

# GEOLOGY ENVIRONMENTAL GEOSCIENCE

## REQUIREMENTS

**CORE CURRICULUM** 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 [marshall.edu/gened](http://marshall.edu/gened).

### CORE 1: CRITICAL THINKING

CODE	COURSE NAME	HRS	GRADE
FYS 100	First Year Seminar	● 3	_____
MTH 229	Critical Thinking Course	● 5	_____
_____	Critical Thinking Course	● 3	_____
<b>Additional University Requirements</b>			
_____	Writing Intensive	3	_____
_____	Writing Intensive	3	_____
_____	Multicultural or International	3	_____
GLY 491	Capstone	2	_____

### CORE 2:

CODE	COURSE NAME	HRS	GRADE
ENG 101	Beginning Composition	● 3	_____
ENG 201	Advanced Composition	● 3	_____
CMM 103	Fund Speech-Communication	● 3	_____
MTH 229	Calculus I (CT)	● ♦ 5	_____
_____	Core II Humanities	● 3	_____
_____	Core II Social Science	● 3	_____
_____	Core II Fine Arts	● 3	_____
CHM 211/217	Principles of Chemistry I / Lab	● ♦ 5	_____

### MAJOR-SPECIFIC

All Geology majors with an area of emphasis in Environmental Geoscience are required to take the following courses:

CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
GLY 200	The Dynamic Earth	♦ 3	_____	MTH 229	Calculus I (CT)	● ♦ 5	_____
GLY 210L	Earth Materials Lab	♦ 1	_____	CHM 211	Principles of Chemistry I	● ♦ 3	_____
GLY 201	The Earth Through Time	♦ 3	_____	CHM 217	Principles of Chemistry Lab I	● ♦ 2	_____
GLY 211L	Earth Through Time Lab	♦ 1	_____	PHY 201	College Physics I	♦ 3	_____
GLY 212	Geologic Field Methods	♦ 3	_____	PHY 202	General Physics I Lab	♦ 1	_____
GLY 313	Structural Geology	♦ 4	_____	PS 410	Remote Sensing	♦ 4	_____
GLY 314	Mineralogy	♦ 4	_____	ENG 354	Scientific & Tech Writing	♦ 3	_____
GLY 320L	Lab Techniques in Geology	♦ 2	_____	GEO 222	Global Environmental Issues	♦ 3	_____
GLY 325	Stratigraphy & Sediment	♦ 4	_____	GEO 429	Location Analysis and GIS	♦ 4	_____
GLY 420	Principles of Geochemistry	♦ 4	_____	_____	Free Elective	3	_____
GLY 423	Sedimentary Petrology	♦ 4	_____	_____	Free Elective	3	_____
GLY 426	Geophysics	♦ 3	_____	_____	Free Elective	2	_____
GLY 455	Hydrogeology	♦ 3	_____	_____	Free Elective	1	_____
GLY 455L	Hydrogeology Lab	♦ 1	_____				
GLY 456	Environmental Geology	♦ 4	_____				
GLY 457	Engineering Geology	♦ 4	_____				
GLY 491	Capstone	♦ 2	_____				

### 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.
- Math 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) 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 each spring.

● Area of Emphasis

♦ Major Requirement

■ College Requirement

● General Education Requirement

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

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Programs of study offered by the Department of Geology are designed for individuals seeking a career as an earth scientist. The greatest numbers of geologists are employed by natural resource industries. These include metallic and nonmetallic mining companies as well as petroleum, natural gas, and coal companies. This area of emphasis utilizes an interdisciplinary curriculum, which will prepare graduates for careers involving the application of geologic concepts to the solution of environmental problems.

	FALL SEMESTER				SPRING SEMESTER			
	CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
YEAR ONE	GLY 200	The Dynamic Earth	3	_____	GLY 201	The Earth Through Time	3	_____
	GLY 210L	Earth Materials Lab	1	_____	GLY 211L	Earth Through Time Lab	1	_____
	ENG 101	Beginning Composition	3	_____	_____	CT Designated Course	3	_____
	FYS 100	First Year Sem Crit Thinking	3	_____	_____	Core II Fine Arts	3	_____
	MTH 229	Calculus I (CT)	5	_____	_____	Multicultural/International	3	_____
	UNI 100	Freshman First Class	1	_____	_____	Free Elective	1	_____
<b>TOTAL HOURS</b>			<b>16</b>		<b>TOTAL HOURS</b>			<b>14</b>

Summer Term (optional):

	FALL SEMESTER				SPRING SEMESTER			
	CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
YEAR TWO	CHM 211	Principles of Chemistry I	3	_____	ENG 354	Scientific & Tech Writing	3	_____
	CHM 217	Principles of Chemistry I Lab	2	_____	GLY 313	Structural Geology	4	_____
	GLY 212	Geologic Field Methods	3	_____	PS 410	Remote Sensing	4	_____
	GLY 325	Stratigraphy & Sediment	4	_____	_____	Writing Intensive	3	_____
	ENG 201	Advanced Composition	3	_____	_____	Free Elective	3	_____
	<b>TOTAL HOURS</b>			<b>15</b>		<b>TOTAL HOURS</b>		

Summer Term (optional):

	FALL SEMESTER				SPRING SEMESTER			
	CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
YEAR THREE	GLY 320L	Lab Techniques in Geology	2	_____	CMM 103	Fund Speech-Communcations	3	_____
	GLY 314	Mineralogy	4	_____	GLY 420	Principles of Geochemistry	3	_____
	PHY 201	College Physics I	3	_____	GLY 456	Environmental Geology	4	_____
	PHY 202	General Physics I Lab	1	_____	GLY 426	Geophysics	3	_____
	GLY 423	Sedimentary Petrology	4	_____				
	_____	Core II: Social Science	3	_____				
<b>TOTAL HOURS</b>			<b>17</b>		<b>TOTAL HOURS</b>			<b>13</b>

Summer Term (optional):

	FALL SEMESTER				SPRING SEMESTER			
	CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
YEAR FOUR	GLY 491	Capstone	2	_____	GEO 429	Location Analysis and GIS	4	_____
	GLY 457	Engineering Geology	4	_____	_____	Writing Intensive	3	_____
	_____	Core II: Humanities	3	_____	GEO 222	Global Environmental Issues	3	_____
	_____	Free Elective	3	_____	GLY 455	Hydrogeology	3	_____
	_____	Free Elective	2	_____	GLY 455L	Hydrogeology Lab	1	_____
	<b>TOTAL HOURS</b>			<b>14</b>		<b>TOTAL HOURS</b>		

Summer Term (optional):

Area of Emphasis

Major Requirement

College Requirement

General Education Requirement

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