Major Map: Geological Sciences – Bachelor of Science (B.S.)
Intensive Concentration in Marine Geology
College of Arts and Sciences
School of Earth, Ocean & Environment
Catalog Year: 2016-2017

This course plan is a recommended sequence for this major. Courses designated as critical (!) may have a deadline for completion and/or affect time to graduation. Please see the Program Notes section for details regarding “critical courses” for this particular Program of Study.

<table>
<thead>
<tr>
<th>Critical</th>
<th>Course Subject and Title</th>
<th>Credit Hours</th>
<th>Min. Grade</th>
<th>Major GPA</th>
<th>Code</th>
<th>Prerequisites</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Semester One (13-14 Credit Hours)</td>
<td>ENSG 101 Critical Reading and Composition</td>
<td>3</td>
<td>C</td>
<td></td>
<td>CC-CMW</td>
<td>MATH 122: MATH 111/1111; MATH 141: MATH 115 or Math placement test score</td>
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<tr>
<td>Semester Two (16-17 Credit Hours)</td>
<td>MATH 122 Calculus for Bus. Admin. &amp; Soc. Sciences</td>
<td>3-4</td>
<td>C</td>
<td></td>
<td>CC-ARP</td>
<td>MATH 122: MATH 111/1111; MATH 141: MATH 115 or Math placement test score</td>
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<tr>
<td>Semester Three (14 Credit Hours)</td>
<td>GEOL 101 Introduction to the Earth</td>
<td>4</td>
<td></td>
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<td>PR</td>
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<tr>
<td>Semester Four (14 Credit Hours)</td>
<td>GEOL 302 Rocks and Minerals (fall only)</td>
<td>4</td>
<td>C</td>
<td>MR</td>
<td>GEOL 101, 103, or 201 (CHEM 111 recommended)</td>
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<tr>
<td>Semester Five (14 Credit Hours)</td>
<td>PHYS 201 &amp; 201L – General Physics I</td>
<td>4</td>
<td>CC-SCI</td>
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<td>PHYS 201: MATH 115 or 122; PHYS 211: MATH 141</td>
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<tr>
<td>Semester Six (13 Credit Hours)</td>
<td>PHYS 202 &amp; 202L – General Physics II</td>
<td>4</td>
<td>PR</td>
<td></td>
<td>PHYS 202: PHYS 201; PHYS 212: MATH 115 or 122; CHEM 112: MATH 111 or 141 and MATH 111 or 115 or higher math</td>
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<tr>
<td>Semester Seven (16 Credit Hours)</td>
<td>PHYS 202 &amp; 202L – General Physics II</td>
<td>4</td>
<td>PR</td>
<td></td>
<td>PHYS 202: PHYS 201; PHYS 212: MATH 115 or 122; CHEM 112: MATH 111 or 141 and MATH 111 or 115 or higher math; BIOL 102: BIOL 101</td>
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*Approved Elective*
**Semester Three**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Type</th>
<th>Grade</th>
<th>MR or CC/PR</th>
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<tr>
<td>MATH 122</td>
<td>Calculus I</td>
<td>4</td>
<td>MR</td>
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<td>PHYS 111</td>
<td>University Physics I</td>
<td>3</td>
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<tr>
<td>CHEM 111</td>
<td>General Chemistry</td>
<td>3</td>
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<td>CHEM 111L</td>
<td>General Chemistry Lab</td>
<td>1</td>
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<td>ENGL 102</td>
<td>Literature First-Year Composition</td>
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<td>CR</td>
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<tr>
<td>SOC 111</td>
<td>Social Science</td>
<td>3</td>
<td>CR</td>
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</table>

**Graduation Requirements Summary**

<table>
<thead>
<tr>
<th>Minimum Total Hours</th>
<th>Major Requirements Hours</th>
<th>College &amp; Program Requirements Hours</th>
<th>Carolina Core Hours</th>
<th>Minimum Overall GPA</th>
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<tbody>
<tr>
<td>120</td>
<td>39</td>
<td>39-51</td>
<td>32-44</td>
<td>2.00</td>
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</table>

1. Regardless of individual course grades, students must maintain a minimum 2.00 cumulative GPA.
2. Some colleges require a minimum GPA for major courses. Courses indicated in this column are included in the major GPA for this program of study.
3. Students who place into MATH 111 or 115 will be required to complete it successfully before taking MATH 122 or 141. MATH 111/115 may be used as an approved elective. Students who start with MATH 111/115 should use the following sequence for the first three semesters:

- Semester One: ENG 101, ENGL 102, MATH 111 or 115, and UNIV 101 or Carolina Core Requirement (History). Foreign language placement or other Carolina Core Req., or other Carolina Core Req.
- Semester Two: GEOL 511 or 515, CHEM 111 & 111L, or Carolina Core Requirement (History). Carolina Core Requirement (History).
- Semester Three: GEOL 545 or 555, MATH 122 or 141, or other Carolina Core Req., or other Carolina Core Req.

