MAJOR IN NATURAL SCIENCES, GEOLOGY EDUCATION CONCENTRATION

All Geology Education majors must maintain a 2.75 GPA and receive a C or better in all content and education courses for licensure. All course work must be completed prior to Student Teaching (AUCC 4A/4B/4C requirement). Admission into the teacher licensure program is required for phase II education courses and above.

Major Completion Map

Distinctive Requirements for Degree Program:

Freshman

Semester 1		Critical	Recommended	AUCC	Credits
CO 150	College Composition (GT-CO2)			1A	3
CHEM 111	General Chemistry I (GT-SC2)		X	3A	4
CHEM 112	General Chemistry Lab I (GT-SC1)		X	3A	1
Select one group from the following:					4
Group A:					
GEOL 120	Exploring Earth - Physical Geology (GT-SC2)	X		3A	
GEOL 121	Introductory Geology Laboratory (GT-SC1)	X		3A	
Group B:					
GEOL 150	Physical Geology for Scientists and Engineers	X		3A	
Select one course from the following:					4
MATH 155	Calculus for Biological Scientists I (GT-MA1)		X	1B	
MATH 160	Calculus for Physical Scientists I (GT-MA1)		X	1B	
GEOL 120/GEOL 121 or GEOL 150 must be completed by the end of Semester 1.		X			
MATH 117, MATH 118 may be necessary for some students to fulfill pre-calculus requirements.		X			
	Total Credits				**16**

Semester 2		Critical	Recommended	AUCC	Credits
CHEM 113	General Chemistry II		X		3
CHEM 114	General Chemistry Lab II		X		1
GEOL 154	Historical and Analytical Geology	X			4
Select one course from the following:					3
AA 100	Introduction to Astronomy (GT-SC2)			3A	
NR 150	Oceanography (GT-SC2)			3A	
Select one course from the following:					4
MATH 255	Calculus for Biological Scientists II		X	1B	
MATH 161	Calculus for Physical Scientists II (GT-MA1)		X	1B	
GEOL 154 must be completed by the end of Semester 2.		X			
MATH 124, MATH 125, MATH 126 may be necessary for some students to fulfill pre-calculus requirements.		X			
	Total Credits				**15**

Sophomore

Semester 3		Critical	Recommended	AUCC	Credits
GEOL 232	Mineralogy	X			3
STAT 301	Introduction to Applied Statistical Methods		X		3
Select one course from the following:					5
PH 121	General Physics I (GT-SC1)		X	3A	
PH 141	Physics for Scientists and Engineers I (GT-SC1)		X	3A	
Historical Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)				3D	3
Science Elective					3

CHEM 111, CHEM 112, GEOL 232 and MATH 155 or MATH 160 must be completed by the end of Semester 3.		X			
	Total Credits				**17**
Semester 4		**Critical**	**Recommended**	**AUCC**	**Credits**
EDUC 275	Schooling in the United States (GT-SS3)	X		3C	3
EDUC 340	Literacy and the Learner	X			3
Select one course from the following:					3-4
GEOL 250	The Solid Earth				
GEOL 342	Paleontology				
GEOL 344	Stratigraphy and Sedimentology				
GEOL 364	Igneous and Metamorphic Petrology				
GEOL 372	Structural Geology				
GEOL 424					
GEOL 446	Environmental Geology				
GEOL 452	Hydrogeology				
Select one course from the collowing:					5
PH 122	General Physics II (GT-SC1)		X	3A	
PH 142	Physics for Scientists and Engineers II (GT-SC1)		X	3A	
CO 150 and MATH 255 or MATH 161 must be completed by the end of Semester 4.		X			
	Total Credits				**14-15**
Junior					
Semester 5		**Critical**	**Recommended**	**AUCC**	**Credits**
ATS 350	Introduction to Weather and Climate				2
EDUC 350	Instruction I-Individualization/Management	X			3
EDUC 386	Practicum-Instruction I	X			1
EDUC 461A	Secondary Science and Technology Education I	X			3
Select one course from the following:			X		3-4
GEOL 250	The Solid Earth		X		
GEOL 342	Paleontology		X		
GEOL 344	Stratigraphy and Sedimentology		X		
GEOL 364	Igneous and Metamorphic Petrology		X		
GEOL 372	Structural Geology		X		
GEOL 424					
GEOL 446	Environmental Geology		X		
GEOL 452	Hydrogeology		X		
Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion)				1C	3
	Total Credits				**15-16**
Semester 6		**Critical**	**Recommended**	**AUCC**	**Credits**
EDUC 461B	Secondary Science and Technology Education II	X			3
GEOL 454	Geomorphology	X			4
LIFE 102	Attributes of Living Systems (GT-SC1)	X		3A	4
Advanced Writing (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#advanced-writing)				2	3
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)				3B	3
GEOL 454, LIFE 102 and PH121 or PH 142 must be completed by the end of Semester 6.		X			
	Total Credits				**17**
Senior					
Semester 7		**Critical**	**Recommended**	**AUCC**	**Credits**
EDUC 450	Instruction II-Standards and Assessment	X			4

EDUC 486E	Practicum: Instruction II		X		1
LIFE 103	Biology of Organisms-Animals and Plants (GT-SC1)			3A	4
Select one course from the following:					3-4
GEOL 250	The Solid Earth				
GEOL 342	Paleontology				
GEOL 344	Stratigraphy and Sedimentology				
GEOL 364	Igneous and Metamorphic Petrology				
GEOL 372	Structural Geology				
GEOL 424					
GEOL 446	Environmental Geology				
GEOL 452	Hydrogeology				
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)				3B	3
	Total Credits				**15-16**
Semester 8		**Critical**	**Recommended**	**AUCC**	**Credits**
EDUC 485B	Student Teaching: Secondary		X	4A,4B,4C	11
EDUC 493A	Seminar: Professional Relations		X	4C	1
The benchmark courses for the 8th semester are the remaining courses in the entire program of study.			X		
	Total Credits				**12**
	Program Total Credits:				**121-124**