

# ENVIRONMENTAL GEOSCIENCE, BACHELOR OF SCIENCE (BA) / PRE-MASTER OF EDUCATION

## Curriculum Guide

### GPA Requirement

Major GPA: 2.0 or higher  
Overall GPA: 2.0 or higher

### Summary\*

Code	Title	Hours
	Rock Studies 2 Requirements	43-45
	Modern Language Requirement	0-9
	Other Basic Requirements	0-3
	Major Requirements	43-46
	Concentration Requirements	6
	Natural Science and Math College-Wide Requirements	12
	Electives	22

\* 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 125 or MATH 225	Precalculus 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

### Integrated Inquiry

#### Creative and Aesthetic Inquiry

Select 3 Credits (<https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/>) 3

#### Humanities Inquiry

Select 3 Credits (<https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/>) 3

#### Social Science Inquiry

Select 3 Credits (<https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/>) 3

#### Natural Sciences Inquiry

Select one of the following: 3-4

SCI 101	Science of Life	
CHEM 1xx	100 Level Chemistry & Lab	

BIOL 1xx	100 Level Biology & Lab	
<i>Physical Science Inquiry</i>		
Select one of the following:		3-4
SCI 102	Understanding the Physical World	
EGEO 1xx	100 Level Environmental Geoscience & Lab	
Subtotal		15-17
<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>2</sup>		12
<b>Total Hours</b>		<b>43-45</b>

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

<sup>2</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.

### BA Modern Language Requirement

BA degree requires language proficiency at the 103 class level. Exemption by placement or examination is possible.

Code	Title	Hours
Complete 0-9 credits		0-9
<b>Total Hours</b>		<b>0-9</b>

### 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	
<b>Total Hours</b>		<b>0-3</b>

### 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

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

Code	Title	Hours
<b>Core Major Requirements</b>		
EGEO 1XX	Any 100-level EGEO course	3-4
EGEO 201	Earth Materials and Processes/Lab	4
EGEO 202	Earth History/Lab	4
EGEO 272	Introduction to Georeports/Lab	1
GES 115	Introduction to Geospatial Technologies	3

GES 205	Cultural Geography	3
GES 324	Environmental Law and Policy	3
GES 325	Introduction to Geographic Information Science	3
<b>Subtotal</b>		<b>24-25</b>
<b>Capstone Experience</b>		
Select one of the following: 3		
GES 444	World Environmental Cultures	
EGEO 469 or GES 469	Field Investigations in the Geosciences	
EGEO 450 or GES 450	Internship	
<b>Subtotal</b>		<b>3</b>
<b>Focus Area</b>		
Choose 10 credits from one of the following Focus Areas: 10		
<i>A: Geology</i>		
Select 10 credits (p. 2)		
<i>B: Geospatial Technology</i>		
Select 10 credits (p. 2)		
<i>C: Environmental Science</i>		
Select 10 credits (p. 2)		
<i>D: Global Studies</i>		
Select 10 credits (p. 2)		
<i>E: Sustainable Communities</i>		
Select 10 credits (p. 2)		
<b>Subtotal</b>		<b>10</b>
<b>Electives</b>		
Any EGEO or GES 300 OR 400-level course 3-4		
Any EGEO or GES 300 OR 400-level course 3-4		
<b>Subtotal</b>		<b>6-8</b>
<b>Total Hours</b>		<b>43-46</b>

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

### Geology

Code	Title	Hours
EGEO 303	Paleontology/Lab	4
EGEO 362	Stratigraphy/Lab	4
EGEO 327	Structural Geology	4
EGEO 328	Plate Tectonics	3
EGEO 358	Introduction to Geophysics/Lab	3
EGEO 342	Glacial Geology/Lab	3
EGEO 351	Mineralogy/Lab	4
EGEO 341	Geomorphology/Lab	3

### Geospatial Technology

Code	Title	Hours
GES 315	Cartography I	3
GES 321	Introduction to UAS for Remote Sensing and Monitoring	3
GES 410	Remote Sensing	3
GES 415	Cartography II	3

GES 425	Advanced Geographic Information Systems	3
GES 426	Environmental Modeling	3

### Environmental Science

Code	Title	Hours
EGEO 131	Oceanography	3
EGEO 360	Introduction to Hydrology/Lab	3
EGEO 340	Air Pollution Meteorology	3
EGEO 451	Geochemistry/Lab	4
EGEO 460	Hydrogeology	3
GES 355 & GES 356	Earth's Changing Climate and Earth's Changing Climate Laboratory	4

### Global Studies

Code	Title	Hours
GES 201	Latin America and the Caribbean	3
GES 303	Asia	3
GES 307	Australia	3
GES 331	Economic Geography	3
GES 345	Population Analysis	3
GES 355 & GES 356	Earth's Changing Climate and Earth's Changing Climate Laboratory	4

### Sustainable Communities

Code	Title	Hours
GES 215	Planning for Sustainable Communities	3
GES 235	Conservation	3
GES 344	Environmental Justice	3
GES 362	Applications in Sustainability	3
GES 361	Gender and the Environment	3
GES 355 & GES 356	Earth's Changing Climate and Earth's Changing Climate Laboratory	4

### Natural Science and Math College-Wide Requirements

Code	Title	Hours
CHEM 107	General Chemistry I	3
CHEM 111	General Chemistry I Lab	1
MATH 125 or MATH 225	Precalculus Calculus I	4
PHYS 201 or PHYS 216	Elements of Physics I with Lab University Physics 1 with Lab	4

**Total Hours** 12

### Recommended Courses for Optional Environmental Geoscience Pre Masters in Education

Code	Title	Hours
SPED 121	Overview of Special Education	3
SEFE 338	Standards-Based Instruction & Assessment in the Inclusionary Classroom	3

Consult your adviser for additional courses

### 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

### **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.*

PASSHE - Pennsylvania State System of Higher Education Institutions

Environmental Geosciences - BA (6 35)  
w/optional Pre Masters in Education (7-12) (PX)  
This program is effective as of Fall 2019.  
Revised 07.08.2022  
UCC 10.26.2021