



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.

| Critical | Course Subject and Title | Credit Hours | Min. Grade ¹ | Major GPA ² | Code | Prerequisites | Notes |
|--|--|--------------|-------------------------|------------------------|------------------|---|-------|
| Semester One (13-14 Credit Hours) | | | | | | | |
| ! | ENGL 101 Critical Reading and Composition | 3 | C | | CC-CMW | | |
| | MATH 122 Calculus for Bus. Admin. & Soc. Sciences or MATH 141 Calculus I ³ | 3-4 | C | | CC-ARP | MATH 111/111I/115 (<i>MATH 122</i>); MATH 115 (<i>MATH 141</i>); or Math placement test score | |
| | GEOL 101 Introduction to the Earth or GEOL 103 Environment of the Earth or GEOL 201 Observing the Earth (<i>fall only</i>) | 4 | | | PR | | |
| | UNIV 101 The Student in the University or Carolina Core Requirement ⁴ | 3 | | | PR/CC | | |
| Semester Two (16-17 Credit Hours) | | | | | | | |
| ! | ENGL 102 Rhetoric and Composition | 3 | C | | CC-CMW CC-INF | C or better in ENGL 101 | |
| | MATH 170 Finite Mathematics or MATH 142 Calculus II | 3-4 | C | | CC-ARP | MATH 111/111I or 112 or Math placement test score (<i>MATH 170</i>); MATH 141 (<i>MATH 142</i>) | |
| | CHEM 111 & 111L – General Chemistry I | 4 | | | CC-SCI | MATH 115 or Math placement test score | |
| | History ⁵ | 3 | | | CR | | |
| | Foreign language ⁶ or other Carolina Core Requirement ⁴ | 3 | | | CC-GFL | | |
| Semester Three (15 Credit Hours) | | | | | | | |
| | GEOL 302 Rocks and Minerals (<i>fall only</i>) | 4 | C | | MR | GEOL 101, 103, or 201 (<i>CHEM 111 recommended</i>) | |
| | GEOL 305 Earth Systems through Time (<i>fall only</i>) | 4 | C | | MR | | |
| | PHYS 201 & 201L – General Physics I or PHYS 211 & 211L – Essentials of Physics I | 4 | | | CC-SCI | C or better in MATH 111/111i/112/ 115/116/122/141 or higher (<i>PHYS 201</i>); MATH 141 (<i>PHYS 211</i>) | |
| | Foreign language ⁶ or other Carolina Core Requirement ⁴ | 3 | | | CC-GFL | | |
| Semester Four (14 Credit Hours) | | | | | | | |
| | GEOL 315 Surface & Near Surface Proc. (<i>spring only</i>) or GEOL 335 Processes of Global Envr. Change (<i>cross- listed: MSCI 335</i>) | 4 | C | | MR | PHYS 201 or 211 (<i>GEOL 315</i>) | |
| | PHYS 202 & 202L – General Physics II or PHYS 212 & 212L – Essentials of Physics II or CHEM 112 & 112L – General Chemistry II or BIOL 101 & 101L – Biological Principles I | 4 | | | PR | See Bulletin listing. | |
| | Cognate Course ⁷ | 3 | | | PR | | |
| | Foreign language ⁶ or Carolina Core Requirement ⁴ | 3 | | | CR/CC | | |
| Semester Five (15 Credit Hours) | | | | | | | |
| | GEOL 355 Struct. Geol. & Tectonics (<i>fall only</i>) | 4 | C | | MR | GEOL 302 & PHYS 201 or 211 | |
| | GEOL 325 Stratigraphy & Sed. Basins (<i>fall only</i>) | 4 | C | | MR | GEOL 302 | |
| | PHYS 202 & 202L – General Physics II or PHYS 212 & 212L – Essentials of Physics II or CHEM 112 & 112L – General Chemistry II or BIOL 102 & 102L – Biological Principles I | 4 | | | PR | See Bulletin listing. | |
| | Carolina Core Requirement ⁴ | 3 | | | CC | | |
| Semester Six (16 Credit Hours) | | | | | | | |
| | GEOL 345 Igneous & Metamorphic Proc. (<i>spring only</i>) | 4 | C | | MR | GEOL 302 & MATH 122 or 141 | |
| | Cognate Course ⁷ | 3 | | | PR | | |
| | STAT 201 Elementary Statistics or STAT 509 Statistics for Engineers or STAT 515 Statistical Methods I | 3 | | | CR | MATH 111, 115 or STAT 110 (<i>STAT 201</i>); MATH 142 (<i>STAT 509</i>); MATH 141 or 115 & a stat. class (<i>STAT 515</i>) | |
| | Humanities or Fine Arts | 3 | | | CR | | |
| | Carolina Core Requirement ⁴ or Approved Elective ⁸ | 3 | | | CC/PR | | |
| Semester Seven (12-15 Credit Hours) | | | | | | | |
| | GEOL Major Elective ⁹ | 3 | C | | MR | See Bulletin listing. | |
| | Cognate Course ⁷ | 3 | | | PR | | |
| | Cognate Course ⁷ | 3 | | | PR | | |
| | CSC 102 General Applications Programming | 3 | | | CR | | |
| | Carolina Core Requirement ⁴ or Approved Elective ⁸ (<i>only if needed to meet CC or hours to graduate</i>) | 0-3 | | | CC/PR | | |

