BS with a Major in Earth and Environmental Sciences

Program Codes: 20FT1174BS

Degree Requirements
To earn a Bachelor of Science in Liberal Arts and Sciences degree from UIC, students need to complete university, college, and department degree requirements. The Department of Earth and Environmental Sciences degree requirements are outlined below. Students should consult the College of Liberal Arts and Sciences section for additional degree requirements and college academic policies.

### Summary of Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Prerequisite and Collateral Courses</td>
<td></td>
<td>26-28</td>
</tr>
<tr>
<td>Core Courses</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Selective Courses</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>General Education and Electives to reach minimum Total Hours</td>
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<td>53-55</td>
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</table>

Total Hours 120

**General Education**
See General Education and Writing-in-the-Discipline in the College of Liberal Arts and Sciences section for information on meeting these requirements. Students should consult the course lists below and their advisors to determine which courses are counted toward the General Education and Writing-in-the-Discipline requirements.

### Required Prerequisite and Collateral Courses

#### Code Title Hours

**Required Courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOS 100</td>
<td>Biology of Cells and Organisms a</td>
<td>4</td>
</tr>
<tr>
<td>EAES 101</td>
<td>Global Environmental Change a</td>
<td>4</td>
</tr>
<tr>
<td>EAES 111</td>
<td>Earth, Energy, and the Environment a</td>
<td>4</td>
</tr>
<tr>
<td>EAES 200</td>
<td>Field Work in Missouri a</td>
<td>2</td>
</tr>
<tr>
<td>EAES 230</td>
<td>Earth Materials</td>
<td>4</td>
</tr>
<tr>
<td>EAES 285</td>
<td>Earth Systems</td>
<td>4</td>
</tr>
<tr>
<td>EAES 290</td>
<td>Current Topics in Earth and Environmental Sciences b</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Hours 20

(a) These courses are approved for the Analyzing the Natural World General Education category.

(b) Each of the following pairs will be considered one course in meeting the LAS General Education requirements: PHYS 105/PHYS 106 and PHYS 107/PHYS 108.

(c) General Education credit is given for successful completion of both CHEM 122 and CHEM 123 or CHEM 124 and CHEM 125.

(d) MATH 180 fulfills the LAS Quantitative Reasoning requirement.

### Core Courses

- **Code Title**
- **EAES 101** Global Environmental Change a
- **EAES 111** Earth, Energy, and the Environment a
- **EAES 200** Field Work in Missouri a
- **EAES 230** Earth Materials
- **EAES 285** Earth Systems
- **EAES 290** Current Topics in Earth and Environmental Sciences b

Total Hours 20

(a) This course is approved for the Analyzing the Natural World General Education category.

(b) EAES 290 fulfills the Writing-in-the-Discipline requirement.

### Selective Courses

Students must select at least 19 hours with at least one course from each of the following groups. In order to reach the 19 hours, one course can be chosen, with permission of the director of undergraduate studies, from an approved list of courses in environmental studies offered in other departments; these courses must be at the 200-level or above.

- **Code Title**
- **Group I: Solid Earth Materials**
  - **EAES 320** Mineralogy
  - **EAES 422** Crystal Chemistry
  - **EAES 430** Petrology

- **Group II: Surface Environments and Processes**
  - **EAES 350** Sedimentary Environments
  - **EAES 470** Environmental Geomorphology
  - **EAES 473** Soils and the Environment
  - **EAES 475** Hydrology/Hydrogeology

- **Group III: Geochemistry and Geobiology**
  - **EAES 360** Introduction to Paleontology
  - **EAES 415** Environmental Geochemistry
  - **EAES 416** Organic Geochemistry
  - **EAES 418** Introduction to Biogeochemistry
  - **EAES 460** Earth System History
  - **EAES 466** Principles of Paleontology

- **Group IV: Geophysical and Mathematical Methods**
  - **EAES 440** Structural Geology and Tectonics

(a) These courses are approved for the Analyzing the Natural World General Education category.

(b) Each of the following pairs will be considered one course in meeting the LAS General Education requirements: PHYS 105/PHYS 106 and PHYS 107/PHYS 108.

(c) General Education credit is given for successful completion of both CHEM 122 and CHEM 123 or CHEM 124 and CHEM 125.

(d) MATH 180 fulfills the LAS Quantitative Reasoning requirement.
BS with a Major in Earth and Environmental Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>EAES 444</td>
<td>Geophysics</td>
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<td></td>
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<tr>
<td>EAES 448</td>
<td>Plate Tectonics</td>
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<tr>
<td>EAES 480</td>
<td>Statistical Methods in Earth and Environmental Sciences</td>
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<tr>
<td>EAES 484</td>
<td>Planetary Science</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Approved summer course in geological or environmental field methods (4-6 hours)</td>
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<td>Total Hours</td>
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<td>19</td>
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**Recommended Plan of Study**

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<tr>
<td>Fall Semester</td>
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<tr>
<td>ENGL 160</td>
<td>Academic Writing I: Writing in Academic and Public Contexts</td>
<td>3</td>
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<tr>
<td>CHEM 122</td>
<td>General Chemistry I Lecture</td>
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<td>CHEM 123</td>
<td>General Chemistry Laboratory I</td>
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<tr>
<td>EAES 101</td>
<td>Global Environmental Change</td>
<td>4</td>
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<tr>
<td>Foreign Language</td>
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<td></td>
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<td>Spring Semester</td>
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<tr>
<td>ENGL 161</td>
<td>Academic Writing II: Writing for Inquiry and Research</td>
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<td>CHEM 124</td>
<td>General Chemistry II Lecture</td>
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<td>CHEM 125</td>
<td>General Chemistry Laboratory II</td>
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<td>Earth, Energy, and the Environment</td>
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<td>Foreign Language</td>
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<td><strong>Second Year</strong></td>
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<td>EAES 230</td>
<td>Earth Materials</td>
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<td>MATH 180</td>
<td>Calculus I</td>
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<td>Foreign Language</td>
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<td>EAES 290</td>
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<td></td>
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<tr>
<td>PHYS 141</td>
<td>General Physics I (Mechanics)</td>
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<tr>
<td>PHYS 105 &amp; PHYS 106</td>
<td>Introductory Physics I - Lecture and Introductory Physics I - Laboratory</td>
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<td>Foreign Language</td>
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<td>EAES 285</td>
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<td>EAES 200</td>
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<td>Hours</td>
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<tr>
<td>PHYS 142</td>
<td>General Physics II (Electricity and Magnetism)</td>
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<td>PHYS 107 &amp; PHYS 108</td>
<td>Introductory Physics II - Lecture and Introductory Physics II - Laboratory</td>
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<td>BIOS 100</td>
<td>Biology of Cells and Organisms</td>
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<td>BIOS 101</td>
<td>Biology of Populations and Communities</td>
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