### UNIVERSITY CORE AND GRADUATION REQUIREMENTS

#### UNIVERSITY CORE REQUIREMENTS

<table>
<thead>
<tr>
<th>Requirements</th>
<th>#Classes</th>
<th>Hours</th>
<th>Classes</th>
</tr>
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<tbody>
<tr>
<td><strong>Doctrinal Foundation</strong></td>
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<tr>
<td>Book of Mormon</td>
<td>1</td>
<td>4.0</td>
<td>Rel A 121 and 122</td>
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<tr>
<td>New Testament</td>
<td>1</td>
<td>2.0</td>
<td>Rel A 211 or 212</td>
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<tr>
<td>Doctrine and Covenants</td>
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<td>2.0</td>
<td>Rel C 324 or 325</td>
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<tr>
<td><strong>The Individual and Society</strong></td>
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<tr>
<td>Citizenship</td>
<td>1–2</td>
<td>3–6.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Global &amp; Cultural Awareness</td>
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<td>3.0</td>
<td>from approved list</td>
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<td><strong>Skills</strong></td>
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<td>Effective Communication</td>
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<td>First-Year Writing</td>
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<td>Adv Written &amp; Oral Communication</td>
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<tr>
<td>Quantitative Reasoning</td>
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<td>0–3.0</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 recommended</td>
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<tr>
<td><strong>Arts, Letters, and Sciences</strong></td>
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<td></td>
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<tr>
<td>Civilization 1 and 2</td>
<td>2</td>
<td>6.0</td>
<td>from approved list</td>
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<tr>
<td>Arts</td>
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<td>3.0</td>
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<tr>
<td>Letters</td>
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<td>Scientific Principles &amp; Reasoning</td>
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<td>Biological Science</td>
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<td>Physical Science</td>
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<td>6.0</td>
<td>Chem 101, Geol 101</td>
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<tr>
<td>Social Science</td>
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<td>Econ 110 recommended</td>
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<td><strong>Core Enrichment: Electives</strong></td>
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<tr>
<td>Religion Electives</td>
<td>3–4</td>
<td>6.0</td>
<td>from approved list</td>
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<tr>
<td>Open Electives</td>
<td>Variable</td>
<td>Variable</td>
<td>personal choice</td>
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</tbody>
</table>

#### Core Enrichment: Electives

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Religion Electives</td>
<td></td>
</tr>
<tr>
<td>Open Electives</td>
<td>Variable</td>
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</tbody>
</table>

#### GRADUATION REQUIREMENTS:

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

### MAJOR REQUIREMENTS (65.0 total hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>NDFS 330</td>
<td>Comparative Animal Nutrition</td>
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</tr>
<tr>
<td>PWS 100</td>
<td>Living with Plants</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 115</td>
<td>Intro to Wildlife and Wildlands Conservation</td>
<td>1.0</td>
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<tr>
<td>PWS 215</td>
<td>Principles of Range Management</td>
<td>3.0</td>
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<tr>
<td>PWS 225</td>
<td>Principles of Wildlife and Fisheries Mgt</td>
<td>3.0</td>
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<tr>
<td>PWS 275</td>
<td>Genetics and Reproduction</td>
<td>3.0</td>
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<tr>
<td>PWS 282</td>
<td>Intro to Soil Science</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 283</td>
<td>Intro to Soil Science Laboratory</td>
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<tr>
<td>PWS 330</td>
<td>Rangeland Plant Identification &amp; Ecology</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 344</td>
<td>Natural History of Wildlife</td>
<td>3.0</td>
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<tr>
<td>PWS 350</td>
<td>Rangeland Ecology</td>
<td>3.0</td>
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<tr>
<td>PWS 355</td>
<td>Rangeland Vegetation Msrnts &amp; Analysis</td>
<td>3.0</td>
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<tr>
<td>PWS 357</td>
<td>Tech. For Wildlife Investigations &amp; Mgt.</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 375</td>
<td>Environmental Policies and Laws</td>
<td>2.0</td>
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<tr>
<td>PWS 416</td>
<td>Rangeland Vegetation Improvement</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 417</td>
<td>Rangeland Planning and GIS</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 446</td>
<td>Ornithology</td>
<td>3.0</td>
</tr>
<tr>
<td>PWS 492</td>
<td>Wildlife &amp; Wildlands Conserv Senior Seminar</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Complete the following:**

With the help of your advisor, select courses to qualify for 2-3 federal job series (wildlife biologist, ecologist, range conservationist, GIS specialist, soil conservationist, botanist, fisheries biologist):

- Bio 220A Biological Diversity: Animals
- Bio 220B Biological Diversity: Plants
- Bio 270 Animal Restraint
- Bio 352 Introduction to Marine Biology
- Bio 380 Comparative Animal Physiology and Anatomy
- Bio 420 Evolutionary Biology
- Bio 430 Plant Classification
- Bio 441 Entomology
- Bio 442 Advanced Invertebrate Zoology
- Bio 443 Ichthyology
- Bio 445 Herpetology
- Bio 447 Mammalogy
- Bio 450 Conservation Biology
- Bio 452 Marine Ecology
- Bio 453 Development of Marine Animals
- Bio 525 Animal Disease, Biosecurity, and Zoonoses
- Bio 541 Aquatic Entomology
- Bio 556 Limnology
- Bio 557 Stream and Wetland Ecology
- Geog 211 Map Use and Interpretation
- PWS 270 Animal Husbandry
- PWS 301 Plant Growth and Reproduction
- PWS 303 Soils Conservation and Resources
- PWS 325 Fisheries and Wetlands Management
- PWS 411 Watershed Management
- PWS 413 Safety Certifications for Field Biologists
- PWS 419 Forest Management and Ecology
- PWS 424 Wildlife Law Enforcement
- PWS 440 Plant Physiology
- PWS 511 Soil & Plant Water Relations
- PWS 512 Rangeland Landscape Ecology & GIS
- PWS 547 Ungulate Conservation & Mgt
- PWS 553 Restoration Ecology
- PWS 554 Wildlife Behavioral Ecology

**Recommended Courses for Preprofessional Track:**

These recommended preprofessional courses can be used to satisfy the elective credits above.

