BS in Enviromental Geology (694030) MAP Sheet

Physcial and Mathematical Sciences, Geological Sciences
For students entering the degree program during the 2024-2025 curricular year

University Core and Graduation Requirements

University Core Requirements:

Requirements	# Classes	Hours	Classes
Religion Cornerstones			
Teachings and Doctrines of the Book of Mormon	1	2.00	REL A 275
Jesus Chirst and the Everlasting Gospel	1	2.00	REL A 250
Foundations of the Restoration	1	2.00	REL C 225
The Eternal Family	1	2.00	REL C 200
BYU Foundations for Student Success			
Foundations for Student Success	1	2.00	UNIV 101
The Individual and Society			
American Heritage	1 to 2	3.00-6.00	from approved list
Global and Cultural Awareness	1	3.00	from approved list
Skills			
First Year Writing	1	3.00	from approved list
Advanced Written and Oral Communications	1	3.00	WRTG 316*
Quantitative Reasoning	1	4.00	MATH 112*
Languages of Learning (Math of Language)	1	4.00	MATH 112*
Arts, Letters and Sciences (Complete 6 of 7)			
Civilization 1	1	3.00	from approved list
Civilization 2	1	3.00	from approved list
Arts	1	3.00	from approved list
Letters	1	3.00	from approved list
Biological Science	1	3.00-4.00	from approved list
Physical Science	2	3.00	from approved list
Social Science	1	3.00	from approved list
Core Enrichment: Electives			
Religion Electives	3 to 4	6.00	from approved list
Open Electives	Variable	Variable	personal choice

Graduation Requirements:

Minimum residence hours requried	30.00
Minimum hours needed to graduate	120.00

*These classes fill both university core and program requirements

Suggested Sequence of Courses

FRESHMAN YEAR

1st Semester

UNIV 101	2.00
First Year Writing	3.00
GEOL 111	4.00
CHEM 105 or CHEM 111	4.00
Religion Cornerstone Class	2.00
Total Hours:	**15.00**

2nd Semester

American Heritage	3.00
CHEM 106 & 107 or CHEM 112	3.00-4.00
MATH 112	4.00
GE Arts, Letters, Sciences	3.00
Religion Cornerstone Class	2.00
Total Hours:	**15.00-16.00**

SOPHMORE YEAR

3rd Semester

GEOL 210	3.00
GEOL 230	3.00
MATH 113	4.00
GE Arts, Letters, Sciences	3.00
Religion Cornerstone Class	2.00
Total Hours:	**15.00**

* Geol 210 Begins meeting before start of Fall semester

4th Semester

GEOL 370	3.00
Enviornmental Elective 1	3.00
PHSCS 105	3.00
GE Arts, Letters, Sciences	3.00
Religion Cornerstone Class	2.00
Total Hours:	**14.00**

JUNIOR YEAR

5th Semester

WRTG 316	3.00
GEOL 491R	0.50
GEOL 435	3.00
PHSCS 106	3.00
GEOL 375	3.00
GE Religion	2.00
Total Hours:	**14.50**

6th Semester

GEOL 445	3.00
GEOL 491R	0.50
GEOL 550	3.00
STAT 121	3.00
Open Elective	2.00
GE Religion	2.00
Total Hours:	**13.50**

SPRING/SUMMER

GEOL 420	2.00
GEOL 421	2.00
GEOL 422	2.00
Total Hours:	**6.00**

SENIOR YEAR

7th Semester

Enviornmental Elective 2	3.00
Enviornmental Elective 3	3.00
GEOL 491R	0.50
Global and Cultural Awareness	3.00
GE Arts, Letters, Sciences	3.00
GE Religion	2.00
Total Hours:	**14.50**

8th Semester

GEOL 535R	3.00
Enviornmental Elective 4	3.00
GEOL 491R	0.50
GE Arts, Letters, Sciences	3.00
GE Arts, Letters, Sciences	3.00
Total Hours:	**12.50**

Program Requirements:

Licensure: This program meets the educational requirements designed to lead to an occupationally required professional license or certificate in the state of Utah. Students pursuing occupations requiring a license or certificate in a state other than Utah should contact the appropriate BYU academic advisement center as well as the licensing agency in the state where they intend to work to seek information and guidance regarding licensure and certification requirements.

