



# DEPARTMENT OF GEOLOGY & GEOPHYSICS

COLLEGE OF MINES AND EARTH SCIENCES | THE UNIVERSITY OF UTAH

## COURSE REQUIREMENTS BACHELOR OF SCIENCE IN GEOSCIENCE-ENVIRONMENTAL GEOSCIENCE

### Required Courses

Complete all of the following:

<b>Geoscience Core:</b>	<u>Credits</u>	<u>Semester</u>	<u>Prerequisites</u>
• GEO 1100 Evolving Earth	3	Fall/Spring	None
• GEO 2100 Reactive Earth	3	Fall/Spring	CHEM 1210, GEO 1100
• GEO 2500 Wasatch in the Field	3	Fall	None
• GEO 3100 Dynamic Earth	3	Fall/Spring	PHYS 2210, GEO 2100
• GEO 4500 Field Methods	3	Spring	GEO 2500, 3100
<b>Environmental Capstone:</b>			
• GEO 4510 Field Geology (Pt. 1)	2	Summer	GEO 4500
• GEO 4520 Field Geology (Pt. 2)	2	Summer	GEO 4510
<b>Electives:</b>			
• Complete at least 12 credits from the following types of courses: 3000-5999 in GEO, MET E, ATMOS, MG EN, BIOL, MATH, CHEM, PHYS, BIOEN, CH EN, CS, CVEEN, ECE, ME EN, MSE			

### Emphasis Required Courses

Complete all of the following:

#### **General Environmental:**

Earn at least 6 credits from the following:

• ATMOS 3100 Atmos Chem	3	Spring Odd Years	CHEM 1210, MATH 1220
• BIOL 1210 Principles of Biology	4	All	None
• BIOL 1610 Fund Prin of Biol I	3		MATH 1010
• BIOL 1620 Fund Prin of Biol II	3		MATH 1010
• BIOL 2010 Evol & Div of Life	3	Fall/Spring	BIOL 1210
• BIOL 3410 Eco & Evol	3	Spring	BIOL 2010, MATH 1210
• GEO 3180 Paleobiology	3	Spring	None
• GEO 3300 The Water Planet	3	Spring	None
• GEO 3800 The Oceans	3	Fall	GEO 1010 or 1100
• GEOG 3210 Global Climate Ch	3	Spring	None

### Carbon Cycle:

Complete at least 1 of the following:

- |                               |   |  |      |
|-------------------------------|---|--|------|
| • GEO 5675 Paleoclimate Recon | 3 |  | None |
| • GEO 5680 The Carbon Cycle   | 3 |  | None |

### Physical Hydrology:

Complete at least 1 of the following:

- |                              |   |      |           |
|------------------------------|---|------|-----------|
| • GEO 5350 Groundwater       | 3 | Fall | MATH 1220 |
| • GEO 5650 Hydro & Water Res | 3 |      | None      |

### Chemical Hydrology:

Complete at least 1 of the following:

- |                                  |   |        |                 |
|----------------------------------|---|--------|-----------------|
| • GEO 5390 Solute Trans & Sub Re | 3 | Spring | GEO 5350        |
| • GEO 5660 Geochemistry          | 3 | Fall   | CHEM 1220       |
| • GEO 5690 Environ Chemodyn      | 3 |        | CHEM 1210, 1220 |

### Geoscience Electives:

Earn at least 6 credits from GEO 5000-5999

### Allied Science

Complete all of the following:

- |                                    |   |     |                               |
|------------------------------------|---|-----|-------------------------------|
| • CHEM 1210 General Chemistry I    | 4 | All | MATH 1050                     |
| • CHEM 1215 Gen Chem I Lab         | 1 | All | CHEM 1210 coreq               |
| • CHEM 1220 General Chemistry II   | 4 | All | CHEM 1210                     |
| • CHEM 1225 Gen Chem II Lab        | 1 | All | CHEM 1215                     |
| • MATH 1210 Calculus I             | 4 | All | MATH 1050 & 1060 or MATH 1080 |
| • MATH 1220 Calculus II            | 4 | All | MATH 1210                     |
| • PHYS 2210 Physics for Sci&Eng I  | 4 | All | MATH 1210                     |
| • PHYS 2220 Physics for Sci&Eng II | 4 | All | PHYS 2210, MATH 1220          |

Complete at least 1 of the following:

