NATURAL RESOURCES & ENVIRONMENTAL SCIENCES: ENVIRONMENTAL SCIENCE & MANAGEMENT, BS

for the degree of Bachelor of Science Major in Natural Resources & Environmental Sciences, Environmental Science & Management Concentration

department website: https://nres.illinois.edu/
department faculty: https://nres.illinois.edu/directory/faculty
overview of college admissions & requirements: Agricultural, Consumer & Environmental Sciences (http://catalog.illinois.edu/schools/aces/academic-units/#text)
college website: https://aces.illinois.edu/

Environmental Science and Management emphasizes the biological, chemical, and physical features of the environment. It is designed for students interested in the management of soil and water resources and in understanding how to protect and improve environmental quality. The concentration includes coursework in environmental chemistry, environmental microbiology, ecohydrology, and environmental quality, as well as courses focused more specifically on soil and water sciences.

for the degree of Bachelor of Science Major in Natural Resources & Environmental Sciences, Environmental Science & Management Concentration

Prescribed Courses including Campus General Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Composition I and Speech</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>6-7</td>
<td></td>
</tr>
<tr>
<td>RHET 105 &amp; CMN 101</td>
<td>Writing and Research and Public Speaking (or equivalent) (see College Composition I requirement)</td>
<td></td>
</tr>
<tr>
<td>CMN 111 &amp; CMN 112</td>
<td>Oral &amp; Written Comm I and Oral &amp; Written Comm II</td>
<td></td>
</tr>
<tr>
<td>Advanced Composition</td>
<td>3-4</td>
<td></td>
</tr>
<tr>
<td>Select from campus approved list</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural Studies</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Select one course from Western culture, one from non-Western culture, and one from U.S. minority culture from campus approved lists.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Language</td>
<td>3-4</td>
<td></td>
</tr>
<tr>
<td>Coursework at or above the third level is required for graduation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantitative Reasoning I</td>
<td>4-5</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus</td>
<td></td>
</tr>
<tr>
<td>MATH 221</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MATH 234</td>
<td>Calculus for Business I</td>
<td></td>
</tr>
<tr>
<td>Quantitative Reasoning II</td>
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<td></td>
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Select one of the following: 3-4

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ACE 261</td>
<td>Applied Statistical Methods</td>
</tr>
<tr>
<td>CPSC 241</td>
<td>Intro to Applied Statistics</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Economic Statistics I</td>
</tr>
<tr>
<td>PSYC 235</td>
<td>Intro to Statistics</td>
</tr>
<tr>
<td>SOC 280</td>
<td>Intro to Social Statistics</td>
</tr>
<tr>
<td>STAT 100</td>
<td>Statistics</td>
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</table>

Natural Sciences and Technology

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 102</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 103 &amp; CHEM 105</td>
<td>General Chemistry II and General Chemistry Lab II</td>
<td>4</td>
</tr>
<tr>
<td>IB 103</td>
<td>Introduction to Plant Biology</td>
<td>4</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>4-5</td>
<td></td>
</tr>
<tr>
<td>IB 150</td>
<td>Organismal &amp; Evolutional Biol</td>
<td></td>
</tr>
<tr>
<td>&amp; IB 151</td>
<td>Organismal &amp; Evol Biol Lab</td>
<td></td>
</tr>
<tr>
<td>or IB 104</td>
<td>Animal Biology</td>
<td></td>
</tr>
</tbody>
</table>

Humanities and the Arts

Select from campus approved list. 6

Social and Behavioral Sciences

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE 100</td>
<td>Agr Cons and Resource Econ</td>
<td>3-4</td>
</tr>
<tr>
<td>or ECON 102</td>
<td>Microeconomic Principles</td>
<td></td>
</tr>
<tr>
<td>Select one additional course from campus approved list.</td>
<td>3-4</td>
<td></td>
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</table>

