### Geology, B.S. (120 Units)

Valid for Catalog Years: 2018/2019 to 2019/2020

*Official planning guide approved by the College of Science & Math

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<thead>
<tr>
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<tr>
<td><strong>Milestones</strong></td>
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<tr>
<td>A1 (3 Units) Oral Communication *Must pass with a C or better</td>
<td>CHEM 1A</td>
<td>EES 12</td>
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<td><strong>General Education</strong></td>
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<tr>
<td>B2 (3-4 Units) Life Sciences</td>
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<tr>
<td><strong>Major</strong></td>
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<tr>
<td>GE Area B1 CHEM 1A (3 Units) Physical Sciences (Pre-Req: High school chemistry. May be taken concurrently: GE B4; CHEM 1AL) *Not open to students with credit in CHEM 1B</td>
<td>CHEM 1B (3 Units) (Pre-Req: CHEM 1A &amp; 1AL (both passed with a C or better); CHEM 1BL (may be taken concurrently])</td>
<td>EES 12 (3 Units) (Pre-Req: EES 1; CHEM 1A (may be taken concurrently))</td>
<td>EES 30 (3 Units) (Pre-Req: EES 1, 2 (may be taken concurrently) OR instructor permission)</td>
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<tr>
<td>GE Area B3 CHEM 1AL (2 Units) Lab (Pre-Req: CHEM 1A (may be taken concurrently))</td>
<td>CHEM 1BL (2 Units) (Pre-Req: CHEM 1B (may be taken concurrently))</td>
<td>EES 100 (2 Units) (Pre-Req: EES 12 (concurrent enrollment recommended))</td>
<td>EES 101 (4 Units) (Pre-Req: EES 100; EES 30 &amp; CHEM 1B (may be taken concurrently))</td>
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Department of Earth & Environmental Sciences:
559-278-3086, Science II 114
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**Major**

<table>
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<tr>
<th>GE Area B4</th>
<th>MATH 75 (4 Units)</th>
<th>Quantitative Reasoning</th>
<th>EES 2 (3 Units) [Pre-Req: EES 1]</th>
<th>EES 178 (3 Units) [Pre-Req: EES 1 or 4; MATH 75 recommended]</th>
<th>EES 102 (3 Units) [Pre-Req: EES 30 (may be taken concurrently); EES 100]</th>
<th>EES 105, 110, or 122 (3 Units) [See course catalog for prerequisite requirements]</th>
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**Additional Graduation Requirements**

<table>
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<tr>
<th>UDWS (0-4 Units) [Upper Division Writing Exam OR &quot;W&quot; Course (must pass with a C or better)]</th>
<th>Elective</th>
<th>MI (3 Units) [Multicultural/International]</th>
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**FOOTNOTES:**

Prerequisites/Corequisites: Other restrictions may apply. Please see your course catalog for detailed prerequisite/corequisite requirements.

Grade Requirements: CR/NC is not permitted in the Geology major with the exception of EES 3, 30, 160; CHEM 1A, 1AL, 1B, 1BL; MATH 75; PHYS 2A, 2B.

General Education: Units in this area may be used toward a double major or minor (see double major or departmental minor). Consult the appropriate department chair, program coordinator, or faculty adviser for further information. CHEM 1A, 1AL, 1B, 1BL; MATH 75; PHYS 2A, and 2B may satisfy GE, or a minor, as appropriate.

Electives (4 units): Units in this area may be used toward a double major or minor. Students must earn a minimum of 120 units total to graduate. The number of required elective units may vary, depending on the amount of units earned from major and GE courses.

EES 3: No more than 1 unit will be permitted.

Upper Division Writing Skills requirement (UDWS): All undergraduate students must demonstrate competency in writing skills by passing the Upper Division Writing Exam (UDWE) or by obtaining a C or better in an approved upper division writing course, identified by the letter "W."

*Students planning to pursue graduate study in geology are strongly encouraged to take MATH 76 or EES 177.

Substitutions: If substitutions/exceptions/waivers are made for any major courses that also meet GE and/or the Multicultural/International graduation requirement, the student is responsible for completing additional courses to satisfy the respective areas (GE and/or MI). This also includes the upperdivision writing requirement.
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## Milestones

**A1 (3 Units)**  
Oral Communication  
*Must pass with a C or better*

**A2 (3 Units)**  
Written Communication  
*Must pass with a C or better*

**A3 (3 Units)**  
Critical Thinking  
*Must pass with a C or better*

**CHEM 1A**

**EES 12**

**EES 30 & MATH 75**

**C1 (3-4 Units)**  
Arts

**C2 (3-4 Units)**  
Humanities

**D3 (3 Units)**  
Social Science

**IC (3-4 Units)**  
Arts & Humanities

**B2 (3-4 Units)**  
Life Sciences

**C1/C2 (3-4 Units)**  
Arts or Humanities

**D1 (3 Units)**  
American History

**E1 (3 Units)**  
Lifelong Understanding & Self Development

**D2 (3 Units)**  
American Government

**IB (3 Units)**  
Physical Universe & Its Life Forms

**MI (3 Units)**  
Multicultural/International

## General Education

**GE Area B1**

**CHEM 1A (3 Units)**  
Physical Sciences  
[Pre-Req: High school chemistry. May be taken concurrently: GE B4; CHEM 1AL]  
*Not open to students with credit in CHEM 1B*

**CHEM 1B (3 Units)**  
[Pre-Req: CHEM 1A & 1AL (both passed with a C or better); CHEM 1B (may be taken concurrently)]

**EES 12 (3 Units)**  
[Pre-Req: EES 1; CHEM 1A (may be taken concurrently)]

**EES 30 (3 Units)**  
[Pre-Req: EES 1, 2 (may be taken concurrently) OR instructor permission]

**EES 104 (2 Units)**  
[Pre-Req: EES 1 or 4; UDWS]

**EES 107 (3 Units)**  
[Pre-Req: EES 102, 104, 106]

**EES 114, 117, 118, or 124 (3 Units)**  
*See course catalog for prerequisite requirements*

**EES 199 (3 Units)**  
[Pre-Req: EES 102, 104, 106; Senior standing]

**GE Area B2**

**CHEM 1AL (2 Units)**  
Lab  
[Pre-Req: CHEM 1A (may be taken concurrently)]

**CHEM 1BL (2 Units)**  
[Pre-Req: CHEM 1B (may be taken concurrently)]

**EES 100 (2 Units)**  
[Pre-Req: EES 12 (concurrent enrollment recommended)]

**EES 101 (4 Units)**  
[Pre-Req: EES 100; EES 30 & CHEM 1B (may be taken concurrently)]

**EES 106 (4 Units)**  
[Pre-Req: EES 30, 101; MATH 75 (may be taken concurrently); PHYS 2A]

**UD Geology Elective (3 Units)**  
*Except EES 154, 155, and 168. No more than 1 unit of EES 160 may be used*

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<td>EES 1 (4 Units)</td>
<td>[Pre-Req: MATH 4R or second-year high school algebra recommended]</td>
<td>PHYS 2A (4 Units)</td>
<td>PHYS 2B (4 Units)</td>
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<tr>
<td>[Pre-Req: DS 71, MATH 75, MATH 70, or department permission]</td>
<td>[Pre-Req: PHYS 2A]</td>
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