GEOLOGY: GEOPHYSICS, BS

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

department website: https://www.geology.illinois.edu/undergraduate
department faculty: Geology Faculty (https://www.geology.illinois.edu/people)
advising: Geology advising (https://www.geology.illinois.edu/cms/One.aspx?portalId=127672&pageId=258530)
overview of college admissions & requirements: Liberal Arts & Sciences (http://catalog.illinois.edu/undergraduate/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)
• Major in Geology (Sciences and Letters), Earth and Environmental Sciences Concentration (http://catalog.illinois.edu/undergraduate/las/geology-bslas/earth-environmental-sciences)
• Major in Geology (Sciences and Letters), Earth Science Teaching Concentration (http://catalog.illinois.edu/undergraduate/las/geology-bslas/earth-science-teaching)

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)
• Major in Geology (Specialized Curriculum), Environmental Geology Concentration (http://catalog.illinois.edu/undergraduate/las/geology-bs/environmental-geology)
• Major in Geology (Specialized Curriculum), Geophysics Concentration (p. 1)

for the degree of Bachelor of Science Major in Geology, Geophysics 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 majoring in Geology can earn distinction, high distinction, and highest distinction upon graduation. The requirements for these awards are:

Distinction: A minimum cumulative grade point average of 3.3, and have also completed an approved independent study project, approved senior thesis, or approved capstone

High Distinction: A minimum cumulative grade point average of 3.5, and have also completed an approved independent study project, approved senior thesis, or approved capstone

Highest Distinction: A minimum cumulative grade point average of 3.7, and also completed an approved senior thesis or approved research capstone

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.

Code Title Hours
Chemistry: Select one group of courses:
CHEM 102 General Chemistry I 8-9
CHEM 103 General Chemistry Lab I
CHEM 104 General Chemistry II
CHEM 105 General Chemistry Lab II
or
CHEM 202 Accelerated Chemistry I
CHEM 203 Accelerated Chemistry Lab I
CHEM 204 Accelerated Chemistry II
CHEM 205 Accelerated Chemistry Lab II

22 hours of Geology Courses
GEOL 107 Physical Geology 1 4
GEOL 208 History of the Earth System 4
GEOL 452 Introduction to Geophysics 4
10 additional hours of 300 or 400 level geology courses 10

Mathematics

MATH 220 Calculus 16-18
or MATH 221
MATH 223 Calculus II
MATH 241 Calculus III
MATH 225 Introductory Matrix Theory
or MATH Applied Linear Algebra
MATH 285 Intro Differential Equations

Physics

PHYS 211 University Physics: Mechanics 15-17
PHYS 212 University Physics: Elec & Mag
PHYS 213 Univ Physics: Thermal Physics
PHYS 214 Univ Physics: Quantum Physics
Select one of the following:
PHYS 325 Classical Mechanics I
or
TAM 210 Introduction to Statics & TAM 212 and Introductory Dynamics

Additional Technical Requirements

Information listed in this catalog is current as of 06/2020
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 101</td>
<td>Intro Computing: Engrg &amp; Sci</td>
</tr>
<tr>
<td></td>
<td>or CS 121: Intro to Computer Science</td>
</tr>
<tr>
<td>MSE 401</td>
<td>Thermodynamics of Materials</td>
</tr>
<tr>
<td></td>
<td>or PHYS 427: Thermal &amp; Statistical Physics</td>
</tr>
<tr>
<td></td>
<td>or CHEM 444: Physical Chemistry II</td>
</tr>
</tbody>
</table>

Six hours of other 300- or 400-level science, math, or engineering courses selected with adviser approval.

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.