- |                                  |   |      |           |
|----------------------------------|---|------|-----------|
| • MET E 3070 Stat Methods in ESE | 3 | Fall | MATH 1050 |
| • MATH 3070 Applied Statistics I | 4 | All  | MATH 1220 |

### Other Requirements

University of Utah General Education Requirements

*The University of Utah requires a total of 122 college level credits to complete a Bachelor's degree. Additional elective courses may need to be completed to fulfill the total of 122 credits. Check with your academic advisor with any questions or concerns.*

#### Academic Advisor

Michelle Tuitupou

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Updated: 4/4/2018



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## SAMPLE SCHEDULE BACHELOR OF SCIENCE IN GEOSCIENCE-ENVIRONMENTAL GEOSCIENCE

<u>Fall Semester</u>		<u>Spring Semester</u>	
MATH 1210	4	MATH 1220	4
CHEM 1210	4	CHEM 1220	4
CHEM 1215	1	CHEM 1225	1
GEO 1100	3	GEO 2100	3
GEO 2500	<u>3</u>	WRTG 2010 (WR)	<u>3</u>
Total:	15	Total:	15

<u>Fall Semester</u>		<u>Spring Semester</u>	
PHYS 2210	4	PHYS 2220	4
GEO 3100 (QI)	3	General Environmental <sup>2</sup>	3
MET E 3070 (AI)	3	Physical Hydrology <sup>3</sup> (BF)	3
	<u>3</u>		<u>3</u>
Total:	13	Total:	13

<u>Fall Semester</u>		<u>Spring Semester</u>	
General Environmental <sup>2</sup>	3	Chemical Hydro (QI) <sup>5</sup>	3
Carbon cycle <sup>4</sup>	3	Elective <sup>1</sup>	3
Elective <sup>1</sup> (BF)	3	Geoscience Elective <sup>6</sup> (FF)	3
	<u>3</u>	(HF)	<u>3</u>
Total:	12	Total	15

<u>Fall Semester</u>		<u>Spring Semester</u>	
Elective <sup>1</sup>	3	GEO 4500 (CW)	3
Geoscience Elective <sup>6</sup> (FF)	3	Elective <sup>1</sup> (IR)	3
(HF)	<u>3</u>	(DV)	<u>3</u>
Total:	12	Total:	12

<u>Summer</u>	
GEO 4510	2
GEO 4520	<u>2</u>
Total:	4

<sup>1</sup>Elective: Completed at least 12 credits from the following types of courses: 3000 - 5999 in GEO, MET E, ATMOS, MG EN , BIOL, MATH, CHEM, PHYS, BIOEN, CH EN, CS, CVEEN, ECE, ME EN, MSE

<sup>2</sup>General Environmental: Earned at least 6 credits from the following: [GEO 3180](#) - Paleobiology (3), [BIOL 1210](#) - Principles of Biology (4), [BIOL 2330](#) - Plants and Society (3), [BIOL 1400](#) - Introduction to Environmental Science (3), [BIOL 2010](#) - Evolution & Diversity of Life (3), [BIOL 3410](#) - Ecology and Evolution (3), [GEO 3300](#) - The Water Planet (3), [GEO 3800](#) - The Oceans (3), [ATMOS 3100](#) - Atmospheric Chemistry and Air Pollution (3), [GEOG 3210](#) - Global Climate Change (3), [BIOL 1610](#) - Fundamental Principles of Biology I: Cells, Genetics, and Biochemistry (3), [BIOL 1620](#) - Fundamental Principles of Biology II: Evolution and Diversity of Life (3).

<sup>3</sup>Physical Hydrology: Completed at least 1 of the following: [GEO 5350](#) - Groundwater (3), [GEO 5650](#) - Hydrology and Water Resources (3).

<sup>4</sup>Carbon Cycle: Completed at least 1 of the following: [GEO 5675](#) - Paleoclimate Reconstruction (3), [GEO 5680](#) - The Carbon Cycle: Past, Present, Future (3).

<sup>5</sup>Chemical Hydrology: Completed at least 1 of the following: [GEO 5390](#) - Solute Transport and Subsurface Remediation (3), [GEO 5660](#) - Geochemistry (3), [GEO 5690](#) - Environmental Chemodynamics (3).

<sup>6</sup>Geoscience Elective: Earned at least 6 credits from GEO 5000 – 5999.

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Academic Advisor: Michelle Tuitupou [michelle.tuitupou@utah.edu](mailto:michelle.tuitupou@utah.edu) 801-581-6553 383 FASB

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