Environmental Geology and Geohydrology (EGGH) degree program
Approved 2015

A. Required Courses	**Cr.**	**USP**
CHEM 1020 and 1030	8	PN
PHYS 1110 or 1210	4	PN
MATH 2200 and 2205	8	Q
LIFE 1010 or STAT 2050 or MATH 2210 or PHYS 1120 or PHYS 1220	4	Q/PN
GEOL 1100 or GEOL 1005 or GEOL 1200 or GEOL 1500 or GEOL 1600	4	PN
GEOL 2000 Geochemical Cycles, Earth System	4	
GEOL 2010 Mineralogy	3	
GEOL 2080 Field Geology	3	
GEOL 2100 Stratigraphy and Sedimentation	4	
GEOL 4444 Geohydrology	4	
GEOL 4490 Geochemistry	4	
GEOL 4777 Geochemistry of Natural Waters	3	
GEOL 4880 Earth Surface Processes	3	
GEOL 4820 Capstone	3	COM3
Subtotal:	59	

B. Electives, in consultation with advisor (must total 18 credit hours):		
GEOL 2020 Introduction to Petrology	2	
GEOL 2070 Introduction to Oceanography	4	
GEOL 3005 Principles of Geophysics	4	
Or GEOL 2005 Introduction to Geophysics		
GEOL 4610 Structure and Tectonics	4	
GEOL 3400 Geologic Hazards	4	
GEOL 3500 Global Change	4	
GEOL 3600 Earth and Mineral Resources	4	PN
GEOL 3650 Energy, A Geological Perspective	4	PN
GEOL 4113 Geological Remote Sensing	4	
GEOL 4525 Environmental Data Analysis	4	
GEOL 4888 Glaciology	3	

NOTE: There are relevant courses outside the Department of Geology and Geophysics that may be substituted for courses in the Electives (B) list above provided that such substitutions are made with the consent of an advisor. A list of such courses may be obtained from the Department. Students who seek the Geology BS may not also seek EGGH as a double major, and vice versa.

Possible electives outside department:
BOT 4550 Computational Biology (Math 2200, LIFE 1010)
BOT 4780 Biogeochemistry (Organic Chemistry Course)
CE 3300 Hydraulics (ES 2330)
CE 3400 Introduction to Environmental Engineering (MATH 2205, CHEM 1030)
CE 3600 Soil Mechanics (ES 2410, Mechanics of materials)
CE 4430 Environmental Engineering Chemistry (CHEM 1020)
CE 4620 Soil and Rock Slope Engineering (CE 3600)
CE 4630 Geotechnical Engineering (CE 3600)
CE 4800 Hydrology (CE 3600)
CE 4820 Groundwater and Drainage Engineering (ES2330, Fluid Dynamics)
CHEM 2300 Introductory Organic Chemistry
CHEM 2420 Organic Chemistry I (CHEM 1030)
CHEM 2440 Organic Chemistry II (CHEM 2420)
CHEM 3020 Environmental Chemistry (CHEM 2300 or 2420)
CHEM 4110 Introductory Inorganic Chemistry (CHEM 2420)
GEOG 3010 Landforms and Soils (GEOG 1010)
GEOG 3450 Weather and Climate (GEOG 1000, 1010 or 1020)
GEOG 3480 Environmental Change GEOG 1010)
GEOG 4000 Terrain Analysis (GEOG 2150)
GEOG 4450 Fluvial Geomorphology (GEOG 3010, GEOL 2100 or 2150)
MATH 2210 Calculus III
MICR 2021 General Microbiology (LIFE 1010, CHEM 1000 or higher)
MICR 4140 Soil Microbiology (SOIL 2010m, Intro to Soil Sci.)
SOIL 3130 Environmental Quality
SOIL 4130 Chemistry of the Soil Environment (SOIL 2010, CHEM 1030)
SOIL 4535 Soil Biogeochemistry (SOIL 2010)
STAT 2050 Fundamentals of Statistics