credits attempted, including any transfer work.

Conservation and Environmental Science Major Requirements

For those students interested in the Water Track, please see the Bachelor of Science in Conservation and Environmental Science (http://catalog.uwm.edu/letters-science/conservation-environmental-science/conservation-environmental-science-bs/).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATM SCI 330</td>
<td>Air-Pollution Meteorology</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 289</td>
<td>Internship in Biological Sciences, Lower Division</td>
<td>1-6</td>
</tr>
<tr>
<td>BIO SCI 315</td>
<td>Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 325</td>
<td>Genetics</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 358</td>
<td>Birds of Wisconsin</td>
<td>2</td>
</tr>
<tr>
<td>BIO SCI 370</td>
<td>Mammalian Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 383</td>
<td>General Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 406</td>
<td>Marine Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 440</td>
<td>Ecology and Evolution of Amphibians and Reptiles</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 451</td>
<td>Field Methods in Conservation</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 458</td>
<td>Community Ecology</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 465</td>
<td>Biostatistics</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 475</td>
<td>Tropical Biology.</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 480</td>
<td>Ecological Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 489</td>
<td>Internship in Biological Sciences, Upper Division</td>
<td>1-6</td>
</tr>
<tr>
<td>BIO SCI 500</td>
<td>Plant Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 502</td>
<td>Introduction to Programming and Modeling in Ecology and Evolution</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 505</td>
<td>Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 511</td>
<td>Ichthyology</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 512</td>
<td>Limnology I</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 523</td>
<td>Evolution and Ecology of Birds</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 540</td>
<td>Microbial Diversity and Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 562</td>
<td>Topics in Field Biology:</td>
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<tr>
<td>BIO SCI 611</td>
<td>Seminar on Recent Advances in Limnology and Oceanography</td>
<td>2</td>
</tr>
<tr>
<td>CES 289</td>
<td>Internship in Environmental Studies, Lower Division</td>
<td>1-6</td>
</tr>
<tr>
<td>CES 451</td>
<td>Field Methods in Conservation</td>
<td>3</td>
</tr>
<tr>
<td>CES 461</td>
<td>The Politics and Policy of Sustainability</td>
<td>3</td>
</tr>
<tr>
<td>CES 489</td>
<td>Internship in Environmental Studies, Upper Division</td>
<td>1-6</td>
</tr>
<tr>
<td>CES 497</td>
<td>Study Abroad:</td>
<td>1-12</td>
</tr>
<tr>
<td>CES 499</td>
<td>Ad Hoc:</td>
<td>1-6</td>
</tr>
<tr>
<td>CES 515</td>
<td>Environmental Law for Natural Resource Managers</td>
<td>3</td>
</tr>
<tr>
<td>CES 550</td>
<td>Introduction to Science Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>CES 551</td>
<td>Application of Science Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>CES 571</td>
<td>Practical Approaches to a Sustainable Future</td>
<td>3</td>
</tr>
<tr>
<td>CES 651</td>
<td>Principles of Stream Management and Restoration</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 104</td>
<td>General Chemistry and Qualitative Analysis</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 221</td>
<td>Elementary Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 341</td>
<td>Introductory Survey of Organic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 342</td>
<td>Introductory Organic Chemistry Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 343</td>
<td>Organic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 344</td>
<td>Organic Chemistry Laboratory</td>
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</tr>
<tr>
<td>CHEM 345</td>
<td>Organic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 501</td>
<td>Introduction to Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 524</td>
<td>Instrumental Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 560</td>
<td>Biophysical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 603</td>
<td>Introduction to Biochemistry Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>ECON 328</td>
<td>Environmental Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 525</td>
<td>The Economics of Water</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 215</td>
<td>Introduction to Geographic Information Science</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 247</td>
<td>Quantitative Analysis in Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 304</td>
<td>Human Impact on the Environment</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 306</td>
<td>Natural Hazards</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 310</td>
<td>General Climatology</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 340</td>
<td>Biogeography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 403</td>
<td>Remote Sensing: Environmental and Land Use Analysis</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 450</td>
<td>Climates of the Past and Climate Change</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 455</td>
<td>Applied Climatology</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 464</td>
<td>Environmental Problems</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 515</td>
<td>Watershed Analysis and Modeling</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 520</td>
<td>Physical Geography of the City</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 525</td>
<td>Geographic Information Science</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 547</td>
<td>Spatial Analysis</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 564</td>
<td>Urban Environmental Change and Social Justice</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 625</td>
<td>Intermediate Geographic Information Science</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 650</td>
<td>Cartography</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 415</td>
<td>Hydrogeography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 420</td>
<td>Methods and Principles in Land Form Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 450</td>
<td>Climates of the Past and Climate Change</td>
<td>3</td>
</tr>
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<tr>
<td>GEOG 520</td>
<td>Physical Geography of the City</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 525</td>
<td>Geographic Information Science</td>
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<tr>
<td>GEOG 625</td>
<td>Intermediate Geographic Information Science</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 301</td>
<td>Principles of Mineralogy</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 400</td>
<td>Water Quality</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 409</td>
<td>Process Geomorphology</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 443</td>
<td>Glacial and Pleistocene Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 463</td>
<td>Physical Hydrogeology</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 464</td>
<td>Chemical Hydrogeology</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 562</td>
<td>Environmental Surface Hydrology</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 563</td>
<td>Field Methods in Hydrogeology</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 697</td>
<td>Seminar in the Geological Sciences:</td>
<td>1-3</td>
</tr>
<tr>
<td>HIST 432</td>
<td>North American Geological History</td>
<td>3</td>
</tr>
<tr>
<td>MTHSTAT 215</td>
<td>Elementary Statistical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 350</td>
<td>Environmental Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Approved CES Course Electives Outside of the College of Letters and Science**

