BS in Biodiversity & Conservation (282025) MAP Sheet

Life Sciences, Biology

For students entering the degree program during the 2019-2020 curricular year.

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### University Core and Graduation Requirements

#### University Core Requirements:

<table>
<thead>
<tr>
<th>Requirements</th>
<th>#Classes</th>
<th>Hours</th>
<th>Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion Cornerstones</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachings and Doctrine of The Book of Mormon</td>
<td>1</td>
<td>2.0</td>
<td>REL A 275</td>
</tr>
<tr>
<td>Jesus Christ and the Everlasting Gospel</td>
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<td>2.0</td>
<td>REL A 250</td>
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<tr>
<td>Foundations of the Restoration</td>
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<td>2.0</td>
<td>REL C 225</td>
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<tr>
<td>The Eternal Family</td>
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<td>2.0</td>
<td>REL C 200</td>
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<td>The Individual and Society</td>
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<tr>
<td>American Heritage</td>
<td>1-2</td>
<td>3-6.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Global and Cultural Awareness</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Skills</td>
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<td></td>
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<tr>
<td>First Year Writing</td>
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<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Advanced Written and Oral Communications</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
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<td>3-4.0</td>
<td>from approved list</td>
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<tr>
<td>Languages of Learning (Math or Language)</td>
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<td>3.0</td>
<td>STAT 121</td>
</tr>
<tr>
<td>Arts, Letters, and Sciences</td>
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<tr>
<td>Civilization 1</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Civilization 2</td>
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<td>3.0</td>
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<tr>
<td>Arts</td>
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<tr>
<td>Letters</td>
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<td>3.0</td>
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<tr>
<td>Biological Science</td>
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<td>4.0</td>
<td>BIO 130*</td>
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<tr>
<td>Physical Science</td>
<td>2</td>
<td>7.0</td>
<td>CHEM 105* + PHSCS 105*</td>
</tr>
<tr>
<td>Social Science</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
</tbody>
</table>

**Core Enrichment: Electives**

| Religion Electives | 3-4 | 6.0 | from approved list |
| Open Electives     | Variable | Variable | personal choice |

*THESE CLASSES FILL BOTH UNIVERSITY CORE AND PROGRAM REQUIREMENTS (12 hours overlap)*

#### Graduation Requirements:

- Minimum residence hours required: 30.0
- Minimum hours needed to graduate: 120.0

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### Suggested Sequence of Courses

#### FRESHMAN YEAR

**1st Semester**
- First-year Writing or American Heritage: 3.0
- PHSCS 105: 3.0
- BIO 130: 4.0
- Quantitative Reasoning: 3.0
- Religion Cornerstone course: 2.0

**Total Hours:** 15.0

**2nd Semester**
- A HTG 100 or 1st Year Writing: 3.0
- Civilization 1 elective: 3.0
- CHEM 105: 4.0
- STAT 121: 3.0
- Religion Cornerstone course: 2.0

**Total Hours:** 15.0

#### SOPHOMORE YEAR

**3rd Semester**
- BIO 220: 4.0
- MMBIO 240: 3.0
- Civilization 2 elective: 3.0
- Religion cornerstone course: 2.0
- General Electives: 3.0

**Total Hours:** 15.0

**4th Semester**
- BIO 230: 4.0
- General Elective: 4.0
- Arts or Letters elective: 3.0
- Religion Cornerstone course: 2.0
- Social Science elective: 3.0

**Total Hours:** 16.0

#### JUNIOR YEAR

**5th Semester**
- Physical Sci elective: 3.0
- PWS 340: 3.0
- BIO 350: 3.0
- Religion elective: 2.0
- Adv. Written & Oral Communication elective: 3.0

**Total Hours:** 16.0

**6th Semester**
- Major Electives: 3.0
- Religion Elective: 2.0
- Biodiversity & Cons. Courses: 6.0
- Languages of Learning Elective: 4.0

**Total Hours:** 15.0

#### SENIOR YEAR

**7th Semester**
- Physical Sci elective: 3.0
- PWS 340: 3.0
- BIO 350: 3.0
- Religion elective: 2.0
- MIBIO 240: 3.0
- Biology electives: 3.0
- Biodiversity & Cons. Courses: 6.0
- Languages of Learning Elective: 4.0

**Total Hours:** 14.0

**8th Semester**
- Religion elective: 2.0
- Biology elective: 6.0
- Global & Cultural Awareness elective: 3.0
- Arts or Letters elective: 3.0

**Total Hours:** 14.0

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*Note: This degree program requires a minimum of 120.0 hours for graduation. 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 Biodiversity & Conservation (282025)  
2019-2020 Program Requirements (60 Credit Hours)

