



GEOLOGY, B.S.
















The B.S. in Geology degree consists of an interdisciplinary curriculum that provides a sound foundation in both fundamental and applied aspects of geology. Graduates are typically employed by environmental and engineering companies, natural resource industries, and government agencies, or pursue more advanced degrees. The areas of emphasis in this major are optional: Engineering Geology, Environmental Geoscience, Archaeological Geology.










 - General Education Course

 - Milestone course: a key success marker for your major. See your advisor to discuss the importance of this course in your plan of study.

The Core Curriculum is designed to foster critical thinking skills and introduce students to basic domains of thinking that transcend disciplines. The Core applies to all majors. Information on specific classes in the Core can be found at <https://www.marshall.edu/gened/>.

Course Requirements


Code	Title	Credit Hours
Core Curriculum		
<i>Core 1: Critical Thinking</i>		
FYS 100	First Yr Sem Critical Thinking	3
MTH 229 	Calculus/Analytic Geom I (CT)	5
	Critical Thinking Course	3
<i>Core 2</i>		
ENG 101 	Beginning Composition	3
ENG 201 	Advanced Composition	3
CMM 103 	Fund Speech-Communication	3
		
MTH 229 	Calculus/Analytic Geom I (CT)	5
	Core II Humanities	3
	Core II Social Science	3
	Core II Fine Arts	3
GLY 200  	The Dynamic Earth	4
& GLY 210L 	and Earth Materials Lab	
<i>Additional University Requirements</i>		
	Writing Intensive	3
	Writing Intensive	3
	Multicultural or International	3
GLY 491 	Capstone Experience	2-4
or GLY 492 	Capstone Class	
Major-Specific		
GLY 200  	The Dynamic Earth	4
& GLY 210L 	and Earth Materials Lab	
GLY 201 	The Earth Through Time	4
& GLY 211L 	and Earth Through Time Lab	
GLY 212 	Geologic Field Methods	3
GLY 313 	Structural Geology	4
GLY 314 	Mineralogy	4
GLY 320L	Geology Lab Techniques	2

GLY 325 	Stratigraphy & Sediment	4
GLY 420	Principles of Geochemistry	3
GLY 421	Igneous& Metamorphic Petrology	4
GLY 455 & GLY 455L	Hydrogeology and Hydrogeology Laboratory	4
GLY 457	Engineering Geology	4
GLY 491 	Capstone Experience	2-4
or GLY 492 	Capstone Class	
GLY Electives		11
GLY 330	Tectonics	
GLY 426	Applied Geophysics	
GLY 427	Fossil Fuels	
GLY 451	Principles Geomorphology	
GLY 456	Environmental Geology	
<i>Non-GLY Requirements</i>		
CHM 211 	Principles of Chemistry I and Principles of Chem Lab I	5
		
& CHM 217 		
MTH 229 	Calculus/Analytic Geom I (CT)	5
PHY 201 	College Physics I	4
& PHY 202 	and General Physics I Laboratory	
Free Electives		19

Major Information

- Students are strongly encouraged to select courses that meet two or more Core or College requirements. For example, a writing intensive literature course could satisfy the College of Science literature requirement as well as the Core II writing intensive requirement.
- Course offerings and course attributes are subject to change semesters. Please consult each semesters schedule of courses for availability and attributes.
- MTH 229 Calculus/Analytic Geom I (CT) is based on an ACT Mathematics score of 27 or higher. Students with an ACT Mathematics score less than 27 will be placed in the appropriate mathematics and science courses.
- The capstone experience (GLY 491 Capstone Experience) is an individualized research project or internship experience requiring a written report and an oral presentation. The capstone requirement may be met alternatively by attending geology summer field camp or by completing the capstone seminar offered on demand in the spring (GLY 492 Capstone Class).

 - General Education Course

 - Milestone course: a key success marker for your major. See your advisor to discuss the importance of this course in your plan of study.

Semester Plan

Programs of study offered by the Department of Geology are designed for individuals seeking a career as an earth scientist. The greatest number of geologists are employed by natural resource industries. These include metallic and nonmetallic mining companies as well as petroleum, natural gas, and coal companies. New and challenging careers are also available in environmental and engineering

geology. The majority of graduates in the past few years have found employment with environmental and geotechnical companies.

First Year

	Credit Hours
First Semester	
GLY 200 🌿 🎓 The Dynamic Earth & GLY 210L 🌿 and Earth Materials Lab	4
ENG 101 🌿 Beginning Composition	3
FYS 100 First Yr Sem Critical Thinking	3
MTH 229 🌿 Calculus/Analytic Geom I (CT)	5
UNI 100 Freshman First Class	1
Credit Hours	16

Second Semester

GLY 201 🌿 The Earth Through Time & GLY 211L 🌿 and Earth Through Time Lab	4
ENG 201 🌿 Advanced Composition	3
Core II Fine Arts	3
CMM 103 🌿 Fund Speech-Communication 🎓	3
Multicultural or International	3
Credit Hours	16

Second Year

First Semester

CHM 211 🌿 Principles of Chemistry I & CHM 217 🌿 and Principles of Chem Lab I 🎓	5
GLY 212 🎓 Geologic Field Methods	3
GLY 325 🎓 Stratigraphy & Sediment Critical Thinking Course	4
	3
Credit Hours	15

Second Semester

GLY 313 🎓 Structural Geology	4
GLY Elective	4
Writing Intensive	3
Free Elective	3
Credit Hours	14

Third Year

First Semester

GLY 314 🎓 Mineralogy	4
Core II Social Science	3
Writing Intensive	3
GLY Elective	3
Credit Hours	13

Second Semester

GLY 421 Igneous& Metamorphic Petrology	4
GLY Elective	4
Free Elective	4
Free Elective	3
Credit Hours	15

Fourth Year

First Semester

PHY 201 🌿 🎓 College Physics I & PHY 202 🌿 and General Physics I Laboratory	4
GLY 491 🌿 Capstone Experience or GLY 492 🌿 or Capstone Class	2-4
GLY 320L Geology Lab Techniques	2
GLY 457 Engineering Geology	4
Free Elective	3
Credit Hours	15-17

Second Semester

GLY 455 Hydrogeology & GLY 455L and Hydrogeology Laboratory	4
GLY 420 Principles of Geochemistry	3
Core II Humanities	3
Free Elective	3
Free Elective	3
Credit Hours	16
Total Credit Hours	120-122

Areas of Emphasis

- Archaeological Geology, Emphasis (<https://catalog.marshall.edu/undergraduate/programs-az/science/natural-resources-earth-sciences/geology-bs/archaeological-geology-emphasis/>)
- Engineering Geology, Emphasis (<https://catalog.marshall.edu/undergraduate/programs-az/science/natural-resources-earth-sciences/geology-bs/engineering-geology-emphasis/>)
- Environmental Geoscience, Emphasis (<https://catalog.marshall.edu/undergraduate/programs-az/science/natural-resources-earth-sciences/geology-bs/environmental-geoscience-emphasis/>)