

MAJOR IN FISH, WILDLIFE, AND CONSERVATION BIOLOGY, CONSERVATION BIOLOGY CONCENTRATION

natural resource courses used to meet graduation requirements for the fish, wildlife, and conservation biology major. The minimum applies to courses taken as substitutions for meeting these requirements.

Requirements Effective Spring 2023

A minimum grade of C (2.000) is required in all biological, mathematical/statistical, physical science, fish, wildlife, and conservation biology and

Freshman

		AUCC	Credits
CO 150	College Composition (GT-CO2)	1A	3
FW 104	Wildlife Ecology and Conservation (GT-SC2)	3A	3
FW 179	New-to-the-Major Seminar		1
Select one group from the following:			8
Group A:			
BZ 110	Principles of Animal Biology (GT-SC2)	3A	
BZ 111	Animal Biology Laboratory (GT-SC1)	3A	
BZ 120	Principles of Plant Biology (GT-SC1)	3A	
Group B:			
LIFE 102 ¹	Attributes of Living Systems (GT-SC1)	3A	
LIFE 103 ¹	Biology of Organisms-Animals and Plants (GT-SC1)	3A	
Select one set of chemistry and physics courses from the following:			13-15
Group A:			
CHEM 107	Fundamentals of Chemistry (GT-SC2)	3A	
CHEM 108	Fundamentals of Chemistry Laboratory (GT-SC1)	3A	
PH 121	General Physics I (GT-SC1)	3A	
PH 122	General Physics II (GT-SC1)	3A	
Group B:			
CHEM 111	General Chemistry I (GT-SC2)	3A	
CHEM 112	General Chemistry Lab I (GT-SC1)	3A	
CHEM 113	General Chemistry II		
CHEM 114	General Chemistry Lab II		
PH 110	Physics of Everyday Phenomena (GT-SC2)	3A	
PH 111	Physics of Everyday Phenomena Laboratory (GT-SC1)	3A	
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)			3

Total Credits

31-33

Sophomore

CHEM 245	Fundamentals of Organic Chemistry		4
CHEM 246	Fundamentals of Organic Chemistry Laboratory		1
FW 260	Principles of Wildlife Management		3
LIFE 320	Ecology		3
Select one course from the following:			3-4
BZ 220	Introduction to Evolution		
BZ 346 ²	Population and Evolutionary Genetics		
BZ 350	Molecular and General Genetics		

SOCR 330	Principles of Genetics			
Select one course from the following:				3
HONR 499 ³	Senior Honors Thesis			
SPCM 200 ³	Public Speaking			
Select one course from the following:				4
MATH 155	Calculus for Biological Scientists I (GT-MA1)	1B		
MATH 160	Calculus for Physical Scientists I (GT-MA1)	1B		
Select one course from the following:				3
STAT 301	Introduction to Applied Statistical Methods			
STAT 307	Introduction to Biostatistics			
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)		3B		3
Social and Behavioral Sciences (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#social-behavioral-sciences)		3C		3
Total Credits				30-31
Summer				
NR 220	Natural Resource Ecology and Measurements			5
Total Credits				5
Junior				
FW 370	Design of Fish and Wildlife Projects	4A,4B		3
Select one group from the following:				4
Group A:				
BSPM 302	Applied and General Entomology			
BSPM 303A	Entomology Laboratory: General			
Group B:				
BSPM 445	Aquatic Insects			
Group C:				
BZ 212	Animal Biology-Invertebrates			
Select two courses or course pair for 6-7 credits not taken elsewhere from the following:				6-7
BZ 214	Animal Biology-Vertebrates			
BZ 329	Herpetology			
BZ 330	Mammalogy			
BZ 335	Ornithology			
FW 300 & FW 301 ⁴	Biology and Diversity of Fishes			
Select one Plant Biology course from the following:				3-4
BZ 223	Plant Identification			
BZ 325	Plant Systematics			
BZ 332	Introductory Phycology			
BZ 450	Plant Ecology			
F 310/RS 310	Forest and Rangeland Ecogeography			
F 311	Forest Ecology			
Select one course from the following:				3
CO 300	Writing Arguments (GT-CO3)	2		
CO 301A	Writing in the Disciplines: Arts and Humanities (GT-CO3)	2		
CO 301B	Writing in the Disciplines: Sciences (GT-CO3)	2		
CO 301C	Writing in the Disciplines: Social Sciences (GT-CO3)	2		
CO 301D	Writing in the Disciplines: Education (GT-CO3)	2		
JTC 300	Strategic Writing and Communication (GT-CO3)	2		
Select one course from the following:				3-4
FW 310	Mapping Diverse Perspectives in Conservation			
NR 319	Geospatial Applications in Natural Resources			

Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion)	1C	3
Historical Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)	3D	3

Total Credits **28-31**

Senior

Select one Aquatic Biology course or course pair not taken elsewhere from the following: 3-4

- BSPM 445 Aquatic Insects
- BZ 415 Marine Biology
- BZ 471 Stream Biology and Ecology
- & BZ 472
- ESS 474 Limnology
- FW 300 Biology and Diversity of Fishes
- & FW 301
- FW 304 Conservation of Marine Megafauna
- FW 400 Conservation of Fish in Aquatic Ecosystems
- FW 401 Fishery Science
- FW 402 Fish Culture
- FW 405 Fish Physiology
- FW 430 Waterfowl Ecology and Management
- FW 568/BZ 568 Sustaining River Ecosystems in Changing World

Select one Wildlife Course not taken elsewhere from the following: 3-4

- FW 304 Conservation of Marine Megafauna
- FW 310 Mapping Diverse Perspectives in Conservation
- FW 375 Field Wildlife Studies
- FW 430 Waterfowl Ecology and Management
- FW 455 Principles of Conservation Biology
- FW 465 Managing Human-Wildlife Conflicts
- FW 467 Wildlife Disease Ecology
- FW 468 Bird Ecology and Conservation
- FW 469 Conservation and Management of Large Mammals
- FW 471 Wildlife Data Collection and Analysis 4C
- FW 472 Issues in Animal Conservation and Management
- FW 475 Conservation Decision Making
- FW 477 Wildlife Habitat Use and Management
- FW 544 Ecotoxicology
- FW 573 Travel Abroad-Wildlife Ecology/Conservation
- FW *** Travel Abroad upper-division course⁵

Select one course from the following: 3-4

- FW 401 Fishery Science 4C
- FW 471 Wildlife Data Collection and Analysis 4C

Select one course from the following: 3

- FW 455 Principles of Conservation Biology
- FW 472 Issues in Animal Conservation and Management

Select two Human Dimensions courses not taken elsewhere from the following: 6

- FW 310 Mapping Diverse Perspectives in Conservation
- FW 472 Issues in Animal Conservation and Management
- HIST 355² American Environmental History
- NR 320 Natural Resources History and Policy
- NR 400 Public Communication in Natural Resources
- NRRT 330 Social Aspects of Natural Resource Management
- NRRT 400² Environmental Governance

NRRT 440 ²	Applications in Environmental Communication	
PHIL 320	Ethics of Sustainability	
PHIL 345	Environmental Ethics	
POLS 361	U.S. Environmental Politics and Policy	
SOC 320	Population-Natural Resources and Environment	
SOC 322	Environmental Justice	
SOC 460	Environmental and Natural Resource Sociology	
SOC 461	Water and Social Justice	
Guided Electives ⁶		6
Elective ⁷		0-1
Total Credits		24-27
Program Total Credits:		120

¹ Students taking this biology selection should choose a botany-related course in the department elective options to meet the botany/plant course requirements for certain federal positions related to wildlife, fisheries, and/or conservation biology.

² Students may need to obtain a registration override from the appropriate department to take this course.

³ Students in the Honors Track 1 program must take HONR 499.

⁴ FW 300 and FW 301 count together as one selection in this choice.

⁵ Restricted to FW subject code, department travel abroad courses, taught by FWCB faculty. No transfer or substitute courses will be accepted.

⁶ Guided electives are courses intended to expand a student's depth and breadth in wildlife biology and include any 300- or 400-level regular course with a BC, BMS, BSPM, BZ, CHEM, ESS, F, FW, GES, MATH, MIP, NR, NRRT, PH, RS, SOCR, STAT, or WR subject code (excluding courses ending in -80 to -99); SOCR 240; other courses with prior approval by department and advisor. Courses may not double-count as Guided Electives and for other requirements in the major.

⁷ Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).