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.

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Prescribed Courses including Campus General Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Composition I and Speech</td>
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<tr>
<td>Select one of the following:</td>
<td>6-7</td>
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<tr>
<td>RHET 105 &amp; CMN 101 Writing and Research and Public Speaking (or equivalent) (see College Composition I requirement)</td>
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<tr>
<td>CMN 111 &amp; CMN 112 Oral &amp; Written Comm I and Oral &amp; Written Comm II</td>
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Advanced Composition

Select from campus approved list | 3-4 |

Cultural Studies

Select one course from Western culture, one from non-Western culture, and one from U.S. minority culture from campus approved lists. | 9 |

Foreign Language

Coursework at or above the third level is required for graduation.

Quantitative Reasoning I

Select one of the following: | 4-5 |
| MATH 220 Calculus |       |
| MATH 221 Calculus I |     |
| MATH 234 Calculus for Business I |    |

Quantitative Reasoning II

Select one of the following: | 3-4 |
| ACE 261 Applied Statistical Methods |     |
| CPSC 241 Intro to Applied Statistics |       |
| ECON 202 Economic Statistics I |       |
| PSYC 235 Intro to Statistics |       |
| SOC 280 Intro to Social Statistics |       |
| STAT 100 Statistics |       |

Natural Sciences and Technology

CHEM 102 General Chemistry I | 4 |
& CHEM 103 and General Chemistry Lab I |      |
CHEM 104 General Chemistry II | 4 |
& CHEM 105 and General Chemistry Lab II |      |
IB 103 Introduction to Plant Biology | 4 |

Select one of the following: | 4-5 |
| IB 104 Animal Biology or IB 150 Organismal & Evolutionary Biol & IB 151 Organismal & Evol Biol Lab |        |

Humanities and the Arts

Select from campus approved list. | 6 |

Social and Behavioral Sciences

ACE 100 Introduction to Applied Microeconomics or ECON 102 Microeconomic Principles | 3-4 |

Select one additional course from campus approved list. | 3-4 |

Natural Resources and Environmental Sciences Required (Core)

NRES 102 Introduction to NRES | 3 |
NRES 201 Introductory Soils | 4 |
NRES 219 Applied Ecology | 3 |
NRES 287 Environment and Society | 3 |
NRES 325 Natural Resource Policy Mgmt | 3 |
NRES 348 Fish and Wildlife Ecology | 3 |
NRES 421 Quantitative Methods in NRES | 3 |
NRES 454 GIS in Natural Resource Mgmt | 4 |
NRES 456 Integrative Ecosystem Management | 3 |
NRES 285 Field Experience | 1,2 |

One additional Field Experience course | 1-2 |
| NRES 285 Field Experience (repeatable) |       |
| NRES 293 Professional Internship |       |
| NRES 294 Resident Internship |       |
| NRES 295 Undergrad Research or Thesis |       |
| NRES 396 UG Honors Research or Thesis |       |

ACES Required

ACES 101 Contemporary Issues in ACES | 2 |

Required Concentration

Information listed in this catalog is current as of 06/2021
Concentration prescribed courses. See specific requirements for each concentration listed below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</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>or NRES 401</td>
<td>Watershed Hydrology</td>
<td></td>
</tr>
<tr>
<td>NRES 475</td>
<td>Environmental Microbiology</td>
<td>3</td>
</tr>
</tbody>
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**Concentration Elective Requirements**

Two Soil and Water Science Courses 6-8

- NRES 429 Aquatic Ecosystem Conservation
- NRES 471 Pedology
- NRES 485 Stream Ecosystem Management
- NRES 487 Soil Chemistry
- NRES 488 Soil Fertility and Fertilizers
- NRES 490 Surface Water System Chemistry
- ABE 454 Environmental Soil Physics
- GEOG 406 Fluvial Geomorphology
- GEOG 459 Ecohydraulics

One Environmental Quality Course 3-4

- NRES 403 Watersheds and Water Quality
- NRES 438 Soil Nutrient Cycling
- NRES 474 Soil and Water Conservation
- CPSC 336 Tomorrow’s Environment
- CPSC 431 Plants and Global Change
- TSM 352 Land and Water Mgmt Systems
- UP 405 Watershed Ecology and Planning
- ATMS 449 Biogeochemical Cycles
- ESE 320 Water Planet, Water Crisis
- GEOL 380 Environmental Geology
- IB 485 Environ Toxicology & Health

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