BS in Geology (694022) MAP Sheet

Physical and Mathematical Sciences, Geological Sciences

For students entering the degree program during the 2018-2019 curricular year.

The basic degree in geology prepares graduates for professional employment in industry or government or for advanced studies in geology, business, or law.

<table>
<thead>
<tr>
<th>University Core and Graduation Requirements</th>
<th>Suggested Sequence of Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>University Core Requirements:</strong></td>
<td><strong>FRESHMAN YEAR</strong></td>
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<tr>
<td><strong>Requirements</strong></td>
<td>1st Semester</td>
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<tr>
<td><strong>#Classes</strong></td>
<td>First-year Writing</td>
</tr>
<tr>
<td><strong>Hours</strong></td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Classes</strong></td>
<td>GEOL 111 (FW)</td>
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<tr>
<td><strong>Religion Cornerstones</strong></td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Teachings and Doctrine of The Book of Mormon</strong></td>
<td>REL A 275</td>
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<tr>
<td><strong>Jesus Christ and the Everlasting Gospel</strong></td>
<td>REL A 250</td>
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<tr>
<td><strong>Foundations of the Restoration</strong></td>
<td>REL C 225</td>
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<tr>
<td><strong>The Eternal Family</strong></td>
<td>REL C 200</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td>13.0</td>
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<tr>
<td><strong>American Heritage</strong></td>
<td>3.0</td>
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<tr>
<td><strong>Religion Cornerstone course</strong></td>
<td>2.0</td>
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<tr>
<td><strong>Global and Cultural Awareness</strong></td>
<td>3-4.0</td>
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<tr>
<td><strong>First Year Writing</strong></td>
<td>4.0</td>
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<tr>
<td><strong>Advanced Written and Oral Communications</strong></td>
<td>ENGL 316*</td>
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<tr>
<td><strong>Quantitative Reasoning</strong></td>
<td>4.0</td>
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<tr>
<td><strong>Languages of Learning (Math or Language)</strong></td>
<td>STAT 121*</td>
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<tr>
<td><strong>Civilization 1</strong></td>
<td>3.0</td>
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<tr>
<td><strong>Civilization 2</strong></td>
<td>4.0</td>
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<tr>
<td><strong>Arts</strong></td>
<td>4.0</td>
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<tr>
<td><strong>Letters</strong></td>
<td>4.0</td>
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<tr>
<td><strong>Biological Science</strong></td>
<td>4.0</td>
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<tr>
<td><strong>Physical Science</strong></td>
<td>4.0</td>
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<tr>
<td><strong>Social Science</strong></td>
<td>4.0</td>
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<tr>
<td><strong>Core Enrichment: Electives</strong></td>
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<tr>
<td><strong>Religion Electives</strong></td>
<td>3.0</td>
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<tr>
<td><strong>Open Electives</strong></td>
<td>6.0</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
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</tbody>
</table>

*THESE CLASSES CAN FILL BOTH UNIVERSITY CORE AND PROGRAM REQUIREMENTS (9-14 hours overlap)*

**Graduation Requirements:**
- Minimum residence hours required: 30.0
- Minimum hours needed to graduate: 120.0

**Note:** The sequence of courses suggested may not fit the circumstances of every student. Students should contact their college advisement center for help in outlining an efficient schedule.

**Note:** Students are encouraged to complete an average of 15 credit hours each semester or 30 credit hours each year, which could include spring and/or summer terms. Taking fewer credits substantially increases the cost and the number of semesters to graduate.
BS in Geology (694022)
2018-2019 Program Requirements (74 - 75 Credit Hours)

No D credit is allowed in major courses.

REQUIREMENT 1 Complete 11 courses
- GEOL 111 - Physical Geology 4.0
- GEOL 112 - Historical Geology 4.0
- *GEOL 210 - Field Studies 3.0
- GEOL 230 - Geological Communications 3.0
- GEOL 351 - Mineralogy 4.0
- GEOL 352 - Petrology 3.0
- GEOL 370 - Sedimentology and 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

REQUIREMENT 2 Complete 2.0 hours from the following course(s) TAKE 4 TIMES.
- GEOL 491R - Geology Seminar 0.5
  You may take this course up to 4 times.

REQUIREMENT 3 Complete 4 courses
- GEOL 405 - Applied Mathematics in the Geological Sciences 3.0
- GEOL 411 - Geomorphology and Remote Sensing 3.0
- GEOL 435 - Introduction to Groundwater 3.0
- GEOL 440 - Solid Earth Geophysics 3.0
- GEOL 445 - Geochemistry 3.0
- GEOL 452 - Petrography to Petrogenesis 3.0
- GEOL 460 - Economic and Resource Geology 3.0
- GEOL 476 - Introduction to Seismic Interpretation 3.0
- GEOL 480 - Paleontology 3.0

REQUIREMENT 4 Complete 1 option
  OPTION 4.1 Complete 3 courses
  - CHEM 105 - General College Chemistry 1 with Lab (Integrated) 4.0
  - CHEM 106 - General College Chemistry 2 3.0
  - CHEM 107 - General College Chemistry Laboratory 1.0
  OPTION 4.2 Complete 2 courses
  - ENGL 316 - Technical Communication 3.0
  - CHEM 111 - Principles of Chemistry 1 4.0
  - CHEM 112 - Principles of Chemistry 2 3.0

REQUIREMENT 5 Complete 6 courses
- *ENGL 316 - Technical Communication 3.0
- 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 - Principles of Statistics 3.0

REQUIREMENT 6
All students are required to construct a portfolio of their work that includes samples of their writing, scientific data analysis, and presentations—both oral and written. The portfolio will be evaluated during the semester before graduation.

THE DISCIPLINE
Geological sciences consist of a number of disciplines aimed at understanding the Earth’s origin and development and the natural processes that have operated upon it and within it from the time of formation of the solar system. With the development of remote sensing technology and the exploration of the solar system by spacecraft, geological sciences have become increasingly important for understanding not only the Earth but the Moon, other planets and their moons, and small bodies that orbit the sun.

Understanding the dynamic processes of Earth and other planets is relevant to many societal needs, such as assessment and forecasting of natural hazards, environmental change, and discovery of energy and mineral resources. Some of the diverse disciplines that can be studied in this department include general geology, plate tectonics, volcanology, geochemistry, geophysics, paleontology, environmental geology, petroleum geology, hydrogeology, paleoclimatology, and planetary geology.

CAREER OPPORTUNITIES
Graduates have the opportunity to work both outdoors and in the laboratory, pursuing careers in energy, mineral, and water resources or in environmental evaluation with industry, government, or consulting firms. The substantial preparation in basic sciences and mathematics also leads to a broad spectrum of teaching opportunities. Some scholarship money is available for those who pursue a geological sciences degree as a pre-law track.

The most marketable terminal degree in geological sciences is the MS. Starting salaries for this degree are often very competitive with any other discipline.

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.

DEPARTMENT INFORMATION
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ADVISEMENT CENTER INFORMATION
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