

William & Mary Geology

Requirements for Majors (See reverse side for Requirements for Minor)

As a Geology major, you must complete 36 or more credit hours *including* Geology 492 or 496 (Senior or Honors Research), which you must pass with a C- or better. Either of these courses satisfies the Geology Writing and Computing requirement. All Geology majors must complete these required core courses:

CORE COURSES		
Course #	Title	Semester & Credit Hours
<input type="checkbox"/> 101/110/150	Physical Geology / Physical Geography / Freshmen Seminar	Fall, Spring (3, 3, 4)
<input type="checkbox"/> 160	Introductory Geology Lab	Fall, Spring (1)
<input type="checkbox"/> 320	Earth Surface Processes	Fall (4)
<input type="checkbox"/> 321	Rock-Forming Minerals	Fall (4)
<input type="checkbox"/> 322	The Sedimentary Record	Spring (4)
<input type="checkbox"/> 323	Earth Structure and Dynamics	Spring (4)
<input type="checkbox"/> 404	Introduction to Geological Research	Spring (1)
<input type="checkbox"/> 491 & 492 or 495 & 496	Senior Research or Honors Research	Fall and Spring 491/492 (2, 2) 495/496 (3, 3)

- For the GEOLOGY OPTION (G), Elective courses totaling at least eleven (11) credits.
- For the ENVIRONMENTAL GEOLOGY OPTION (EG), Elective courses totaling at least eleven (11) credits. One of the courses MUST INCLUDE either 314 or 315, but only one of 314 or 315 can be used to satisfy this requirement. Depending on the topic, 437 may be used to satisfy this requirement with permission of the chair. Also must take BIOLOGY 220 or 318 or 417 or 426 or 427.

ELECTIVES			
Course #	Title	Semester/Frequency & Credit Hours	Option
<input type="checkbox"/> INTR 204	GIS in the Earth & Env. Sciences	every semester (3)	G, EG
<input type="checkbox"/> 303	Age of Dinosaurs	Occasional (3)	G
<input type="checkbox"/> 305	Environmental Geology	Spring (3)	G, EG
<input type="checkbox"/> 306	Marine Geology	Fall(3)	G
<input type="checkbox"/> 307	Planetary Geology	Occasional (3)	G
<input type="checkbox"/> 311	Field Methods in the Earth Sciences	Occasional (3)	G
<input type="checkbox"/> 312	Weather, Climate & Change	Occasional (3)	G, EG
<input type="checkbox"/> 314 or 315	Watershed Dynamics Hydrology	Alternate Spring (4) Alternate Spring (4)	G, EG G, EG
<input type="checkbox"/> 316	Environmental Geochemistry	Fall (3)	G, EG
<input type="checkbox"/> 422	Igneous & Metamorphic Petrology	Spring (3)	G
<input type="checkbox"/> 423	Paleontology	Spring (3)	G
<input type="checkbox"/> 424	Sedimentology Seminar	Occasional (1, 2, or 3)	G
<input type="checkbox"/> 425	Structural Geology Seminar	Occasional (1,2, or 3)	G
<input type="checkbox"/> 426	Paleobiology Seminar	Occasional (1, 2 ,or 3)	G
<input type="checkbox"/> 427	Surface Processes Seminar	Occasional (1,2, or 3)	G, EG
<input type="checkbox"/> 428	Geochemistry Seminar	Occasional (1,2, or 3)	G, EG
<input type="checkbox"/> 429	Hydrology Seminar	Occasional (1, 2, or 3)	G, EG
<input type="checkbox"/> 437	Special Topics Seminar	Occasional (1, 2, or 3)	G, EG (need Chair's perm.)

SCIENCE AND MATH REQUIREMENTS (Majors)
YOU MUST TAKE 8 CREDITS (two courses and associated labs) FROM THE FOLLOWING:
<input type="checkbox"/> Chemistry 103&103L (4) Fall <input type="checkbox"/> Chemistry 206&206L (4) Spring <input type="checkbox"/> Chemistry 308&354 (4) Spring
<input type="checkbox"/> Physics 101 (4) Fall <input type="checkbox"/> Physics 102 (4) Spring
A year of calculus, a year of chemistry, and a year of physics are strongly recommended for a career in the earth sciences.

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Requirements for Minor

Required credit hours: 21 credits (or more depending on choices).

Core requirements: A minor in geology requires seven courses distributed as follows:

1. One from:

GEOL 101 - The Dynamic Earth: Physical Geology (3) or
GEOL 110 - Earth's Environmental Systems: Physical Geography (3) or
GEOL 150W - Freshman Seminar in Geology (4)

2. **GEOL 160** - Investigating the Earth: Introductory Geology Laboratory (1)

3. Two Courses from:

GEOL 320 - Earth Surface Processes (4)
GEOL 321 - Rock-Forming Minerals (4)
GEOL 322 - The Sedimentary Record (4)
GEOL 323 - Earth Structure & Dynamics (4)

4. Three Courses (with at least 9 credits) from: (A course from group 3 above may be substituted for one from this group).

GEOL 303 - Age of Dinosaurs (3)
GEOL 305 - Environmental Geology (3)
GEOL 307 - Planetary Geology (3)
GEOL 310 - Regional Field Geology (1-3)
GEOL 311 - Field Methods in the Earth Sciences (3)
GEOL 312 - Weather, Climate, and Change (3)
GEOL 314 - Watershed Dynamics (4)
GEOL 316 - Environmental Geochemistry (3)
GEOL 422 - Igneous and Metamorphic Petrology (3)
GEOL 423 - Paleontology (3)
GEOL 424 - Sedimentology Seminar (1-3)
GEOL 425 - Structural Geology Seminar (1-3)
GEOL 426 - Paleobiology Seminar (1-3)
GEOL 427 - Surface Processes Seminar (1-3)
GEOL 428 - Geochemistry Seminar (1-3)
GEOL 429 - Hydrology Seminar (1-3)
GEOL 437 - Special Topics Seminar (1-3)