REQUIREMENT 1 Complete 11 courses
- BIO 130 - Biology 4.0
- BIO 220 - Biological Diversity: Animals 4.0
- BIO 230 - Biological Diversity: Plants 4.0
- BIO 350 - Ecology 3.0
- BIO 420 - Evolutionary Biology 4.0
- BIO 450 - Capstone in Biodiversity and Conservation 3.0
- CHEM 105 - General Chemistry I 3.0
- PWS 440 - Lichenology 3.0
- PWS 446 - Plant Physiology 3.0
- PHIL 212R - (Not currently offered) 3.0

REQUIREMENT 2 Complete 2.0 hours from the following course(s)
COMPLETE AT LEAST 2.0 CREDIT HOURS. MORE MAY BE TAKEN IF DESIRED  
BUT WILL NOT COUNT TOWARD THE MAJOR CREDITS.
- BIO 194 - Introduction to Mentored Research 0.5
- BIO 494R - Mentored Research 6.0v

REQUIREMENT 3 Complete 11.0 hours from the following course(s)
BIODIVERSITY AND CONSERVATION COURSES:
- BIO 235 - Field Botany 3.0
- BIO 430 - Plant Classification and Identification 4.0
- BIO 441 - Entomology 3.0
- BIO 443 - Ichthyology 3.0
- BIO 445 - Herpetology 4.0
- BIO 447 - Mammalogy 3.0
- BIO 452 - Marine Biology 4.0
- BIO 455 - Plant Ecology 3.0
- BIO 520 - Symbiosis 3.0
- PWS 446 - Ornithology 3.0

REQUIREMENT 4 Complete 9.0 hours from the following course(s)
ELECTIVE COURSES - COMPLETE AT LEAST 9.0 HOURS. (NOTE: EITHER BIO 370 OR PHIL 212R CAN BE USED TO PARTIALLY FULFILL THIS REQUIREMENT, BUT NOT BOTH.)
- BIO 165 - Introduction to Bioinformatics 3.0
- BIO 316 - Advanced Scientific Writing and Communication 3.0
- BIO 370 - Bioethics 2.0
- BIO 380 - Comparative Animal Physiology and Anatomy 4.0
- BIO 470 - History and Philosophy of Biology 3.0
- BIO 510 - Biological Systematics and Curation 3.0

REQUIREMENT 5 Complete an exit interview.

THE DISCIPLINE
We all depend on the diversity of life for personal and societal survival. We need all forms of life for the beauty it holds, the food it gives, the life-saving drugs it provides, the clean water we use, or any number of other valid and important reasons. The services that healthy ecosystems perform, if only from our human perspective, are immense and irreplaceable.

Conservation Biology deals with identification, protection, maintenance, development, and restoration of the earth’s biological diversity (biodiversity), including genetic diversity within species, species richness in different regions, and the diversity of ecological communities. This focus differs substantially from traditional wildlife management and forestry-range programs in two fundamental ways: (1) it seeks to protect all life on earth; and (2) it seeks to preserve biological processes (ecological and evolutionary interactions) that generate and maintain biodiversity over the long-term. Our program offers a large number of natural history courses (botany, mammalogy, entomology, etc.) and includes courses relevant to policy, management, ethical, and socioeconomic factors.

SUPPORTING MINORS
Students majoring in conservation biology should consider completing a minor to strengthen their technical or applied sociological skills. Possible minors in anthropology, geography (geography; geographic information systems; urban and environmental planning), international development, management (global management), political science, recreation management and youth leadership (nonprofit management), sociology, global women’s studies.

RESEARCH OPPORTUNITIES
Students in this program conduct research projects with professors in many departments and with expertise at all scales of modern conservation biology. Projects range from those focusing on genetic variation within key species of concern to inventorying species, communities, and ecosystems locally, regionally, and around the world. Others carefully examine interactions between species and their environments. Our students provide scientific information to aid government and private institutions in making decisions of how best to maintain, develop, and restore biodiversity resources at all these levels, while others work to improve biological science education curricula in local public schools. We have great museum and data-basing resources, and links with communities worldwide to gather, store, and use information on distribution of many kinds of living organisms. Many students choose to study conservation biology simply for the intrinsic joy and beauty it brings to their lives. Our students participate in all these efforts.

INTERNSHIPS, CO-OP, ED, PRACTICAL EDUCATION:
Common experiences for our students include participating in extended field trips with faculty, assisting with long-term research and museum curation or education projects, participating in international exchange programs, working as volunteer interns and performing community outreach education. Many of our students planning on medical and dental careers use these opportunities to enhance their knowledge of key conservation issues and involvement in programs combining the “natural” world with their interests in human health and well-being. As a result of participation in research projects, many students present papers or posters with faculty sponsors at scientific meetings, and co-author papers in peer-reviewed journals.

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 Biology