## Major Map: Geological Sciences - Bachelor of Science (B.S.)



Environmental Geosciences Concentration College of Arts and Sciences School of Earth, Ocean & Environment Catalog Year: 2017-2018

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		Credit	Min.	Major GPA <sup>2</sup>		Prerequisites	Notes
Semes	ter One (13-14 Credit Hours)	2	C		CC CMW		
!	ENGL 101 Critical Reading and Composition MATH 122 Calculus for Bus. Admin. & Soc. Sciences	3-4	C		CC-CMW CC-ARP	MATH 111/111I/115 <i>(MATH 122)</i> ;	
	or MATH 141 Calculus I <sup>3</sup>	3-4	C		CC-ARP	MATH 111/1111/113 (MATH 122); MATH 115 (MATH 141); or Math	
	07 WEXTIT 141 Calculus 1°					placement test score	
	GEOL 101 Introduction to the Earth	4			PR	pracement test score	
	or GEOL 103 Environment of the Earth	7			110		
	or GEOL 201 Observing the Earth (fall only)						
	UNIV 101 The Student in the University	3			PR/CC		
	or Carolina Core Requirement <sup>4</sup>	3			110,00		
Semes	ter Two (16-17 Credit Hours)						
1	ENGL 102 Rhetoric and Composition	3	С		CC-CMW	C or better in ENGL 101	
•	Envolutione and composition	3			CC-INF	C of better in Envoir 101	
	MATH 170 Finite Mathematics	3-4	С		CC-ARP	MATH 111/1111 or 112 or Math	
	or MATH 142 Calculus II				CCIIII	placement test score (MATH 170);	
	07 171111 1 12 Galedius 11					MATH 141 (MATH 142)	
	CHEM 111 & 111L – General Chemistry I	4			CC-SCI	MATH 115 or Math placement test score	
	History <sup>5</sup>	3			CR	William placement test score	
	Foreign language <sup>6</sup> or other Carolina Core Requirement <sup>4</sup>		-	<del>                                     </del>	CC-GFL		
Semes	ter Three (14 Credit Hours)	3			CC-OIL		
ocines	GEOL 302 Rocks and Minerals (fall only)	4	С		MR	GEOL 101, 103, or 201 (CHEM 111	
	OHOL 502 ROCKS and Minicials fan omyj	'			IVIIC	recommended)	
	PHYS 201 & 201L – General Physics I	4			CC-SCI	MATH 115 or 122 (PHYS 201);	
	or PHYS 211 & 211L – Essentials of Physics I				CC-5C1	MATH 141 (PHYS 211)	
	Carolina Core Requirement <sup>4</sup>	3			CC	WEATTI 141 (11113 211)	
	Foreign language <sup>6</sup> or other Carolina Core Requirement <sup>4</sup>				CC-GFL		
Samas	ter Four (14 Credit Hours)	3			CC-OPL		
Scilics	GEOL 335 Processes of Global Envr. Change (cross-	4	С		MR		
	disted: MSCI 335)	4			IVIIX		
	PHYS 202 & 202L – General Physics II	4			PR	See <u>Bulletin</u> listing.	
	<i>or</i> PHYS 212 & 212L – General Physics II	4			PK	See <u>Bulletin</u> fisting.	
	or CHEM 112 & 112L – Essentiais of Physics II						
	or BIOL 101 & 101L – Biological Principles I						
	Cognate Course <sup>7</sup>	3			PR		
	Humanities or Fine Arts	3			CR		
	Foreign language <sup>6</sup> or Carolina Core Requirement <sup>4</sup>	3			CR/CC		
Company	ter Five (14 Credit Hours)	3			CK/CC		
Semes	GEOL 325 Stratigraphy & Sed. Basins (fall only)	4	С		MR	GEOL 302	
	PHYS 202 & 202L – General Physics II	4	C		PR	See Bulletin listing.	
		4			PK	See <u>Bulletin</u> listing.	
	<i>or</i> PHYS 212 & 212L – Essentials of Physics II <i>or</i> CHEM 112 & 112L – General Chemistry II						
	or BIOL 102 & 102L – Biological Principles I						
	Cognate Course <sup>7</sup>	3			PR		
	Carolina Core Requirement <sup>4</sup>	3			CC		
Samaa	ter Six (13 Credit Hours)	3			CC		
Semes	GEOL 315 Surface & Near Surface Proc. (spring only)	4	С		MR	PHYS 201 or 211	
	Cognate Course <sup>7</sup>	3		1	PR	F1113 201 0F 211	
	STAT 201 Elementary Statistics	3	-	-		MATH 111 115 CTAT 110 /CT /T	
	or STAT 509 Statistics for Engineers	3			CR	MATH 111, 115 <i>or</i> STAT 110 <i>(STAT 201)</i> ; MATH 142 <i>(STAT 509)</i> ; MATH	
	or STAT 509 Statistics for Engineers or STAT 515 Statistical Methods I					141 or 115 & a stat. class (STAT 515)	
	Carolina Core Requirement <sup>4</sup> or Approved Elective <sup>8</sup>	3	1	1	CC/PR	171 0/ 113 ex a stat. Class (31/41 )13)	
Samoo	ter Seven (13-14 Credit Hours)	J			CC/PK		
Semes	GEOL 355 Struct. Geol. & Tectonics (fall only)	1	С		MR	GEOL 302 & PHYS 201 or 211	
	GEOL 355 Struct. Geol. & Tectonics (fall only) GEOL 305 Earth Systems through Time (fall only)	3-4	C	-	MR	GEOL 302 & PH \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
	or GEOL 303 Earth Systems through Time (jail only)	3-4			IVIK	MATH 141 & PHYS 201 (GEOL 371);	
	or GEOL 5/1 A view of the River					548)	
	Cognate Course <sup>7</sup>	3	1	1	PR	)+0)	
	Carolina Core Requirement <sup>4</sup> or Approved Elective <sup>8</sup>	3	-	-	CC/PR		
l .	Caromia Core requirement or Approved Electives	)	1	1	CC/PK	İ	

