GEOLOGY: ENVIRONMENTAL GEOLGY, BS

for the degree of Bachelor of Science Major in Geology, Environmental Geology Concentration (Specialized Curriculum)

department website: https://www.geology.illinois.edu/undergraduate
department faculty: Geology Faculty (https://www.geology.illinois.edu/people)
overview of college admissions & requirements: Liberal Arts & Sciences (http://catalog.illinois.edu/schools/las/academic-units)
college website: https://las.illinois.edu/
email: geology@illinois.edu

The Specialized Curriculum in Geology (BS) is designed for students who plan to pursue graduate study in geology or geophysics or who wish to work professionally in the environmental field upon obtaining the bachelor's degree. It consists of geology, geophysics, and environmental geology areas, and offers more training in geology and related science than is required of students who make geology their major in the Sciences and Letters Curriculum. Students must choose one of the following: Geology, Geophysics, or Environmental Geology.

Undergraduate Degree Programs in Geology
For the Degree of Bachelor of Science in Liberal Arts and Sciences
Students select one of the following in consultation with an adviser:

- Major in Geology (Sciences and Letters) (http://catalog.illinois.edu/undergraduate/las/geology-bslas)

For the Degree of Bachelor of Science in Geology
Students select one of the following in consultation with an adviser:

- Major in Geology (Specialized Curriculum) (http://catalog.illinois.edu/undergraduate/las/geology-bs)

for the degree of Bachelor of Science Major in Geology, Environmental Geology Concentration

Graduation requires a grade point average of at least 2.0 overall and a 2.0 average in all required science and technical courses (geology, physics, mathematics, chemistry, and technical requirements listed below). The Department of Geology will supply upon request a Guide for Geology Undergraduates giving more information about the curriculum.

Departmental distinction: Students who maintain a grade point average of at least 3.5 in all geology courses and 3.0 in all other science and mathematics courses and who complete an acceptable senior thesis, including at least 4 hours credit in GEOL 492 or GEOL 493, are recommended for graduation with distinction.

General education: Students must complete the Campus General Education (https://courses.illinois.edu/gened/DEFAULT/DEFAULT) requirements including the campus general education language requirement.

Minimum hours required for graduation: 126 hours.

<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>3</td>
</tr>
<tr>
<td>CHEM 103</td>
<td>General Chemistry Lab I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 104</td>
<td>General Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 105</td>
<td>General Chemistry Lab II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 202</td>
<td>Accelerated Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 203</td>
<td>Accelerated Chemistry Lab I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 204</td>
<td>Accelerated Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 205</td>
<td>Accelerated Chemistry Lab II</td>
<td>3</td>
</tr>
</tbody>
</table>

24 hours of Geology Courses

- GEOL 107 | Physical Geology
- GEOL 208 | History of the Earth System
- GEOL 380 | Environmental Geology
- GEOL 401 | Geomorphology
- GEOL 451 | Env and Exploration Geophysics
- GEOL 452 | Introduction to Geophysics
- GEOL 470 | Introduction to Hydrogeology

Mathematics

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 220</td>
<td>Calculus</td>
</tr>
<tr>
<td>MATH 221</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH 231</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MATH 241</td>
<td>Calculus III</td>
</tr>
</tbody>
</table>

Physics

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 211</td>
<td>University Physics: Mechanics</td>
</tr>
<tr>
<td>PHYS 212</td>
<td>University Physics: Elec &amp; Mag</td>
</tr>
</tbody>
</table>

Information listed in this catalog is current as of 12/2019
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 101 &amp; PHYS 102</td>
<td>College Physics: Mech &amp; Heat and College Physics: E&amp;M &amp; Modern</td>
</tr>
<tr>
<td>STAT 400</td>
<td>Statistics and Probability I</td>
</tr>
<tr>
<td>CPSC 440</td>
<td>Applied Statistical Methods I</td>
</tr>
<tr>
<td>MCB 100</td>
<td>Introductory Microbiology</td>
</tr>
<tr>
<td>MCB 101</td>
<td>Intro Microbiology Laboratory</td>
</tr>
<tr>
<td>MATH 225</td>
<td>Introductory Matrix Theory</td>
</tr>
<tr>
<td>MATH 285</td>
<td>Intro Differential Equations</td>
</tr>
<tr>
<td>MATH 415</td>
<td>Applied Linear Algebra</td>
</tr>
<tr>
<td>MATH 417</td>
<td>Differential Equations</td>
</tr>
<tr>
<td>TAM 210</td>
<td>Methods of Applied Statistics</td>
</tr>
<tr>
<td>TAM 211</td>
<td>Statics</td>
</tr>
<tr>
<td>ENVS 431</td>
<td>Introduction to Remote Sensing</td>
</tr>
<tr>
<td>GEOG 477</td>
<td>Environmental Engineering</td>
</tr>
<tr>
<td>CHEM 232</td>
<td>Elementary Organic Chemistry I</td>
</tr>
<tr>
<td>CS 101</td>
<td>Intro Computing: Engrg &amp; Sci</td>
</tr>
<tr>
<td>CS 125</td>
<td>Intro to Computer Science</td>
</tr>
<tr>
<td>ENVS 431</td>
<td>Environ Toxicology &amp; Health</td>
</tr>
<tr>
<td>GEOG 477</td>
<td>Geol Field Methods, Western US</td>
</tr>
<tr>
<td>GEOL 411</td>
<td>Structural Geol and Tectonics</td>
</tr>
<tr>
<td>GEOL 417</td>
<td>Geol Field Methods, Western US</td>
</tr>
<tr>
<td>GEOL 432</td>
<td>Mineralogy and Mineral Optics</td>
</tr>
<tr>
<td>GEOL 436</td>
<td>Petrology and Petrography</td>
</tr>
<tr>
<td>GEOL 440</td>
<td>Sedimentology and Stratigraphy</td>
</tr>
<tr>
<td>GEOL 460</td>
<td>Geochemistry</td>
</tr>
<tr>
<td>STAT 420</td>
<td>Methods of Applied Statistics</td>
</tr>
<tr>
<td>TAM 210</td>
<td>Methods of Applied Statistics</td>
</tr>
<tr>
<td>TAM 211</td>
<td>Statics</td>
</tr>
</tbody>
</table>

1. Students who decide to follow the curriculum after first taking GEOL 100 or GEOL 103 should enroll in GEOL 208. GEOL 100 or GEOL 103 will be accepted as a substitute for GEOL 107, but students should be aware that these courses are not intended for science majors.

2. GEOL 417 is a 6-hour summer field course taught off campus.