

William & Mary Geology Major Requirements (≥ 36 credit hours)

If students know which subdisciplines they might want to explore for senior research, they should take those courses before the end of their junior year.

INTRODUCTORY SEQUENCE		
Choose one: <input type="checkbox"/> 101&160 <input type="checkbox"/> 110&160 <input type="checkbox"/> 250	Physical Geology + Intro Geology Lab Physical Geography + Intro Geology Lab Geologic Evolution of Virginia	All semesters (4) All semesters (4) All semesters (4)

CORE COURSES (all require Introductory Sequence)		
<input type="checkbox"/> 321	Rock-Forming Minerals	Fall (4)
<input type="checkbox"/> 323	Earth Structure and Dynamics	Spring (4)
Choose one: <input type="checkbox"/> 315 <input type="checkbox"/> 316 <input type="checkbox"/> 320 <input type="checkbox"/> 327	Group A Hydrology (prereq: Math 111) Environmental Geochemistry Earth Surface Processes Igneous & Metamorphic Petrology (prereq: Geol 321)	Alternate Spring (4) Fall (3) Fall (4) Spring (3)
Choose one: <input type="checkbox"/> 322 <input type="checkbox"/> 324 <input type="checkbox"/> 325	Group B The Sedimentary Record Paleoclimatology & Paleoceanography Paleontology	Fall (4) Spring (4) Spring (3)
<input type="checkbox"/> Choose one more from A or B to total at least 10 credits		

SENIOR RESEARCH (must pass with C- or better)		
<input type="checkbox"/> 404	Introduction to Geological Research	Spring (1)
Choose one: <input type="checkbox"/> 491&492 <input type="checkbox"/> 495&496	Senior Research Honors Research	Fall&Spring (3/1) Fall&Spring (3/3)

RELATED SCIENCE PROFICIENCIES: Choose two courses to total 8 credits. These courses do not count towards the minimum 36 credits in geology.		
<input type="checkbox"/> Chem 103&Lab (4) Fall	<input type="checkbox"/> Chem 206&Lab (4) Spring (prereq Chem 103)	
<input type="checkbox"/> Chem 208&254 (4) Spring (prereq Chem 103)		
<input type="checkbox"/> Phys 101 (4) Fall (prereq Math 111)	<input type="checkbox"/> Phys 102 (4) Spring (prereq Phys 101)	

A year of calculus (or advanced statistics), a year of chemistry, a year of physics, and geology field camp are helpful for certain careers and graduate programs in the earth sciences

ELECTIVE COURSES: Totaling ≥ 9 credits.

- Additional courses from Groups A and B can be used for elective credits, but only one of the following courses can count towards the major:
 - Age of Dinosaurs (GEOL 203), Planetary Geology (GEOL 207), **OR** Global Climate Change (GEOL 212)
 - Watersheds (GEOL 314) **OR** Hydrology (GEOL 315)
 - Marine Geology (GEOL 421) **OR** Fundamentals of Marine Geology (MSCI 401C&R)

See next page

GEOLOGY CONCENTRATION (G)**ENVIRONMENTAL GEOLOGY CONCENTRATION (EG):**

- Must take 314 or 315, but only one counts towards the major.
- Must take (BIOL 204 or 318 or 417 or 426 or 427 or 461) or ENSP 440: Restoration Ecology

ELECTIVES (all require Intro Sequence EXCEPT GEOL 203, 207, 212; GIS 201)			
<input type="checkbox"/> 203	Age of Dinosaurs	Occasional (3)	G
<input type="checkbox"/> 207	Planetary Geology	Occasional (3)	G
<input type="checkbox"/> 212	Global Climate Change	Fall (3)	G, EG
<input type="checkbox"/> 305	Environmental Geology	Occasional (3)	G, EG
<input type="checkbox"/> 310	Regional Field Geology	Spring (3)	G
<input type="checkbox"/> 311	Field Methods in Earth Sciences	Occasional (3)	G
<input type="checkbox"/> 314	Watershed Dynamics	Alternate Spring (4)	G, EG
<input type="checkbox"/> 421	Marine Geology	Alternate Fall (3)	G
<input type="checkbox"/> 424-6	Geology Seminars	Rarely (1, 2, or 3)	G
<input type="checkbox"/> 427-9	Env Geology Seminars	Rarely (1, 2, or 3)	G, EG
<input type="checkbox"/> 437	Special Topics Seminar	Rarely (1, 2, or 3)	G, EG*
<input type="checkbox"/> MSCI 401C&R	Fundamentals of Marine Geology&Recitation	Alternate Fall (3)	
<input type="checkbox"/> GIS 201	Introduction to GIS	All (3)	G, EG

*With Chair permission only