# University Core and Graduation Requirements

## University Core Requirements:

### Religion Cornerstones

<table>
<thead>
<tr>
<th>Classes</th>
<th>Hours</th>
<th>Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachings and Doctrine of The Book of Mormon</td>
<td>1</td>
<td>REL A 275</td>
</tr>
<tr>
<td>Jesus Christ and the Everlasting Gospel</td>
<td>1</td>
<td>REL A 250</td>
</tr>
<tr>
<td>Foundations of the Restoration</td>
<td>1</td>
<td>REL C 225</td>
</tr>
<tr>
<td>The Eternal Family</td>
<td>1</td>
<td>REL C 200</td>
</tr>
</tbody>
</table>

### The Individual and Society

<table>
<thead>
<tr>
<th>Classes</th>
<th>Hours</th>
<th>Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Heritage</td>
<td>1-2</td>
<td>3-6.0 from approved list</td>
</tr>
<tr>
<td>Global and Cultural Awareness</td>
<td>1</td>
<td>3.0 from approved list</td>
</tr>
</tbody>
</table>

### Skills

<table>
<thead>
<tr>
<th>Classes</th>
<th>Hours</th>
<th>Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year Writing</td>
<td>1</td>
<td>3.0 from approved list</td>
</tr>
<tr>
<td>Advanced Written and Oral Communications</td>
<td>1</td>
<td>3.0 from approved list</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>1</td>
<td>3.0-4.0 from approved list</td>
</tr>
<tr>
<td>Languages of Learning (Math or Language)</td>
<td>Variable</td>
<td>3.0-20.0 from approved list</td>
</tr>
</tbody>
</table>

### Arts, Letters, and Sciences

<table>
<thead>
<tr>
<th>Classes</th>
<th>Hours</th>
<th>Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civilization 1</td>
<td>1</td>
<td>3.0 from approved list</td>
</tr>
<tr>
<td>Civilization 2</td>
<td>1</td>
<td>3.0 from approved list</td>
</tr>
<tr>
<td>Arts</td>
<td>1</td>
<td>3.0 from approved list</td>
</tr>
<tr>
<td>Letters</td>
<td>1</td>
<td>3.0 from approved list</td>
</tr>
<tr>
<td>Biological Science</td>
<td>1</td>
<td>3.0-4.0 from approved list</td>
</tr>
<tr>
<td>Physical Science</td>
<td>1</td>
<td>3.0 from approved list</td>
</tr>
<tr>
<td>Social Science</td>
<td>1</td>
<td>3.0 from approved list</td>
</tr>
</tbody>
</table>

### Core Enrichment: Electives

<table>
<thead>
<tr>
<th>Classes</th>
<th>Hours</th>
<th>Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion Electives</td>
<td>3-4</td>
<td>6.0 from approved list</td>
</tr>
<tr>
<td>Open Electives</td>
<td>Variable</td>
<td>Variable personal choice</td>
</tr>
</tbody>
</table>

## Graduation Requirements:

- Minimum residence hours required: 30.0
- Minimum hours needed to graduate: 120.0
### Minor in Environmental Science (285802)