4. The Carolina Core provides the common core of knowledge, skill and academic experience for all Carolina undergraduate students.
5. The College of Arts and Sciences requires one U.S. History and one non-U.S. History course, both of which must be chosen from the approved Carolina Core GHS courses. Whichever is not fulfilled through the Carolina Core GHS courses must be fulfilled through this college requirement.
6. Students in the College of Arts and Sciences are required to demonstrate proficiency in one foreign language equivalent to the 122 course through course credit or the corresponding foreign language placement score.
7. The cognate is intended to support the course work in the major. The cognate must consist of twelve hours of courses at the advanced level, outside of, but related to the major. A second major eliminates the minor/cognate requirement.
8. No courses of a remedial, developmental, skill-acquiring, or vocational nature may apply as credit toward degrees in the College of Arts and Sciences. The College of Arts and Sciences allows the use of the Pass-Fail option on elective courses. Further clarification on applicable courses can be obtained from the College of Arts and Sciences.
9. Intensive Geological Sciences with Marine Geology Concentration major electives (9 hours) –Limit 3 credits on approved research topics (GEOL 498/499)

**Choose from the following:**

- GEOL 511 (MSCI 571I) Adv. Paleontology (3)
- GEOL 545 (MSCI 543J) Geol. Oceanography (3)
- GEOL 582 (MSCI 582) Mar. Hydrodynamics (3)
- GEOL 515 (MSCI 515) Mar. Micropal. (4)
- GEOL 546 Marine Geophysics (3)
- GEOL 583 (MSCI 583) Geol. Geochem of Salt Marshes (3)
- GEOL 516 Sedimentology (4)
- GEOL 553 (MSCI 553J) Marine Sediments (3)
- GEOL 498 Undergraduate Research (3)
- GEOL 521 (MSCI 521J) Intro. to Geochem. (3)
- GEOL 557 (MSCI 557J) Coastal Processes (3)
- GEOL 499 Undergraduate Research (3)
- GEOL 531 Plac Tectonics (3)
- GEOL 581 (MSCI 581) Estuarine Oceanogr. (3)

10. GEOL 500 is a summer course, which takes place in Colorado. Students must indicate to the SEOE undergraduate office their plans to attend field camp in January, which is prior to registering GEOL 500.

**Program Notes:**
- Courses identified as “critical” must be completed in the student’s first 60 semester hours of work in order for these courses to be credited toward graduation.
- A Degree with Distinction is available to students majoring in Geological Sciences who wish to participate in significant research activities in their major field under the supervision of a faculty mentor. Requirements: 1) a minimum GPA of 3.5 in the major and 3.3 overall; 2) written sponsorship agreement from the faculty mentor on file in the SEOE Undergraduate Student Services office; 3) a public presentation of the Senior Thesis research accomplished by a written document approved by the faculty mentor and a second reader that follows the guidelines of the Department of Geological Sciences; and 4) three courses in addition to the general major requirements, including: GEOL 498 or GEOL 499, GEOL 699, and a minimum of one GEOL 500-level course appropriate to the research.
- The last 30 credit hours toward your degree must be earned in residence at the University of South Carolina-Columbia. However, please note that GEOL 500, while considered “in residence,” occurs in Colorado.

**University Requirements:** Bachelor’s degree-seeking students must meet Carolina Core (general education) requirements. For more information regarding these requirements, please visit the Carolina Core page on the University website.

**Codes:**

- CC Carolina Core
- CC-AIU Carolina Core - Aesthetic and Interpretive Understanding
- CC-ARP Carolina Core - Analytical Reasoning and Problem Solving
- CC-CMS Carolina Core - Effective, Engaged, and Persuasive Communication: Spoken Component
- CC-CMW Effective, Engaged, and Persuasive Communication: Written Component
- CC-CMS Carolina Core - Scientific Literacy
- CC-GFL Carolina Core - Global Citizenship and Multicultural Understanding: Foreign Language
- CC-GHS Carolina Core - Historical Thinking
- CC-GSS Carolina Core - Social Sciences

**Disclaimer:** Major maps are only a suggested or recommended sequence of courses required in a program of study. Please contact your academic advisor for assistance in the application of specific coursework to a program of study and course selection and planning for upcoming semesters.