



DEPARTMENT OF GEOLOGY & GEOPHYSICS

COLLEGE OF MINES AND EARTH SCIENCES | THE UNIVERSITY OF UTAH

COURSE REQUIREMENTS BACHELOR OF SCIENCE IN GEOLOGICAL ENGINEERING

Required Courses

Complete all of the following:

| Core: | <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 |

Required Courses:

Complete all of the following:

| | | | |
|-----------------------------------|---|-------------------|----------------------------------|
| • GEO 3010 Geophysics | 3 | Spring | PHYS 2220 |
| • GEO 3040 Sed & Strat | 4 | Fall | |
| • GEO 3075 Intro to Geo Eng | 2 | Spring | MATH 1220, CHEM 1220 |
| • GEO 3400 Comp & Num Methods | 3 | Fall | MATH 1210 |
| • GEO 4510 Field Geol (Pt. 1) | 2 | Summer | GEO 4500 |
| • GEO 5150 Geol Eng Design | 3 | Spring | CVEEN 3310, GEO 5350, MG EN 5150 |
| • GEO 5350 Groundwater | 3 | Fall | MATH 1210 |
| • GEO 5360 Fluid Dynamics | 3 | Spring Even Years | MATH 2250 |
| • GEO 5385 Groundwater Modeling | 1 | Spring | GEO 5350, coreq-GEO 5390 |
| • GEO 5390 Solute Trans & Sub Rem | 3 | Spring | GEO 5350, coreq-GEO 5385 |
| • CMES/SCI/ENG Tech Elec 5000+ | 3 | Varies | Varies |

Complete at least 1 of the following:

| | | | |
|------------------------------------|---|--------|------------------------|
| • GEO 4060 Structural Geology | 4 | Spring | GEO 3100 or Equivalent |
| • GEO 3065 Structural Geol for Eng | 2 | Spring | GEO 1100, MATH 1060 |

*Take with GEO 3075

Allied Engineering Courses

Complete all of the following:

| | | | |
|----------------------------------|---|-------------|----------------------------------|
| • CVEEN 2010 Statics | 3 | Fall/Spring | MATH 1210, PHYS 2210 |
| • CVEEN 3310 Geotech Eng | 3 | Fall/Spring | MG EN 5150 |
| • CVEEN 3315 Geotech Eng Lab | 1 | Fall/Spring | coreq-CVEEN 3310 |
| • MET E 3070 Stat Methods in ESE | 3 | Fall | MATH 1050 |
| • MG EN 1050 Tech Comm | 2 | Spring | None |
| • MG EN 2400 Intro to Surveying | 3 | Fall | MATH 1060 |
| • MG EN 5150 Mech of Materials | 3 | Spring | PHYS 2220, MATH 2210, CVEEN 2010 |

Complete at least 1 of the following:

| | | | |
|---------------------------------|---|------|------------|
| • CVEEN 5305 Intro to Found Eng | 3 | Fall | CVEEN 3310 |
| • MG EN 5160 Rock Mech App | 3 | Fall | MG EN 5150 |

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 |
| • MATH 1210 Calculus I | 4 | All | MATH 1050 & 1060 or MATH 1080 |
| • MATH 1220 Calculus II | 4 | All | MATH 1210 |
| • MATH 2210 Calculus III | 3 | All | MATH 1220 |
| • MATH 2250 Diff Equat & Lin Alb | 4 | All | MATH 2210 |
| • PHYS 2210 Physics for Sci&Eng I | 4 | All | MATH 1210 |
| • PHYS 2215 Phys for Sci&Eng I Lab | 1 | All | PHYS 2210-coreq |
| • PHYS 2220 Physics for Sci&Eng II | 4 | All | PHYS 2210, MATH 1220 |

Other Requirements

Fundamentals of Engineering Exam: Pass

- Proof of passing exam must be emailed to academic advisor to clear graduation 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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801-581-6553

383 FASB



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SAMPLE SCHEDULE BACHELOR OF SCIENCE IN GEOLOGICAL ENGINEERING

Fall Semester

| | |
|------------|----------|
| MATH 1210 | 4 |
| CHEM 1210 | 4 |
| CHEM 1215 | 1 |
| GEO 1100 | 3 |
| *WRTG 2010 | <u>3</u> |
| Total: | 15 |

Spring Semester

| | |
|------------|----------|
| MATH 1220 | 4 |
| CHEM 1220 | 4 |
| MG EN 1050 | 2 |
| GEO 2100 | 3 |
| *AI | <u>3</u> |
| Total: | 16 |

Summer

| | |
|-----------|----------|
| PHYS 2210 | 4 |
| PHYS 2215 | 1 |
| *FF/DV | <u>3</u> |
| Total: | 8 |

Fall Semester

| | |
|------------|----------|
| MATH 2210 | 3 |
| PHYS 2220 | 4 |
| GEO 2500 | 3 |
| GEO 3400 | 3 |
| CVEEN 2010 | <u>3</u> |
| Total: | 16 |

Spring Semester

| | |
|------------|----------|
| MATH 2250 | 4 |
| MG EN 5150 | 3 |
| GEO 3010 | 3 |
| *IR | <u>3</u> |
| Total: | 13 |

Summer

| | |
|--------|----------|
| *HF | 3 |
| *BF | <u>3</u> |
| Total: | 6 |

Fall Semester

| | |
|------------|----------|
| MG EN 2400 | 3 |
| GEO 5350 | 3 |
| GEO 3100 | 3 |
| GEO 3040 | <u>4</u> |
| Total: | 13 |

Spring Semester

| | |
|------------------|----------|
| GEO 4500 | 3 |
| GEO 4060 or 3065 | 4 or 2 |
| GEO 3075 | 2 |
| GEO 5385 | 1 |
| CVEEN 3310 | 3 |
| CVEEN 3315 | <u>1</u> |
| Total: | 14 or 12 |

Summer

| | |
|----------|---|
| GEO 4510 | 2 |
|----------|---|

Fall Semester

| | |
|--------------------------|----------|
| MET E 3070 | 3 |
| *HF | 3 |
| MG EN 5160 or CVEEN 5305 | 3 |
| *FF | 3 |
| *BF | <u>3</u> |
| Total: | 15 |

Spring Semester

| | |
|---------------|----------|
| Tech Elective | 3 |
| GEO 5150 | 3 |
| GEO 5390 | 3 |
| GEO 5360 | <u>3</u> |
| Total: | 12 |

Fundamentals of Engineering Exam: Pass

- Proof of passing exam must be emailed to Geological Engineering Academic Advisor to clear graduation requirements

***These courses can be interchangeable. Please check schedule for availability.**

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 michelle.tuitupou@utah.edu 801-581-6553 383 FASB

Updated: 4/4/2018