

# ENVIRONMENTAL GEOSCIENCE, BACHELOR OF SCIENCE (BS) - CONCENTRATION IN ENVIRONMENTAL SCIENCE

## Curriculum Guide

### GPA Requirement

Major GPA: 2.0 or higher

Overall GPA: 2.0 or higher

### Summary\*

Code	Title	Hours
	Rock Studies 2 Requirements	45
	Other Basic Requirements	0-3
	Major Requirements	53
	Natural Science and Math College-Wide Requirements	9
	Electives	13

\* All undergraduate degree programs require a minimum of 120 credits.

Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

### Rock Studies 2 Requirements

Code	Title	Hours
<b>The Rock</b>		
SUBJ 139	Foundations of Academic Discovery <sup>1</sup>	3
ENGL 102	Critical Writing	3
ENGL 104	Critical Reading	3
MATH 225	Calculus I	4
Select one of the following: 3		
COMM 200	Civil Discourse: Theory & Practice	
PHIL 110	Ethics and Civil Discourse	
POLS 235	Civil Discourse and Democracy	
Subtotal		16
<b>Integrated Inquiry</b>		
<i>Creative and Aesthetic Inquiry</i>		
Select 3 Credits ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/</a> ) 3		
<i>Humanities Inquiry</i>		
Select 3 Credits ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/</a> ) 3		
<i>Social Science Inquiry</i>		
Select 3 Credits ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/</a> ) 3		
<i>Natural Sciences Inquiry</i>		
CHEM 107 & CHEM 111	General Chemistry I and General Chemistry I Lab <sup>2</sup>	4
<i>Physical Science Inquiry</i>		
PHYS 216	University Physics 1 with Lab <sup>2</sup>	4

Subtotal	17
<b>Thematic Thread</b>	
Select 12 Credits ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/</a> ) <sup>3</sup>	12
<b>Total Hours</b>	<b>45</b>

<sup>1</sup> Course offered in multiple subjects; cannot take course in first major subject.

<sup>2</sup> Course counts for 50% of Major requirements and Major GPA

<sup>3</sup> One course from each category; six credits must be 300-level or above; no more than 4 credits from one subject area; specific courses required in first major, regardless of prefix of course, cannot be used to satisfy thread requirements; any course with same prefix as first major cannot be used to satisfy thread requirements, even if it is not a course in the first major.

### Basic Math Requirement

Check with your adviser or a current degree audit report to see if you have been exempted from this course. The credit earned in this course will not be counted toward the 120 credit hour minimum needed to earn a degree.

Code	Title	Hours
Complete one of the following: 0-3		
Meet required minimum SAT or ACT math score OR		
ESAP 110	Beginning Algebra	

**Total Hours 0-3**

### DIVERSITY, EQUITY, AND INCLUSION REQUIREMENT

Students must take and pass a course with the Diversity, Equity, and Inclusion (DEI) designation prior to graduation. Students can meet this requirement by taking any DEI - designated course in any program at any time during their undergraduate career.

### Major Requirements

- 30 major credits must be taken at SRU or PASSHE
- 30 major credits must be taken at the 300 level or above

Code	Title	Hours
<b>Environmental Geoscience Core</b>		
EGEO 131	Oceanography	3
GES 115	Introduction to Geospatial Technologies	3
GES 220	General Methods of Fieldwork	3
GES 325	Introduction to Geographic Information Science	3
Capstone 3		
ENVS 440	Science, Technology and the Environment	
EGEO 450	Internship	
EGEO 399	Field Camp	
Subtotal		15
<b>Environmental Science Core Requirements</b>		
BIOL 114	Biology II: Foundations of Molecules, Genes and Cells with Lab	4
BIOL 401	Ecology with Lab	3
EGEO 121	Meteorology/Lab	4
EGEO 201	Earth Materials and Processes/Lab	4
EGEO 202	Earth History/Lab	4

EGEO 360	Introduction to Hydrology/Lab	3
EGEO 451	Geochemistry/Lab	4
GES 324	Environmental Law and Policy	3
GES 426	Environmental Modeling	3
Subtotal		32
<b>Electives - Environmental Science</b>		
6 credits required		6
BIOL 305	Wetlands and Aquatic Plants/Lab *	
BIOL 306	Freshwater Biomonitoring/Lab *	
BIOL 357	Environmental Microbiology with Lab *	
CHEM 340	Air Quality Assessment *	
CHEM 370	Water Quality Assessment *	
CHEM 425	Instrumental Analysis *	
CIVL 330	Environmental Engineering *	
EGEO 327	Structural Geology	
EGEO 303	Paleontology/Lab	
EGEO 328	Plate Tectonics	
EGEO 340	Air Pollution Meteorology	
EGEO 341	Geomorphology/Lab	
EGEO 342	Glacial Geology/Lab	
EGEO 362	Stratigraphy/Lab	
EGEO 460	Hydrogeology	
EGEO 469	Field Investigations in the Geosciences	
GES 315	Cartography I	
GES 321	Introduction to UAS for Remote Sensing and Monitoring	
GES 344	Environmental Justice	
GES 345	Population Analysis	
GES 361	Gender and the Environment	
GES 362	Applications in Sustainability	
GES 410	Remote Sensing	
GES 425	Advanced Geographic Information Systems	
MARS XXX	Marine Science Summer Course *	
<b>Total Hours</b>		<b>53</b>

\* Some courses may require pre-requisites. Please see course descriptions to determine if there are any pre-requisites for that specific course.

## Required Related

Code	Title	Hours
These credits DO NOT count towards the major		
CHEM 108	General Chemistry II	3
CHEM 112	General Chemistry II Lab	1

<sup>1</sup> Course counts for 50% of Major requirements and Major GPA

## Natural Science and Math College-Wide Requirements

Code	Title	Hours
CHEM 107	General Chemistry I	3
CHEM 111	General Chemistry I Lab	1
MATH 225	Calculus I	4

PHYS 216	University Physics 1 with Lab	4
<b>Total Hours</b>		<b>12</b>

## Co-curricular and Experiential Learning

Students are encouraged to explore additional curricular and co-curricular opportunities. There is a strong correlation between long-term student success and participation in the following types of programs and activities:

1. International study programs (short-term, semester, and year-long)
2. Student-faculty research
3. Service Learning Courses
4. Internships
5. Volunteering

### ENVIRONMENTAL GEOSCIENCE - BS (6124)

Concentration in Environmental Science (ENSC)

This program is effective as of Effective Fall 2020

Revised 12.06.2021

UCC 10.26.2021

## Important Curriculum Guide Notes

This Curriculum Guide is provided to help SRU students and prospective students better understand their intended major curriculum. Enrolled SRU students should note that the My Rock Audit may place already-earned and/or in progress courses in different, yet valid, curriculum categories. Enrolled SRU students should use the My Rock Audit Report and materials and information provided by their faculty advisers to ensure accurate progress towards degree completion. *The information on this guide is current as of the date listed. Students are responsible for curriculum requirements at the time of enrollment at the University.*

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