Geological Sciences, BS

Program Description

The Bachelor of Science in Geological Sciences is a technical program in Earth Science. This program provides knowledge and experience through lecture, laboratory, and field courses that will equip students to solve some of the most pressing problems of our region and society as a whole. Students will develop their understanding of physical and chemical Earth processes while gaining skills in spatial reasoning and analysis of complex systems. Within active, applied, and authentic learning opportunities, students will gain insight into geologic hazards, natural resources, and Earth's history. The region that surrounds Utah Tech University provides an ideal natural laboratory to apply the concepts of geological sciences to issues that impact the future of humanity.

Professional Licensure/Certification (PLC) Requirements

The curriculum for programs at Utah Tech University leading to professional licensure are designed to prepare students for Utah licensure and certification requirements. Admission into programs for professions requiring licensure and certification does not guarantee that students will obtain a license or certificate. Licensure and certification requirements are set by agencies that are not controlled by or affiliated with the University, and licensure and certification requirements can change at any time.

Licensure boards in each state establish requirements for licensure and certification for their respective state. States vary by which professions are required to be licensed and how licensure functions, and such requirements may change at any time. The terms related to licensure and certification, among others, also vary by state as well.

Students and prospective students are strongly encouraged to contact the state licensure entity in the state where they intend to work to review all licensure and certification requirements imposed by the student’s state(s) of choice. For more information, visit the State Authorization and Professional Licensure (https://academics.dixie.edu/state-authorization/) web page and select the program, or speak to the director of the program.

Utah Tech University shall not be held liable if a student is unable to qualify for licensure or certification in any jurisdiction.

This disclosure is made pursuant to 34 CFR §668.43(a)(5)(v)(C).

Program Curriculum

120 credits

Utah Tech General Education Requirements

All Utah Tech General Education requirements must be fulfilled. A previously earned degree may fulfill those requirements, but courses must be equivalent to Utah Tech’s minimum General Education standards in American Institutions, English, and Mathematics.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td></td>
<td>General Education Core Requirements (catalog.utahtech.edu/programs/generaleducation/#gerequirementstext)</td>
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<tr>
<td>English</td>
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<td>Mathematics</td>
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<td>Life Sciences</td>
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<td>Physical Sciences</td>
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<td>Laboratory Science</td>
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<td>Fine Arts</td>
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<td>Literature/Humanities</td>
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<tr>
<td>Social &amp; Behavioral Sciences</td>
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<tr>
<td>Exploration</td>
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Geological Sciences Core Requirement

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<td>BIOL 3110</td>
<td>Scientific Writing</td>
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<td>CHEM 1210</td>
<td>Principles of Chemistry I (PS)</td>
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<td>&amp; CHEM 1215</td>
<td>and Principles of Chemistry I (LAB)</td>
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<td>Hours</td>
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<tr>
<td>CHEM 1220</td>
<td>Principles of Chemistry II and Principles of Chemistry II Lab</td>
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<tr>
<td>&amp; CHEM 1225</td>
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<tr>
<td>GEO 1110</td>
<td>Physical Geology (PS) and Physical Geology Lab (LAB)</td>
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<td>&amp; GEO 1115</td>
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<td>GEO 1220</td>
<td>Historical Geology</td>
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<td>and Historical Geology Lab</td>
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<td>GEO 2700R</td>
<td>Field Methods in Geoscience Research</td>
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<td>GEO 2990R</td>
<td>Seminar in Geology</td>
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<td>GEO 3060</td>
<td>Environmental Geology</td>
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<td>GEO 3180</td>
<td>Paleontology</td>
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<td>GEO 3200</td>
<td>Mineralogy</td>
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<td>GEO 3500</td>
<td>Geomorphology</td>
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<td>GEO 3550</td>
<td>Sedimentology &amp; Stratigraphy</td>
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<td>GEO 3600</td>
<td>Igneous and Metamorphic Petrology</td>
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<td>GEO 3700</td>
<td>Structural Geology and Tectonics</td>
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<td>GEO 3710</td>
<td>Hydrology</td>
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<td>GEO 4600</td>
<td>Field Geology</td>
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<td>GEO 4800R</td>
<td>Independent Research</td>
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<td>GEOG 3600</td>
<td>Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Laboratory</td>
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<td>Calculus II (MA)</td>
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<tr>
<td>PHYS 2210</td>
<td>Physics/Scientists Engineers I (PS)</td>
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<td>and Physics/Scientists Engineers II Lab</td>
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### Travel Course Required

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<tbody>
<tr>
<td>GEO 3000</td>
<td>Advanced Geologic Investigation of Colorado Plateau Basin and Range provinces through national parks</td>
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<td>GEO 3910</td>
<td>Applied Geologic Investigation of Iceland</td>
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<td>ENVS 3910</td>
<td>Costa Rica Natural History</td>
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<td>ENVS 3920</td>
<td>Peruvian Amazon Natural History</td>
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<td>ENVS 3930</td>
<td>South Africa Natural History</td>
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<tr>
<td>GEOG 3930</td>
<td>Remote Sensing of Landscape: China</td>
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### Graduation Requirements

1. Complete a minimum of 120 college-level credits (1000 and above).
2. Complete at least 40 upper-division credits (3000 and above).
3. Complete at least 30 upper-division credits at Utah Tech for institutional residency.
4. Cumulative GPA 2.0 or higher.
5. Grade C- or higher in all required courses.