Natural Resources and Environmental Sciences Required (Core)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>NRES 102</td>
<td>Introduction to NRES</td>
<td>3</td>
</tr>
<tr>
<td>NRES 201</td>
<td>Introductory Soils</td>
<td>4</td>
</tr>
<tr>
<td>NRES 219</td>
<td>Principles of Ecosystem Mgmt</td>
<td>3</td>
</tr>
<tr>
<td>NRES 287</td>
<td>Environment and Society</td>
<td>3</td>
</tr>
<tr>
<td>NRES 325</td>
<td>Natural Resource Policy Mgmt</td>
<td>3</td>
</tr>
<tr>
<td>NRES 348</td>
<td>Fish and Wildlife Ecology</td>
<td>3</td>
</tr>
<tr>
<td>NRES 421</td>
<td>Quantitative Methods in NRES</td>
<td>3</td>
</tr>
<tr>
<td>NRES 454</td>
<td>GIS in Natural Resource Mgmt</td>
<td>4</td>
</tr>
<tr>
<td>NRES 456</td>
<td>Integrative Ecosystem Management</td>
<td>3</td>
</tr>
<tr>
<td>NRES 285</td>
<td>Field Experience</td>
<td>1,2</td>
</tr>
<tr>
<td>One additional Field Experience course</td>
<td>1-2</td>
<td></td>
</tr>
<tr>
<td>NRES 285</td>
<td>Field Experience (repeatable)</td>
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</tr>
<tr>
<td>NRES 293</td>
<td>Professional Internship</td>
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<tr>
<td>NRES 294</td>
<td>Resident Internship</td>
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</tr>
<tr>
<td>NRES 295</td>
<td>Undergrad Research or Thesis</td>
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ACES Required

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ACES 101</td>
<td>Contemporary Issues in ACES</td>
<td>2</td>
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Required Concentration

Concentration prescribed courses. See specific requirements for each concentration listed below. 19-29

Total Hours 126

Information listed in this catalog is current as of 12/2019
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRES 351</td>
<td>Introduction to Environmental Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>NRES 402</td>
<td>Ecohydrology and Water Management</td>
<td>3</td>
</tr>
<tr>
<td>NRES 475</td>
<td>Environmental Microbiology</td>
<td>3</td>
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</table>

**Concentration Elective Requirements**

Two Soil and Water Science Courses 6-8

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRES 401</td>
<td>Watershed Hydrology</td>
</tr>
<tr>
<td>NRES 429</td>
<td>Aquatic Ecosystem Conservation</td>
</tr>
<tr>
<td>NRES 471</td>
<td>Pedology</td>
</tr>
<tr>
<td>NRES 485</td>
<td>Stream Ecosystem Management</td>
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<tr>
<td>NRES 487</td>
<td>Soil Chemistry</td>
</tr>
<tr>
<td>NRES 488</td>
<td>Soil Fertility and Fertilizers</td>
</tr>
<tr>
<td>NRES 490</td>
<td>Surface Water System Chemistry</td>
</tr>
<tr>
<td>ABE 454</td>
<td>Environmental Soil Physics</td>
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<tr>
<td>GEOG 406</td>
<td>Fluvial Geomorphology</td>
</tr>
<tr>
<td>GEOG 459</td>
<td>Ecohydraulics</td>
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</tbody>
</table>

One Environmental Quality Course 3-4

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>NRES 403</td>
<td>Watersheds and Water Quality</td>
</tr>
<tr>
<td>NRES 438</td>
<td>Soil Nutrient Cycling</td>
</tr>
<tr>
<td>NRES 474</td>
<td>Soil and Water Conservation</td>
</tr>
<tr>
<td>CPSC 336</td>
<td>Tomorrow's Environment</td>
</tr>
<tr>
<td>CPSC 431</td>
<td>Plants and Global Change</td>
</tr>
<tr>
<td>TSM 352</td>
<td>Land and Water Mgt Systems</td>
</tr>
<tr>
<td>UP 405</td>
<td>Watershed Ecology and Planning</td>
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<tr>
<td>ATMS 449</td>
<td>Biogeochemical Cycles</td>
</tr>
<tr>
<td>ESE 320</td>
<td>Water Planet, Water Crisis</td>
</tr>
<tr>
<td>GEOL 380</td>
<td>Environmental Geology</td>
</tr>
<tr>
<td>IB 485</td>
<td>Environ Toxicology &amp; Health</td>
</tr>
</tbody>
</table>

**Total Concentration-Required Hours** 18-21