

MAJOR IN FISH, WILDLIFE, AND CONSERVATION BIOLOGY, FISHERIES AND AQUATIC SCIENCES CONCENTRATION

and 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. Students choosing the Fisheries and Aquatic Sciences concentration are also required to complete at least 80 clock hours in an internship experience related to fishery and aquatic biology.

Requirements Effective Fall 2024

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

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 group 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	
Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion)			3

Total Credits

31-33

Sophomore

FW 204	Introduction to Fishery Biology		3
FW 260	Principles of Wildlife Management		3
LIFE 320	Ecology		3
STAT 301 or 307	Introduction to Applied Statistical Methods Introduction to Biostatistics		3
Select one course from the following:			3-4
BZ 220	Introduction to Evolution		
BZ 350	Molecular and General Genetics		

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SOCR 330	Principles of Genetics			
Select one course from the following:				3
HONR 499 ²	Senior Honors Thesis			
SPCM 200 ²	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		
Social and Behavioral Sciences (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#social-behavioral-sciences)			3C	3
Total Credits				25-26
Summer				
NR 220	Natural Resource Ecology and Measurements			5
Total Credits				5
Junior				
FW 300	Biology and Diversity of Fishes			2
FW 301	Ichthyology Laboratory			1
FW 370	Design of Fish and Wildlife Projects	4A,4B		3
FW 487 ³	Internship			1
Select one group from the following:				4-7
Group A:				
BSPM 302	Applied and General Entomology			
BSPM 303A	Entomology Laboratory: General			
Group B:				
BZ 212	Animal Biology-Invertebrates			
NR 312	Applied Insect Ecology			
Select one course from the following:				3-4
BZ 214	Animal Biology-Vertebrates			
BZ 329	Herpetology			
BZ 330	Mammalogy			
BZ 335	Ornithology			
Select one Plant Biology course from the following:				3-4
BZ 223	Plant Identification			
BZ 325	Plant Systematics			
BZ 450	Plant Ecology			
F 311	Forest Ecology			
RS 300	Rangeland Conservation and Stewardship			
RS 313/F 313	Dendrology and Herbaceous Plant ID			
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 four credits from the following: ⁴				4
FW 325	Spatial Ecology--Applications with R			
GEOL 120	Geology and Society (GT-SC2)	3A		
GEOL 121	Experiential Geoscience Laboratory (GT-SC1)	3A		
GEOL 122	Geoscience--Climate and Environmental Change (GT-SC2)	3A		
GEOL 124	Geology of Natural Resources (GT-SC2)	3A		
GEOL 150	Physical Geology for Scientists and Engineers	3A		

GR 204/WR 204	Sustainable Watersheds (GT-SC2)	3A	
NR 319	Introduction to Geospatial Science		
SOCR 240	Introductory Soil Science		
Historical Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)		3D	3
Total Credits			27-32
Senior			
FW 401	Fishery Science	4C	3
Select one group not taken elsewhere from the following:			3-4
Group A:			
BZ 471	Stream Biology and Ecology		
BZ 472	Stream Biology and Ecology Laboratory		
Group B:			
ESS 474	Limnology		
Group C:			
FW 430	Waterfowl Ecology and Management		
Group D:			
FW 568/BZ 568	Sustaining River Ecosystems in Changing World		
Group E:			
NR 370	Coastal Environmental Ecology		
Select two courses from the following:			6-7
FW 400 ¹	Conservation of Fish in Aquatic Ecosystems		
FW 402	Fish Culture		
FW 405	Fish Physiology		
Select one Human Dimensions course not taken elsewhere from the following:			3
FW 310	Mapping Diverse Perspectives in Conservation		
FW 472	Issues in Animal Conservation and Management		
HIST 355 ⁵	American Environmental History		
NR 320	Natural Resources History and Policy		
NR 400	Public Communication in Natural Resources		
NRRT 320	International Issues-Recreation and Tourism		
NRRT 330	Social Aspects of Natural Resource Management		
NRRT 400 ⁵	Environmental Governance		
NRRT 440 ⁵	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		
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)		3B	6
Guided Electives ⁶			3
Electives ⁷			0-3
Total Credits			24-28
Program Total Credits:			120

¹ Students taking this biology selection should choose a botany-related course in the department elective options to meet botany/plant course

requirements for certain federal positions related to wildlife, fisheries, and/or conservation biology.
² Students in the Honors Track 1 program must take HONR 499.

- ³ Take 1 credit of FW 487 during the semester in which you are completing the 80 h work experience requirement.
- ⁴ Students selecting GR 204/WR 204 only need select three credits. Students selecting one of the geosciences lecture courses (GEOL 120, GEOL 122, GEOL 124) also need to take GEOL 121.
- ⁵ Students will need to obtain a registration override from the appropriate department to take this course.
- 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); CHEM 245; CHEM 246; 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 120, of which at least 42 must be upper-division (300- to 400-level).