#### 2017-2018 Program Requirements (17 Credit Hours)

<table>
<thead>
<tr>
<th>Requirement 1</th>
<th>Complete 2 courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environmental Science Core Courses:</strong></td>
<td></td>
</tr>
<tr>
<td>PWS 150 - Environmental Biology</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 375 - Environmental Policies and Laws</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement 2</th>
<th>Complete 6.0 hours from the following course(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PWS Supporting Core Courses:</strong></td>
<td></td>
</tr>
<tr>
<td>PWS 282 - Soil Science</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 283 - (Not currently offered)</td>
<td></td>
</tr>
<tr>
<td>PWS 305 - Soils and Water Quality</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 365 - Environmental Microbiology and Biogeochemistry</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 366 - Environmental Microbiology and Biogeochemistry Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>PWS 490 - Case Studies</td>
<td>2.0</td>
</tr>
<tr>
<td>PWS 494R - Mentored Learning Experience</td>
<td>6.0v</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement 3</th>
<th>Complete 5.0 hours from the following course(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Other and PWS Supporting Core Courses:</strong></td>
<td></td>
</tr>
<tr>
<td>BIO 220 - Biological Diversity: Animals</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 370 - Bioethics</td>
<td>2.0</td>
</tr>
<tr>
<td>BIO 441 - Entomology</td>
<td>3.0</td>
</tr>
<tr>
<td>CHEM 101 - Introductory General Chemistry</td>
<td>3.0</td>
</tr>
<tr>
<td>CHEM 105 - General College Chemistry 1 with Lab (Integrated)</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 106 - General College Chemistry 2</td>
<td>3.0</td>
</tr>
<tr>
<td>CHEM 107 - General College Chemistry Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>CHEM 223 - Quantitative and Qualitative Analysis</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 227 - Principles of Chemical Analysis</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 285 - Introductory Bio-organic Chemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 351M - Organic Chemistry 1 - Majors</td>
<td>3.0</td>
</tr>
<tr>
<td>CHEM 352M - Organic Chemistry 2 - Majors</td>
<td>3.0</td>
</tr>
<tr>
<td>CHEM 353 - Organic Chemistry Laboratory—Nonmajors</td>
<td>2.0v</td>
</tr>
<tr>
<td>CHEM 481M - Biochemistry—Majors</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON 440 - Natural Resources and Environmental Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 101 - Global Environment: Understanding Physical Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 212 - Introduction to Geographic Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 303 - Biogeography</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 305 - Geography of Landforms</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 306 - Global Conservation Designations</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 307 - Landscape Ecology</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 310 - Introduction to Urban and Regional Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 311 - Intermediate Geographic Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 331 - Economic Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 412 - Advanced Geographic Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL 101 - Introduction to Geology</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL 111 - Physical Geology</td>
<td>4.0</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 435 - Introduction to Groundwater</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 112 - Calculus 1</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 119 - Introduction to Calculus</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 302 - Mathematics for Engineering 1</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 303 - Mathematics for Engineering 2</td>
<td>4.0</td>
</tr>
<tr>
<td>MMBIO 221 - General Microbiology</td>
<td>3.0</td>
</tr>
<tr>
<td>MMBIO 240 - Molecular Biology</td>
<td>3.0</td>
</tr>
<tr>
<td>MMBIO 241 - Molecular and Cellular Biology Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>PDBIO 360 - Cell Biology</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL 205 - Introduction to Formal Logic</td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 105 - General Physics 1</td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 106 - General Physics 2</td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 107 - General Physics Lab 1</td>
<td>1.0</td>
</tr>
<tr>
<td>PHSCS 108 - General Physics Lab 2</td>
<td>1.0</td>
</tr>
<tr>
<td>PHSCS 121 - Introduction to Newtonian Mechanics</td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 123 - Introduction to Waves, Optics, and Thermodynamics</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 100 - Plants in the Environment</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 103 - Residential Landscape Design</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 215 - Principles of Range Management</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 225 - Principles of Wildlife and Fisheries Management</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 282 - Soil Science</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 283 - (Not currently offered)</td>
<td></td>
</tr>
<tr>
<td>PWS 288 - Molecular Genetics Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>PWS 303 - Soils Conservation and Resources</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 305 - Soils and Water Quality</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 306 - Soil and Water Quality Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>PWS 330 - Rangeland Plant Identification and Ecology</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 331 - Science of Plant Pest Control</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 340 - Genetics</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 355 - Rangeland Vegetation Measurements and Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 365 - Environmental Microbiology and Biogeochemistry</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 366 - Environmental Microbiology and Biogeochemistry Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>PWS 390R - Special Topics in Plant and Wildlife Sciences</td>
<td>3.0v</td>
</tr>
<tr>
<td>PWS 402 - Soils and Water in the Urban Environment</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 405 - Environmental Chemistry Laboratory</td>
<td>2.0</td>
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<tr>
<td>PWS 411 - Watershed Management</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 416 - Rangeland Improvement and Restoration</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 419 - Forest Management and Ecology</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 490 - Case Studies</td>
<td>2.0</td>
</tr>
<tr>
<td>PWS 491R - Undergraduate Seminar</td>
<td>1.0</td>
</tr>
<tr>
<td>PWS 494R - Mentored Learning Experience</td>
<td>6.0v</td>
</tr>
<tr>
<td>PWS 514 - Soil Microbiology</td>
<td>2.0</td>
</tr>
<tr>
<td>STAT 121 - Principles of Statistics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### 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

**Department of Plant and Wildlife Sciences**

Brigham Young University  
4105 Life Sciences Building  
Provo, UT 84602  
Telephone: (801) 422-3527

#### Advisement Center Information

**Life Science Student Services**  
Brigham Young University  
2060 Life Sciences Building  
Provo, UT 84602  
Telephone: (801) 422-3042  
lifesciences@byu.edu