| Semester Eight (12 Credit Hours) | | | | | | | |
|----------------------------------|---|---|---|--|--------------|-----------------------|--|
| | GEOL Major Elective ⁹ | 3 | C | | MR | See Bulletin listing. | |
| | GEOL Major Elective ⁹ | 3 | C | | MR | See Bulletin listing. | |
| | Social Science | 3 | | | CR | | |
| | Carolina Core Requirement ⁴ | 3 | | | CC | | |
| Summer (6 Credit Hours) | | | | | | | |
| | GEOL 500 Field Geology ¹⁰ (<i>summer only</i>) | 6 | C | | MR CC-INT | GEOL 325 & 355 | |

Graduation Requirements Summary

| Minimum Total Hours | Minimum Major Requirements Hours | College & Program Requirements Hours | Carolina Core Hours | Minimum Institutional GPA |
|---------------------|----------------------------------|--------------------------------------|---------------------|---------------------------|
| 120 | 39 | 39-51 | 32-44 | 2.000 |

- Regardless of individual course grades, students must maintain a minimum 2.000 cumulative GPA.
- 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.
- 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 | Semester Two | Semester Three |
|--|---|---|
| ENGL 101 | ENGL 102 | GEOL 305 |
| GEOL 101, 103 <i>or</i> 201 | MATH 122 <i>or</i> 141 | GEOL 302 |
| MATH 111 <i>or</i> 115 | CHEM 111 & 111L | MATH 170 <i>or</i> 142 |
| UNIV 101 <i>or</i> Carolina Core Requirement | History | PHYS 201 & 201L <i>or</i> 211 & 211L |
| | Foreign Language <i>or</i> other Carolina Core Req. | Foreign language <i>or</i> Carolina Core Req. |

- The [Carolina Core](#) provides the common core of knowledge, skill and academic experience for all Carolina undergraduate students.
- 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 requirement must be fulfilled through this college requirement.
- 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.
- 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 minor or second major eliminates the cognate requirement.
- 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 inapplicable courses can be obtained from the College of Arts and Sciences.
- 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 (<i>MSCI 511</i>) Adv. Paleontology (3) | GEOL 531 Plate Tectonics (3) | GEOL 581 (<i>MSCI 581</i>) Estuarine Oceanogr. (3) |
| GEOL 515 (<i>MSCI 515</i>) Mar. Micropaleontol. (4) | GEOL 545 (<i>MSCI 545</i>) Geol. Oceanography (3) | GEOL 582 (<i>MSCI 582</i>) Mar. Hydrodynamics (3) |
| GEOL 516 Sedimentology (4) | GEOL 546 Marine Geophysics (3) | GEOL 583 (<i>MSCI 583</i>) Geol & Geochem of Salt Marshes (3) |
| GEOL 518 Surface to Subsurface Stratigraphy (3) | GEOL 553 (<i>MSCI 553</i>) Marine Sediments (3) | GEOL 498 Undergraduate Research (3) |
| GEOL 521 (<i>MSCI 521</i>) Intro. to Geochem. (3) | GEOL 557 (<i>MSCI 557</i>) Coastal Processes (3) | GEOL 499 Undergraduate Research (3) |

- 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 for 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 include: 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 accompanied by a written document approved by the faculty mentor and a second reader that follows the guidelines of the degree program; and 4) three courses in addition to the 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-GFL | Carolina Core-Global Citizenship and Multicultural Understanding: Foreign Language |
| CC-GHS | Carolina Core – Historical Thinking |
| CC-GSS | Carolina Core – Social Sciences |
| CC-INF | Carolina Core – Information Literacy |
| CC-INT | Carolina Core – Integrative Course |
| CC-SCI | Carolina Core – Scientific Literacy |
| CC-VSR | Carolina Core – Values, Ethics, and Social Responsibility |
| CR | College Requirement |
| MR | Major Requirement |
| PR | Program Requirement |

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.