Although the following courses may count as credits toward the CES major requirements, they do not count to satisfy the advanced L&S credits requirement for the degree. Consult the program coordinator before enrolling any of these courses.
to campus’ general education requirements and the College’s degree for all students with a major in the College, particularly as it relates. The College of Letters and Science provides general academic advising courses. A Letters & Science advisor can provide a current list of recommended political science, and sociology are recommended. The coordinator or a highly desirable. Additionally, introductory courses in economics, ethics, technical writing. Computer literacy and knowledge of statistics also are essential; students should take courses in public speaking and. In addition to course work in the major, good communication skills are essential; students should take courses in public speaking and technical writing. Computer literacy and knowledge of statistics also are highly desirable. Additionally, introductory courses in economics, ethics, political science, and sociology are recommended. The coordinator or a Letters and Science advisor can provide a current list of recommended courses.

### Declaration of Major

Students wishing to declare the major can obtain the necessary information and materials from the Biological Sciences Office (Lapham Hall, Room 181) or the CES Program Coordinator's office (Lapham Hall, Room 393) or from their College of Letters and Science advisor. In order to be accepted into the CES program, students should be in their sophomore year and have completed:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CES 210</td>
<td>Introduction to Conservation and Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 150</td>
<td>Foundations of Biological Sciences I</td>
<td>4</td>
</tr>
<tr>
<td>GEO SCI 100</td>
<td>Introduction to the Earth</td>
<td>3</td>
</tr>
<tr>
<td>or GEOG 120</td>
<td>Our Physical Environment</td>
<td></td>
</tr>
</tbody>
</table>

In addition to course work in the major, good communication skills are essential; students should take courses in public speaking and technical writing. Computer literacy and knowledge of statistics also are highly desirable. Additionally, introductory courses in economics, ethics, political science, and sociology are recommended. The coordinator or a Letters and Science advisor can provide a current list of recommended courses.

### Letters & Science Advising

The College of Letters and Science provides general academic advising for all students with a major in the College, particularly as it relates to campus’ general education requirements and the College’s degree requirements. We also provide specialized advising for pre-professional students (pre-med, pre-dental, pre-pharmacy, etc.) regardless if their major is in Letters and Science or not. Prospective students, including high school students and students seeking to transfer to a program in Letters and Science may also receive advising from our admissions counselors.

Upon admission, students are assigned an advisor in the College advising office. Academic advising is available Monday through Friday from 8:30 a.m. to 4:30 p.m. by appointment. Appointments outside of these times may be available and phone appointments are available for online students. The advising office (https://uwm.edu/letters-science/advising/contact-advising/) is located on the first floor of Holton Hall. Current students should call (414) 229-4654 to schedule an appointment or use the Navigate website (https://uwmilwaukee.campus.eab.com) to make an appointment with your assigned advisor; online scheduling is only available if you already have a Letters & Science advisor assigned to you. Prospective students should call (414) 229-7711 or email let-sci@uwm.edu.

When students declare a major, they will receive an additional faculty advisor located within the major department who will assist with requirements for that major. Students should read the "Declaration of Major" information on the website of the major that they are interested in. In some cases, the student will need to choose a faculty advisor as part of the declaration process.

All students are cautioned to consult their Letters & Science academic advisor AND their major advisor prior to each registration period to ensure they understand all requirements. Do not rely on pre-printed sample plans, as they are intended to be samples only and may not be right for your particular situation.

### Honors in the College of Letters and Science

#### Dean's Honor List

GPA of 3.750 or above, earned on a full-time student's GPA on 12 or more graded credits in a given semester.

#### Honors College Degree and Honors College Degree with Distinction

Granted to graduating seniors who complete Honors College requirements, as listed in the Honors College (http://catalog.uwm.edu/opportunities-resources/honors-college/) section of this site.

#### Commencement Honors

Students with a cumulative GPA of 3.500 or above, based on a minimum of 40 graded UWM credits earned prior to the final semester, will receive all-university commencement honors and be awarded the traditional gold cord at the December or May Honors Convocation. Please note that for honors calculation, the GPA is not rounded and is truncated at the third decimal (e.g., 3.499).

#### Final Honors

Earned on a minimum of 60 graded UWM credits: Cum Laude - 3.500 or above; Magna Cum Laude - 3.650 or above; Summa Cum Laude - 3.800 or above.

#### Contact Information

Current Students contact Mai Phillips, phillipm@uwm.edu
Prospective Students contact a Letters & Science Admissions Counselor at (414) 229-7711 or let-sci@uwm.edu

https://uwm.edu/conservation-environmental-science/undergraduate/