

SCHOOL OF ARTS AND SCIENCES

GEOLOGY

Faculty

- David Goldsmith (Chair)
- Tiffany Rivera
- Nick Pollock

Program Goals

- **Critical Thinking**
 - Ability to synthesize multiple lines of evidence and multiple sources of data to support geologic hypotheses
 - Ability to use an Earth Systems perspective to integrate understanding of geologic processes across disciplines
- **Creativity**
 - Ability to evaluate data necessary to answer a particular question
 - Ability to think and extrapolate across a broad range of temporal and dimensional scales
- **Collaboration**
 - Ability to work collaboratively to break a complex problem into simpler, individually achievable tasks
 - Ability to work together constructively in challenging field environments
- **Communication**
 - Ability to explain geologic information at a level appropriate to the audience
 - Ability to read and understand the geologic literature and to create original research reports
 - Ability to communicate scientific information through verbal and written presentation of data, graphics, and maps.
- **Global Responsibility**
 - Ability to assess the effects of human activity on the natural environment
 - Ability to bring a geologic perspective to discussions of social issues

Objectives

The Geology program offers a Bachelor of Science degree for students interested in understanding the earth. The degree incorporates a diversity of both perspectives and methods. Classes incorporate lecture, lab, and fieldwork to study our planet's physical, chemical, and biological history.

Program Requirements

Students must maintain a minimum 2.3 GPA in all courses required for the major.

Students must meet the college-wide graduation requirements in addition to the Geology major:

- 124 total hours
- 30 upper division hours
- WCore or Honors College requirements

For course prerequisites, please refer to the course descriptions.

Geology Major

Requirement Description	CH	PREQ
I. World Language Requirement	8	
The student must complete eight credit hours in a single world language.		
II. Lower Division Geology Courses	18	
GEOL 201 Earth Materials I: Mineralogy 4 GEOL 107 or 111 Co-requisite: GEOL 201L GEOL 210 Historical Geology 4 GEOL 107 or GEOL 111 GEOL 214 Sedimentology & Stratigraphy 4 GEOL 107 or 111 Co-requisite: GEOL 214L GEOL 260 Geoliteracy 2 GEOL 107 or 111 Choose one of the following courses: GEOL 107 Geology of the American West 4 GEOL 111 National Parks Geology 4		
III. Upper Division Geology Courses	18	

Requirement Description	CH	PREQ
GEOL 301 Earth Materials II: Petrology 4 GEOL 201, CHEM 111 Co-requisite: GEOL 301L GEOL 310 Structural Geology and Tectonics 4 GEOL 107 or 111 Pre or co-requisite: GEOL 425 and PHYS 152 or PHYS 212 GEOL 315 Principles of Paleontology 4 GEOL 360 Field Geology 6 GEOL 214, GEOL 301, GEOL 310, and GEOL 107 or 111		
Electives	8	
Students must take an additional eight credits in geology, including at least one course at the 400 level.		
Required Courses from Other Programs	24	
CHEM 111 Principles of Chemistry I 4 Pre or co-requisite: MATH 144 or MATH 143 CHEM 112 Principles of Chemistry II 4 CHEM 111 MATH 201 Calculus I 4 MATH 144 MATH 202 Calculus II 4 MATH 201 PHYS 151 or PHYS 211 Principles of Physics I Physics for Scientists and Engineers I 4 4 MATH 144 PHYS 152 or PHYS 212 Principles of Physics II Physics for Scientists and Engineers II 4 4 PHYS 151 or PHYS 211		
Total Hours for the Geology Major	76	

Recommended Plan of Study for Geology

Year 1	Geology Learning Community	CHEM 112
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	CHEM 111 MATH 201	MATH 202 GEOL 210 GEOL 260
Year 2	GEOL 201 PHYS 151	GEOL 301 GEOL 214 PHYS 152
Year 3	GEOL 315 DATA 220 (recommended for students considering graduate school)	GEOL 310 GEOL 360 (summer) GEOL Electives
Year 4	GEOL Electives	GEOL Electives

Geology Minor

Requirement Description	CH	PREQ
I. Required Geology Courses	14	
GEOL 201 Earth Materials I: Mineralogy 4 GEOL 107 or 111 Co-requisite: GEOL 201L GEOL 210 Historical Geology 4 GEOL 107 or GEOL 111 GEOL 260 Geoliteracy 2 GEOL 107 or 111 <i>Choose one of the following courses:</i> GEOL 107 Geology of the American West 4 GEOL 111 National Parks Geology 4		
II. Electives	10	
Students wishing to complete a minor must take an additional 10 credits in Geology, at least 4 of which are at the 300 level.		
Total Hours for the Geology Minor	24	