Semester Eight (13-15 Credit Hours)						
CSCE 102 General Applications Programming	3			CR		
Social Science	3			CR		
Approved Elective <sup>8</sup>	3			PR		
Approved Elective <sup>8</sup>	3			PR		
Approved Elective <sup>8</sup> (varies depending upon number of hours	1-3			PR		
needed to meet hours to graduate)						
Summer (6 Credit Hours)						
GEOL 500 Field Geology <sup>9</sup> (summer only)	6	С		MR	GEOL 325 & 355	
			CO	C-INT		

**Graduation Requirements Summary** 

Minimum Total Hours	Major Requirements Hours	College & Program Requirements Hours	Carolina Core Hours	Minimum Overall GPA
120	29	47-59	32-44	2.000

- 1. Regardless of individual course grades, students must maintain a minimum 2.000 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	Semester Two	Semester Three
ENGL 101	ENGL 102	GEOL 302
GEOL 101, 103 or 201	MATH 122 or 141	MATH 170 or 142
MATH 111 or 115	CHEM 111 & 111L	PHYS 201 & 201L or 211 & 211L
UNIV 101 or Carolina Core Requirement	History	Carolina Core Requirement
Foreign language or other Carolina Core Req.	Foreign Language or other Carolina Core Req.	Foreign language or 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 requirement 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 inapplicable courses can be obtained from the College of Arts and Sciences.
- 9. 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 <u>Carolina Core</u> page on the University website.

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Codes:					
CC	Carolina Core	CC-INF	Carolina Core – Information Literacy		
CC-AIU	Carolina Core-Aesthetic and Interpretive Understanding	CC-INT	Carolina Core – Integrative Course		
CC-ARP	Carolina Core-Analytical Reasoning and Problem-Solving	CC-SCI	Carolina Core – Scientific Literacy		
CC-CMS	Carolina Core-Effective, Engaged, and Persuasive Communication: Spoken Component	CC-VSR	Carolina Core - Values, Ethics, and Social Responsibility		
CC-CMW	Effective, Engaged, and Persuasive Communication: Written Component	CR	College Requirement		
CC-GFL	Carolina Core-Global Citizenship and Multicultural Understanding: Foreign Language	MR	Major Requirement		
CC-GHS	Carolina Core – Historical Thinking	PR	Program Requirement		
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.