



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 <i>or</i> MATH 141 Calculus I ³	3-4	C		CC-ARP	MATH 122: MATH 111/111I; MATH 141: MATH 115 <i>or</i> Math placement test score	
	GEOL 101 Introduction to the Earth <i>or</i> GEOL 103 Environment of the Earth <i>or</i> GEOL 201 Observing the Earth (<i>fall only</i>)	4			PR		
	UNIV 101 The Student in the University <i>or</i> Carolina Core Requirement ⁴	3			PR/CC		
Semester Two (16-17 Credit Hours)							
!	ENGL 102 Rhetoric and Composition	3	C		CC-CMW CC-INF		
	MATH 170 Finite Mathematics <i>or</i> MATH 142 Calculus II	3-4	C		CC-ARP	MATH 170: MATH 111/111I <i>or</i> 112 <i>or</i> Math placement test score; MATH 142: MATH 141	
	CHEM 111 & 111L – General Chemistry I	4			CC-SCI	MATH 115 <i>or</i> Math placement test score	
	History ⁵	3			CR		
	Foreign language ⁶ <i>or</i> other Carolina Core Requirement ⁴	3			CC-GFL		
Semester Three (14 Credit Hours)							
	GEOL 302 Rocks and Minerals (<i>fall only</i>)	4	C		MR	GEOL 101, 103, <i>or</i> 201 (<i>CHEM 111 recommended</i>)	
	PHYS 201 & 201L – General Physics I <i>or</i> PHYS 211 & 211L – Essentials of Physics I	4			CC-SCI	PHYS 201: MATH 115 <i>or</i> 122; PHYS 211: MATH 141	
	Carolina Core Requirement ⁴	3			CC		
	Foreign language ⁶ <i>or</i> other Carolina Core Requirement ⁴	3			CC-GFL		
Semester Four (14 Credit Hours)							
	GEOL 305 Earth Systems through Time (<i>fall only</i>) <i>or</i> GEOL 335 Processes of Global Envr. Change (<i>cross-listed: MSC1 335</i>)	4	C		MR		
	PHYS 202 & 202L – General Physics II <i>or</i> PHYS 212 & 212L – Essentials of Physics II <i>or</i> CHEM 112 & 112L – General Chemistry II <i>or</i> BIOL 101 & 101L – Biological Principles I	4			PR	PHYS 202: PHYS 201 PHYS 212: PHYS 211 & MATH 142 CHEM 112: CHEM 111 <i>or</i> 141 <i>and</i> MATH 111 <i>or</i> 115 <i>or</i> higher math	
	Cognate Course ⁷	3			PR		
	Foreign language ⁶ <i>or</i> Carolina Core Requirement ⁴	3			CR/CC		
Semester Five (14 Credit Hours)							
	GEOL 325 Stratigraphy & Sed. Basins (<i>fall only</i>)	4	C		MR	GEOL 302	
	PHYS 202 & 202L – General Physics II <i>or</i> PHYS 212 & 212L – Essentials of Physics II <i>or</i> CHEM 112 & 112L – General Chemistry II <i>or</i> BIOL 102 & 102L – Biological Principles I	4			PR	PHYS 202: PHYS 201; PHYS 212: PHYS 211 & MATH 142; CHEM 112: CHEM 111 <i>or</i> 141 <i>and</i> MATH 111 <i>or</i> 115 <i>or</i> higher math; BIOL 102: BIOL 101	
	Cognate Course ⁷	3			PR		
	Carolina Core Requirement ⁴	3			CC		
Semester Six (13 Credit Hours)							
	GEOL 315 Surface & Near Surface Proc. (<i>spring only</i>)	4	C		MR	PHYS 201 <i>or</i> 211	
	Cognate Course ⁷	3			PR		
	STAT 201 Elementary Statistics <i>or</i> STAT 509 Statistics for Engineers <i>or</i> STAT 515 Statistical Methods I	3			CR	STAT 201: MATH 111, 115 <i>or</i> STAT 110; STAT 509: MATH 142; STAT 515: MATH 141 <i>or</i> 115 & a stat. class	
	Humanities <i>or</i> Fine Arts	3			CR		
Semester Seven (16 Credit Hours)							
	GEOL 355 Struct. Geol. & Tectonics (<i>fall only</i>)	4	C		MR	GEOL 302 & PHYS 201 <i>or</i> 211	
	GEOL Major Elective ⁹	3	C		MR	See Bulletin description.	
	Cognate Course ⁷	3			PR		
	CSCE 102 General Applications Programming	3			CR		
	Carolina Core Requirement ⁴ <i>or</i> Approved Elective ⁸	3			CC/PR		

Semester Eight (13-16 Credit Hours)						
GEOL 345 Igneous & Metamorphic Proc. (<i>spring only</i>)	4	C		MR	GEOL 302 & MATH 122 <i>or</i> 141	
GEOL Major Elective ⁹	3	C		MR	See Bulletin description.	
GEOL Major Elective ⁹	3	C		MR	See Bulletin description.	
Social Science	3			CR		
Carolina Core Requirement ⁴ <i>or</i> Approved Elective ⁸ (<i>only if needed to meet CC or hours to graduate</i>)	0-3			CC/PR		
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	Major Requirements Hours	College & Program Requirements Hours	Carolina Core Hours	Minimum Overall 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 302
GEOL 101, 103 <i>or</i> 201	MATH 122 <i>or</i> 141	MATH 170 <i>or</i> 142
MATH 111 <i>or</i> 115	CHEM 111 & 111L	PHYS 201 & 201L <i>or</i> 211 & 211L
UNIV 101 <i>or</i> Carolina Core Requirement	History	Carolina Core Requirement
Foreign language <i>or</i> other Carolina Core Req.	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 second major eliminates the minor/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 545 (<i>MSCI 545</i>) Geol. Oceanography (3)	GEOL 582 (<i>MSCI 582</i>) Mar. Hydrodynamics (3)
GEOL 515 (<i>MSCI 515</i>) Mar. Micropaleontol. (4)	GEOL 546 Marine Geophysics (3)	GEOL 583 (<i>MSCI 583</i>) Geol & Geochem of Salt Marshes (3)
GEOL 516 Sedimentology (4)	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 531 Plate Tectonics (3)	GEOL 581 (<i>MSCI 581</i>) Estuarine Oceanogr. (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 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 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-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.