NATURAL RESOURCES & ENVIRONMENTAL SCIENCES: ECOSYSTEM STEWARDSHIP & RESTORATION ECOLOGY, BS

for the degree of Bachelor of Science Major in Natural Resources & Environmental Sciences, Ecosystem Stewardship & Restoration Ecology Concentration

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

Ecosystem Stewardship and Restoration Ecology emphasizes the ecology, structure, and function of ecosystems, with a particular focus on plant communities and their interactions with the living and non-living parts of ecosystems. It is designed for students interested in the fundamental properties and practices underlying the restoration and management of soil, watershed, wetland, forest, and grassland ecosystems. The concentration includes coursework in the areas of restoration, landscape, and plant ecology, as well as courses focused on specific ecosystems (e.g. streams, wetlands, agroecosystems), invasive species, community ecology, and ecosystem science.

for the degree of Bachelor of Science Major in Natural Resources & Environmental Sciences, Ecosystem Stewardship & Restoration Ecology Concentration

<table>
<thead>
<tr>
<th>Prescribed Courses including Campus General Education</th>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Composition I and Speech</strong></td>
<td></td>
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<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
<td>6-7</td>
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<tr>
<td>RHET 105 Writing and Research</td>
<td></td>
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<tr>
<td>&amp; CMN 101 and Public Speaking (or equivalent) (see College Composition I requirement)</td>
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<tr>
<td>CMN 111 Oral &amp; Written Comm I</td>
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<tr>
<td>&amp; CMN 112 and Oral &amp; Written Comm II</td>
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<tr>
<td><strong>Advanced Composition</strong></td>
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<tr>
<td>Select from campus approved list</td>
<td></td>
<td></td>
<td>3-4</td>
</tr>
<tr>
<td><strong>Cultural Studies</strong></td>
<td></td>
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<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>
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<td>9</td>
</tr>
<tr>
<td><strong>Foreign Language</strong></td>
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<tr>
<td>Coursework at or above the third level is required for graduation.</td>
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<tr>
<td><strong>Quantitative Reasoning I</strong></td>
<td></td>
<td></td>
<td>4-5</td>
</tr>
<tr>
<td>Select one of the following:</td>
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<tr>
<td>MATH 220 Calculus</td>
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<tr>
<td>MATH 221 Calculus I</td>
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<tr>
<td><strong>Quantitative Reasoning II</strong></td>
<td></td>
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<tr>
<td>Select one of the following:</td>
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<td>3-4</td>
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<tr>
<td>ACE 261 Applied Statistical Methods</td>
<td></td>
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<tr>
<td>CPSC 241 Intro to Applied Statistics</td>
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<td>ECON 202 Economic Statistics I</td>
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<tr>
<td>PSYC 235 Intro to Statistics</td>
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<td>SOC 280 Intro to Social Statistics</td>
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<tr>
<td>STAT 100 Statistics</td>
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**Natural Sciences and Technology**

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CHEM 102 General Chemistry I &amp; CHEM 103 and General Chemistry Lab I</td>
<td>4</td>
<td></td>
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<tr>
<td>CHEM 104 General Chemistry II &amp; CHEM 105 and General Chemistry Lab II</td>
<td>4</td>
<td></td>
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<tr>
<td>IB 103 Introduction to Plant Biology</td>
<td>4</td>
<td></td>
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<tr>
<td>Select one of the following:</td>
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<td>4-5</td>
</tr>
<tr>
<td>IB 104 Animal Biology or IB 150 Organismal &amp; Evolutionary Biol &amp; IB 151 Organismal &amp; Evol Biol Lab</td>
<td></td>
<td></td>
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<tr>
<td>Select one of the following:</td>
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<td>3-5</td>
</tr>
<tr>
<td>GEOG 103 Earth's Physical Systems</td>
<td></td>
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<tr>
<td>GEOL 107 Physical Geology</td>
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<tr>
<td>PHYS 101 College Physics: Mech &amp; Heat</td>
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<tr>
<td>PHYS 211 University Physics: Mechanics</td>
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<tr>
<td>MCB 100 Introductory Microbiology</td>
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</tbody>
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**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)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>NRES 102 Introduction to NRES</td>
<td>3</td>
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<tr>
<td>NRES 201 Introductory Soils</td>
<td>4</td>
<td></td>
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<tr>
<td>NRES 219 Applied Ecology</td>
<td>3</td>
<td></td>
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<tr>
<td>NRES 287 Environment and Society</td>
<td>3</td>
<td></td>
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<tr>
<td>NRES 325 Natural Resource Policy Mgmt</td>
<td>3</td>
<td></td>
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<tr>
<td>NRES 348 Fish and Wildlife Ecology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NRES 421 Quantitative Methods in NRES</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NRES 454 GIS in Natural Resource Mgmt</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>NRES 456 Integrative Ecosystem Management</td>
<td>3</td>
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</tr>
<tr>
<td>NRES 285 Field Experience</td>
<td>1,2</td>
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</table>

One additional Field Experience course 1-2

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>NRES 285 Field Experience (repeatable)</td>
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<tr>
<td>NRES 293 Professional Internship</td>
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<td>NRES 294 Resident Internship</td>
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<tr>
<td>NRES 295 Undergrad Research or Thesis</td>
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<tr>
<td>NRES 396 UG Honors Research or Thesis</td>
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**ACES Required**

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

**Required Concentration**

Information listed in this catalog is current as of 07/2021
Concentration prescribed courses. See specific requirements for each concentration listed below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRES 419</td>
<td>Env and Plant Ecosystems</td>
<td>3</td>
</tr>
<tr>
<td>NRES 420</td>
<td>Restoration Ecology</td>
<td>4</td>
</tr>
<tr>
<td>NRES 465</td>
<td>Landscape Ecology</td>
<td>3</td>
</tr>
</tbody>
</table>

### Concentration Elective Requirements

- **Two Ecology Courses** (6-7)
  - NRES 302 Dendrology
  - NRES 362 Ecology of Invasive Species
  - NRES 415 Native Plant ID and Floristics
  - CPSC 431 Plants and Global Change
  - IB 452 Ecosystem Ecology
  - IB 453 Community Ecology
  - IB 439 Biogeography

- **One Ecosystem or Management Course** (3-4)
  - NRES 401 Watershed Hydrology
  - NRES 402 Ecohydrology and Water Management
  - NRES 418 Wetland Ecology & Management
  - NRES 427 Modeling Natural Resources
  - NRES 429 Aquatic Ecosystem Conservation
  - NRES 485 Stream Ecosystem Management
  - CPSC 437 Principles of Agroecology
  - CEE 432 Stream Ecology
  - IB 361 Ecology and Human Health
  - IB 451 Conservation Biology
  - UP 405 Watershed Ecology and Planning
  - UP 406 Urban Ecology

**Total Concentration-Required Hours:** 19-21