



BS in WILDLIFE AND WILDLANDS CONSERVATION (282023) MAP Sheet

Department of Plant and Wildlife Sciences

For students entering the degree program during the 2016–2017 curricular year.

UNIVERSITY CORE AND GRADUATION REQUIREMENTS				MAJOR REQUIREMENTS (67 total hours)			
UNIVERSITY CORE REQUIREMENTS				Complete the following:			
<u>Requirements</u>	<u>#Classes</u>	<u>Hours</u>	<u>Classes</u>	Bio 447 Mammology	3.0	Geog 212 Intro to Geographic Info Systems	3.0
Religion Cornerstones				PWS 100 Living with Plants	3.0	Geog 306 Public Land Conservation	3.0
Teachings & Doctrine, Book of Mormon	1	2.0	Rel A 275	PWS 113 Safety Certifications for Field Biologists	1.0	Geog 412 Advanced GIS	3.0
Jesus Christ & the Everlasting Gospel	1	2.0	Rel A 250	PWS 115 Intro to Wildlife and Wildlands Conservation	1.0	PDBio 482 Developmental Biology	3.0
Foundations of the Restoration	1	2.0	Rel C 225	PWS 215 Principles of Range Management	3.0	PWS 270 Animal Husbandry	3.0
The Eternal Family	1	2.0	Rel C 200	PWS 225 Principles of Wildlife and Fisheries Mgt	3.0	PWS 301 Plant Growth and Reproduction	3.0
The Individual and Society				PWS 275 Genetics and Reproduction	3.0	PWS 303 Soils Conservation and Resources	3.0
Citizenship				PWS 282 Intro to Soil Science	3.0	PWS 315 Conflict Resolution Management	1.0
American Heritage	1–2	3–6.0	from approved list	PWS 283 Intro to Soil Science Laboratory	1.0	PWS 324 Wildlife Law Enforcement	3.0
Global & Cultural Awareness	1	3.0	from approved list	PWS 330 Rangeland Plant Identification & Ecology	3.0	PWS 325 Fisheries and Wetlands Management	3.0
Skills				PWS 335 Comparative Animal Nutrition	3.0	PWS 411 Watershed Management	3.0
Effective Communication				PWS 344 Natural History of Wildlife	3.0	PWS 419 Forest Management and Ecology	3.0
First-Year Writing	1	3.0	from approved list	PWS 350 Rangeland Ecology	3.0	PWS 440 Plant Physiology	3.0
Adv Written & Oral Communication	1	3.0	Engl 316 recommended	PWS 355 Rangeland Vegetatn Msrmnts & Analysis	3.0	PWS 511 Environmental Biophysics: Soil & Plant Water Relations	4.0
Quantitative Reasoning	0–1	0–3.0	from approved list	PWS 357 Tech. For Wildlife Investigations & Mgt.	3.0	PWS 512 Rangeland Landscape Ecology & GIS	3.0
Languages of Learning (Math or Language)	1	3.0	Stat 121 recommended	PWS 375 Environmental Policies and Laws	3.0	PWS 547 Ungulate Conservation & Mgt	2.0
Arts, Letters, and Sciences				PWS 416 Rangeland Vegetation Improvement	3.0	PWS 553 Restoration Ecology	3.0
Civilization 1 and 2				PWS 417 Rangeland Planning and GIS	3.0	PWS 554 Wildlife Behavioral Ecology	3.0
Arts	1	3.0	from approved list	PWS 446 Ornithology	3.0	Recommended Courses for Preprofessional Track:	
Letters	1	3.0	from approved list	PWS 492 Wildlife & Wildlands Consvr Senior Seminar	1.0	These recommended preprofessional courses can be used to satisfy the elective credits above.	
Scientific Principles & Reasoning				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, or fisheries biologist):			
Biological Science	1–2	3–5.0	from approved list	Bio 220 Biological Diversity: Animals	4.0	Chem 105, 106, 107, 351, 352, 353.	
Physical Science	2	6.0	Chem 101, Geol 101 recommended	Bio 230 Biological Diversity: Plants	4.0	Phscs 105, 106, 107, 108.	
Social Science	1	3.0	Econ 110 recommended	Bio 235 Field Botany	3.0	PDBio 120; 305 or 362 or Bio 380.	
Core Enrichment: Electives				Bio 270 Animal Restraint	1.0	GIS Applications	
Religion Electives	3–4	6.0	from approved list	Bio 380 Comparative Animal Physiology and Anatomy	2.0	Students interested in GIS applications should consider a minor in geographic information systems (20–23 hours). See the Geography Department for details.	
Open Electives	Variable	Variable	personal choice	Bio 420 Evolutionary Biology	4.0		
GRADUATION REQUIREMENTS:				Bio 430 Plant Classification & Identification	3.0		
Minimum residence hours required		30.0		Bio 441 Entomology	5.0		
Minimum hours needed to graduate		120.0		Bio 442 Advanced Invertebrate Zoology	3.0		
				Bio 443 Ichthyology	4.0		
				Bio 445 Herpetology	3.0		
				Bio 450 Conservation Biology	4.0		
				Bio 452 Marine Ecology	3.0		
				Bio 525 Animal Disease, Biosecurity, and Zoonoses	4.0		
				Bio 541 Aquatic Entomology	3.0		
				Bio 556 Limnology	4.0		
				Bio 557 Stream and Wetland Ecology	4.0		
				Geog 211 Map Use and Interpretation	4.0		
				(continued in next column)			

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2016–2017**

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
Religion Cornerstone course	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
Religion Cornerstone course	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
Religion Cornerstone course	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 Cornerstone course	2.0
Total Hours	17.0

JUNIOR YEAR

5th Semester*

PWS 355 (F)	3.0
PWS 344	3.0
Major electives	3.0
Religion elective	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 elective (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 and the 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, public conferences, talks and tours.

Wildlife Biologists – Habitat management and development, operational planning. Public relations. Waterfowl and game refuge 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.

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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