Requirement 1 — Complete 12 Courses

GEOL 111 - Physical Geology 4.0
GEOL 210 - Field Studies 3.0
GEOL 230 - Geological Communications 3.0
GEOL 370 - Sedimentology & Stratigraphy 3.0
GEOL 375 - Structural Geology 3.0
GEOL 420 - Geological Field Methods 2.0
GEOL 421 - Geological Mapping 2.0
GEOL 422 - Geologic Writing 2.0
GEOL 435 - Groundwater 3.0
GEOL 445 - Geochemistry 3.0
GEOL 535 - Contaminant Hydrogeology 3.0
GEOL 550 - Environmental Soil Chemistry 3.0

Requirement 2 — Complete 2 hours

GEOL 491R - Geology Seminar - *You may take 4 times* 0.5

Requirement 3 — Complete 4 Courses

Note: PWS lectures and labs (PWS 282 & 283; PWS 305 & 306; PWS 365 & 366) require separate registration and can be taken separately.

CE 341 - Soil Mechanics 3.0
CE 414 - Engr Applications of GIS 3.0
CE 331 - Hydrology 3.0
CE 451 - Environmental Engineering Proc 3.0
CE 514 - Geospatial Software Dev 3.0
CE 531 - Hydrologic Modeling 3.0
CE 540 - Geo-Environmental Engineering 3.0
CE 547 - Groundwater Modeling 3.0
CE 551 - Water Treatment Fac Design 3.0
CE 555 - Environmental Chemistry 3.0
GEOG 313 - Remote Sensing 1 3.0
GEOG 413 - Remote Sensing 2 3.0
GEOL 330 - Geology for Engineers 3.0
GEOL 351 - Mineralogy 4.0
GEOL 352 - Petrology 3.0
GEOL 405 - GeoMathematics 3.0
GEOL 411 - Geomorphology 3.0
PWS 282 - Soil Science 3.0
PWS 283 - Soil Science Lab 1.0
PWS 305 - Watershed Ecology 3.0
PWS 306 - Watershed Ecology Lab 1.0
PWS 365 - Biogeochem 3.0
PWS 366 - Biogeochem Lab 1.0
PWS 375 - Aquatic Policies & Laws 3.0

Requirement 4 — Complete 1 of 2 Options

Option 4.1 — Complete 3 Courses

CHEM 105 - Gen College Chem 1+Lab Integr 4.0
CHEM 106 - General College Chemistry 2 3.0
CHEM 107 - Gen Coll Chem Lab 1.0

Option 4.2 — Complete 2 Courses

CHEM 111 - Principles of Chemistry 1 4.0
CHEM 112 - Principles of Chemistry 2 3.0

Requirement 5 — Complete 6 Courses

MATH 112 - Calculus 1 4.0
MATH 113 - Calculus 2 4.0
PHSCS 105 - General Physics 1 3.0
PHSCS 106 - General Physics 2 3.0
STAT 121 - Intro to Stat Data Analysis 3.0
WRTG 316 - Technical Communication 3.0

Requirement 6 — Obtain confirmation from your advisement center that you have completed the following:

Complete a practice version of the American State Board of Geologists fundamentals of geology exam.

THE DISCIPLINE

Environmental geology deals with the protection and management of groundwater, surface water, and soil systems. Over 22% of the water supply in the United States comes from groundwater. As population grows and climate change proceeds, water resources will be under increased pressure. No less important than water is the understanding of the Critical Zone, the shallow soils with which surface and ground waters interact and upon which most life depends. Study of the Critical Zone is, to a large degree, an undertaking of environmental geology. Understanding the science of environmental geology will enhance students' sense of stewardship for the Earth.

CAREER OPPORTUNITIES

Environmental geology graduates are prepared for employment in industry, environmental consulting firms, government, education, or academia. The program provides training and skills for employment with a bachelor's degree or for continued education in graduate programs to study environmental geology, business, or law. Jobs in geosciences and hydrology are expected to continue to grow over the coming decade. Most environmental geology graduates are employed in the environmental industry, state, or federal governments.

MAP DISCLAIMER

While every reasonable effort is made to ensure accuracy, there are some student populations that could have exceptions to listed requirements. Please refer to the university catalog and your college advisement center/department for complete guidelines.

ADVISEMENT CENTER INFORMATION
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