

# BS in Wildlife & Wildlands Conservation (282023) MAP Sheet

Life Sciences, Plant and Wildlife Sciences

For students entering the degree program during the 2017-2018 curricular year.



University Core and Graduation Requirements				Suggested Sequence of Courses			
<b>University Core Requirements:</b>				<b>FRESHMAN YEAR</b>			
<b>Requirements</b>	<b>#Classes</b>	<b>Hours</b>	<b>Classes</b>	<u>1st Semester</u>		<b>JUNIOR YEAR</b>	
<b>Religion Cornerstones</b>				Arts or Letters	3.0	<u>5th Semester</u>	
Teachings and Doctrine of The Book of Mormon	1	2.0	REL A 275	Physical Science	3.0	PWS 344	3.0
Jesus Christ and the Everlasting Gospel	1	2.0	REL A 250	First-Year Writing or A HTG 100	3.0	PWS 355	3.0
Foundations of the Restoration	1	2.0	REL C 225	PWS 115	1.0	PWS 357	3.0
The Eternal Family	1	2.0	REL C 200	Quantitative Reasoning (if needed)	3.0	First-Year Writing or A HTG 100	3.0
<b>The Individual and Society</b>				Religion Cornerstone course	2.0	Major elective	3.0
American Heritage	1-2	3-6.0	from approved list	<b>Total Hours</b>	<b>15.0</b>	Religion elective	2.0
Global and Cultural Awareness	1	3.0	from approved list	<u>2nd Semester</u>		<b>Total Hours</b>	<b>17.0</b>
<b>Skills</b>				First-Year Writing or A HTG 100	3.0	<u>6th Semester</u>	
First Year Writing	1	3.0	from approved list	Major elective	3.0	PWS 375	3.0
Advanced Written and Oral Communications	1	3.0	ENGL 316 recommended	Civilization 1	3.0	Advanced Written & Oral Communication	3.0
Quantitative Reasoning	0-1	0-3.0	from approved list	PWS 100	3.0	Major elective	3.0
Languages of Learning (Math or Language)	1	3.0	STAT 121 recommended	PWS 113	1.0	Civilization 2	3.0
<b>Arts, Letters, and Sciences</b>				Religion Cornerstone course	2.0	Religion elective	2.0
Civilization 1	2	3.0	from approved list	<b>Total Hours</b>	<b>15.0</b>	<b>Total Hours</b>	<b>14.0</b>
Civilization 2	1	3.0	from approved list	<b>SOPHOMORE YEAR</b>		<u>7th Semester</u>	
Arts	1	3.0	from approved list	<u>3rd Semester</u>		PWS 416	3.0
Letters	1	3.0	from approved list	PWS 282	3.0	Arts or Letters	3.0
Biological Science	1	3.0	PWS 100*	PWS 283	1.0	Global & Cultural Awareness	3.0
Physical Science	2	6.0	CHEM 101, GEOL 101 recommended	PWS 350	3.0	Major elective	1.0
Social Science	1	3.0	ECON 110 recommended	Major elective	3.0	General elective	3.0
<b>Core Enrichment: Electives</b>				Lang. of Learning (recommend: STAT 121)	3.0	BIO 447	3.0
Religion Electives	3-4	6.0	from approved list	Religion Cornerstone course	2.0	<b>Total Hours</b>	<b>16.0</b>
Open Electives	Variable	Variable	personal choice	<b>Total Hours</b>	<b>15.0</b>	<u>8th Semester</u>	
<b>Graduation Requirements:</b>				<u>4th Semester</u>		PWS 335	3.0
Minimum residence hours required		30.0		PWS 215	3.0	PWS 417	3.0
Minimum hours needed to graduate		120.0		PWS 330	3.0	PWS 446	3.0
				PWS 225	3.0	PWS 492	1.0
				PWS 275	3.0	Social Science	3.0
				Religion Cornerstone course	2.0	Religion elective	2.0
				<b>Total Hours</b>	<b>14.0</b>	<b>Total Hours</b>	<b>15.0</b>

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

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**2017-2018 Program Requirements (67 Credit Hours)**

