GEOLGY: 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)
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)
- Major in Geology (http://catalog.illinois.edu/
  archivedacademiccatalogs/2018-2019/undergraduate/
  las/academic-units/geology/earth-environmental-science-
  concentration) (Sciences and Letters) (http://catalog.illinois.edu/
  archivedacademiccatalogs/2018-2019/undergraduate/
  las/academic-units/geology/geophysics-concentration), Earth
  and Environmental Sciences Concentration (http://catalog.illinois.edu/
  undergraduate/las/geology-bslas/earth-environmental-sciences)
- Major in Geology (http://catalog.illinois.edu/
  archivedacademiccatalogs/2018-2019/undergraduate/
  las/academic-units/geology/geophysics-concentration) (Specialized
  Curriculum) (http://catalog.illinois.edu/archivedacademiccatalogs/2018-2019/
  undergraduate/las/academic-units/geology/geophysics-concentration),
  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 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</td>
<td>General Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 102</td>
<td>General Chemistry I</td>
<td>8-9</td>
</tr>
<tr>
<td>CHEM 103</td>
<td>General Chemistry Lab I</td>
<td></td>
</tr>
<tr>
<td>CHEM 104</td>
<td>General Chemistry II</td>
<td></td>
</tr>
<tr>
<td>CHEM 105</td>
<td>General Chemistry Lab II</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 202</td>
<td>Accelerated Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHEM 203</td>
<td>Accelerated Chemistry Lab I</td>
<td></td>
</tr>
<tr>
<td>CHEM 204</td>
<td>Accelerated Chemistry II</td>
<td></td>
</tr>
<tr>
<td>CHEM 205</td>
<td>Accelerated Chemistry Lab II</td>
<td></td>
</tr>
</tbody>
</table>

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
- MATH 231 Calculus II
- MATH 241 Calculus III
- MATH 225 Introductory Matrix Theory
- MATH 285 Intro Differential Equations

Physics

- PHYS 211 University Physics: Mechanics
- PHYS 212 University Physics: Elec & Mag
- PHYS 213 Univ Physics: Thermal Physics

Information listed in this catalog is current as of 10/2019
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 214</td>
<td>Univ Physics: Quantum Physics</td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 325</td>
<td>Classical Mechanics I</td>
</tr>
</tbody>
</table>

or

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAM 210</td>
<td>Introduction to Statics</td>
</tr>
</tbody>
</table>

& TAM 212 & Introductory Dynamics

### Additional Technical Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 101</td>
<td>Intro Computing: Engrg &amp; Sci</td>
</tr>
</tbody>
</table>

or CS 121: Intro to Computer Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE 401</td>
<td>Thermodynamics of Materials</td>
</tr>
</tbody>
</table>

or PHYS 427: Thermal & Statistical Physics

or CHEM 444: Physical Chemistry II

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.