- Chem 105, 106, 107, 351, 352, 353.
- PDBio 120.
- Phscs 105, 106, 107, 108.
- PDBio 306 or 362 or Bio 380.

**GIS Applications**

Students interested in GIS applications should consider a minor in geographic information systems (20–23 hours). See the Geography Department for details.

To complete the following:

- Required courses overlap by 3.0 hours.

For University Core Questions: Contact the Advisement Center.

*These classes fill both University Core and Major Requirements (3.0 hours overlap)*
BS in WILDLIFE AND WILDLANDS CONSERVATION (282023)  
2012–2013

### Suggested Sequence of Courses:

#### FRESHMAN YEAR
1st Semester

- Arts or Letters elective 3.0
- Phy S 100 (FWSpSu) 3.0
- First-Year Writing 3.0
- or A Htg 100
- PWS 115 (F) 1.0
- Quantitative Reasoning (if needed) 3.0
- Rel A 121 (FWSpSu) 2.0

**Total Hours 15.0**

2nd Semester

- A Htg 100 3.0
- or First-Year Writing
- Bio 220A (FW) 4.0
- Civilization 1 elective 3.0
- PWS 100 (FW) 3.0
- Rel A 122 (FWSpSu) 2.0

**Total Hours 15.0**

#### SOPHOMORE YEAR
3rd Semester

- PWS 282 (FWSp) 3.0
- PWS 283 (FWSp) 1.0
- PWS 350 (F) 3.0
- Major elective 3.0
- Lang. of Learning (recommend: Stat 221) 3.0
- Rel A 211 or 212 (FWSpSu) 2.0

**Total Hours 15.0**

4th Semester

- Biological Science elective 3.0
- PWS 215 (W) 3.0
- PWS 330 (W) 3.0
- PWS 225 (W) 3.0
- PWS 275 (W) 3.0
- Religion elective 2.0

**Total Hours 17.0**

#### JUNIOR YEAR
5th Semester*

- PWS 355 (F) 3.0
- PWS 344 3.0
- Major electives 3.0
- Rel C 324 or 325 (FWSpSu) 2.0
- PWS 357 3.0
- Global & Cultural Awareness elective 3.0

**Total Hours 17.0**

6th Semester

- PWS 375 3.0
- Advanced Written & Oral Communication 3.0
- Major electives 3.0
- Civilization 2 elective 3.0
- Religion elective (FWSpSu) 2.0

**Total Hours 14.0**

#### SENIOR YEAR
7th Semester*

- PWS 416 (F) 3.0
- Major electives 6.0
- Arts or Letters elective 3.0
- General elective 1.0

**Total Hours 13.0**

8th Semester

- PWS 417 3.0
- PWS 446 (W) 3.0
- NDFS 330 (W) 3.0
- PWS 492 (W) 1.0
- Social Science elective (Econ 110 recommended) 3.0
- Religion electives (FWSpSu) 2.0

**Total Hours 15.0**

#### THE DISCIPLINE:

The wildlife and wildlands conservation major provides the widest range of employment opportunities in the applied ecological fields of wildlife and rangeland resources management. Prescribed courses meet foundation requirements for a wildlife biologist, range conservationist, botanist, and zoologist, as listed in the Federal Register. Graduating students qualify to work for federal and state wildlife and natural resource agencies. Opportunities exist for those with advanced degrees to work as consultants or to be employed with private companies concerned with natural resource management.

#### RESEARCH OPPORTUNITIES:

Undergraduates can volunteer to participate in various field and laboratory research projects with faculty and graduate students. Students are often hired to help with research projects and may work part time while in school and full time in the summer months.

#### INTERNSHIPS, CO-OP ED, PRACTICAL EXPERIENCE:

Numerous opportunities exist for students to gain experience and establish working relationships with federal and state natural resource agencies as well as private organizations. Many agencies will hire students full time during the summer. Students often find permanent employment and opportunities for graduate research by participating in these programs.

#### HONORARY SOCIETIES AND CLUBS:

Students are encouraged to become associated with the BYU Wildlife and Range Club, which represents the Wildlife Society for Range Management. The club assists students in attending state and national meetings of these professional societies.

#### CAREER SELECTIONS:

Recreation Officer – Supervisor of parks, sanitary control, public conferences, talks and tours.


Wildlife Conservation Officer – Collect biological data on wildlife. Monitor availability and condition of wildlife. Enforce game laws, investigate violations of game laws. Public relations include speaking to school and civic groups about game laws, availability of game, conservation, etc.


Others – Include Botanist, Zoologist.

(See faculty advisor for additional career choices.)

#### FINANCING:

Students in this major may apply for university, college, and departmental scholarships. A limited number of research or teaching assistant positions for undergraduate students also exist.

*Note: This degree program requires a minimum of 123.0 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.*

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**Department of Plant and Wildlife Sciences**  
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