<p><b>REQUIREMENT 1</b> Complete 20 courses</p> <p>BIO 447 - Mammalogy 3.0</p> <p>*PWS 100 - Plants in the Environment 3.0</p> <p>PWS 113 - Safety Certifications for Field Biologists 1.0</p> <p>PWS 115 - Introduction to Wildlife and Wildlands Conservation 1.0</p> <p>PWS 215 - Principles of Range Management 3.0</p> <p>PWS 225 - Principles of Wildlife and Fisheries Management 3.0</p> <p>PWS 275 - Genetics and Reproduction 3.0</p> <p>PWS 282 - Soil Science 3.0</p> <p>PWS 283 - (Not currently offered)</p> <p>PWS 330 - Rangeland Plant Identification and Ecology 3.0</p> <p>PWS 335 - Comparative Animal Nutrition 3.0</p> <p>PWS 344 - Natural History of Wildlife 3.0</p> <p>PWS 350 - Rangeland Ecology 3.0</p> <p>PWS 355 - Rangeland Vegetation Measurements and Analysis 3.0</p> <p>PWS 357 - Techniques for Wildlife Investigations and Management 3.0</p> <p>PWS 375 - Environmental Policies and Laws 3.0</p> <p>PWS 416 - Rangeland Improvement and Restoration 3.0</p> <p>PWS 417 - Rangeland Planning and GIS 3.0</p> <p>BIO 446 - (Bio - PWS) Ornithology 3.0</p> <p>PWS 492 - Wildlife and Wildlands Conservation Senior Seminar 1.0</p>	<p>BIO 557 - Stream and Wetland Ecology 4.0</p> <p>GEOG 211 - Map Use and Interpretation 4.0</p> <p>GEOG 212 - Introduction to Geographic Information Systems 3.0</p> <p>GEOG 306 - Global Conservation Designations 3.0</p> <p>GEOG 412 - Advanced Geographic Information Systems 3.0</p> <p>PDBIO 382 - Developmental Biology 3.0</p> <p>PWS 270 - Animal Husbandry 3.0</p> <p>PWS 301 - Plant Growth and Reproduction 3.0</p> <p>PWS 303 - Soils Conservation and Resources 3.0</p> <p>PWS 315 - Conflict Resolution Management 1.0</p> <p>PWS 324 - Wildlife Law Enforcement 3.0</p> <p>PWS 325 - Fisheries and Wetlands Management 3.0</p> <p>PWS 411 - Watershed Management 3.0</p> <p>PWS 419 - Forest Management and Ecology 3.0</p> <p>PWS 440 - Plant Physiology 3.0</p> <p>PWS 511 - Environmental Biophysics: Soil and Plant Water Relations 4.0</p> <p>PWS 512 - Rangeland Landscape Ecology and Geographic Information Sys 3.0</p> <p>PWS 547 - Ungulate Conservation and Management 2.0</p> <p>PWS 553 - Restoration Ecology 3.0</p> <p>PWS 554 - Wildlife Behavioral Ecology 3.0</p>	<p><b>THE DISCIPLINE:</b></p> <p>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.</p> <p><b>RESEARCH OPPORTUNITIES:</b></p> <p>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</p>
<p><b>REQUIREMENT 2</b> Complete 15.0 hours from the following course(s)</p> <p><b>COMPLETE 15 ELECTIVE CREDIT HOURS FROM THE FOLLOWING COURSE LIST. 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):</b></p> <p>BIO 220 - Biological Diversity: Animals 4.0</p> <p>BIO 230 - Biological Diversity: Plants 4.0</p> <p>BIO 235 - Field Botany 3.0</p> <p>BIO 270 - Animal Restraint 1.0</p> <p>BIO 380 - Comparative Animal Physiology and Anatomy 4.0</p> <p>BIO 420 - Evolutionary Biology 2.0</p> <p>BIO 430 - Plant Classification and Identification 4.0</p> <p>BIO 441 - Entomology 3.0</p> <p>BIO 443 - Ichthyology 3.0</p> <p>BIO 445 - Herpetology 4.0</p> <p>BIO 450 - Conservation Biology 3.0</p> <p>BIO 452 - Marine Biology 4.0</p> <p>BIO 525 - Animal Disease, Biosecurity, and Zoonoses 3.0</p> <p>BIO 541 - Aquatic Entomology 4.0</p> <p>BIO 556 - Limnology 3.0</p>	<p><b>RECOMMENDED</b> Complete 10 courses</p> <p><b>RECOMMENDED COURSES FOR PREPROFESSIONAL TRACK. THESE RECOMMENDED PREPROFESSIONAL COURSES CAN BE USED TO SATISFY THE ELECTIVE CREDITS ABOVE.</b></p> <p>CHEM 105 - General College Chemistry 1 with Lab (Integrated) 4.0</p> <p>CHEM 106 - General College Chemistry 2 3.0</p> <p>CHEM 107 - General College Chemistry Laboratory 1.0</p> <p>CHEM 351 - Organic Chemistry 1 3.0</p> <p>CHEM 352 - Organic Chemistry 2 3.0</p> <p>CHEM 353 - Organic Chemistry Laboratory--Nonmajors 2.0v</p> <p>PDBIO 120 - Science of Biology 3.0</p> <p>PHSCS 105 - General Physics 1 3.0</p> <p>PHSCS 106 - General Physics 2 3.0</p> <p>PHSCS 107 - General Physics Lab 1 1.0</p> <p>PHSCS 108 - General Physics Lab 2 1.0</p> <p><b>RECOMMENDED</b> Complete 1 course</p> <p><b>ONE OF THE FOLLOWING COURSES IS RECOMMENDED:</b></p> <p>BIO 380 - Comparative Animal Physiology and Anatomy 4.0</p> <p>PDBIO 305 - Human Physiology 4.0</p> <p>PDBIO 362 - Advanced Physiology 3.0</p> <p><i>Students interested in GIS applications should consider a minor in geographic information systems (20-23 hours). See the Geography Department for details.</i></p>	<p><b>INTERNSHIPS, CO-OP ED, PRACTICAL EXPERIENCE:</b></p> <p>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.</p> <p><b>HONORARY SOCIETIES AND CLUBS:</b></p> <p>Students are encouraged to become associated with the BYU Wildlife and Range Club, which represents the Wildlife Society and the Society for Range Management. The club assists students in attending state and national meetings of these professional societies</p> <p><b>CAREER SELECTIONS:</b></p> <p><i>Recreation Officer</i> – Supervisor of parks, public conferences, talks and tours.</p> <p><i>Wildlife Biologists</i> – Habitat management and development, operational planning. Public relations. Waterfowl and game refuge</p>

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2017-2018

development and management. Management of endangered species. Administration. Environmental impact studies. 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.

*Range Conservationist* – Managing natural resources of rangelands. Oversight of livestock grazing. Wildlife management. Evaluation of mineral leases. Regulation and evaluation of recreation. Develop cooperative relationships with range users. Research new methods and techniques. Environmental impact analysis.

*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.

### **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) 422-2760

### **ADVISEMENT CENTER INFORMATION**

### **Life Science Student Services**

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