



University of Idaho

Department of Fish
and Wildlife Sciences

Conservation Biology

Recommended 4-Year Plan

Conserve Biodiversity

The Bachelor of Science in Conservation Biology focuses on understanding threats to biodiversity-such as habitat loss, over-harvest, or invasive species-and providing managers and policy makers with a clear, defensible options for alleviating these threats. Students in this degree might assess the impact of declining genetic diversity in endangered mountain gorillas or evaluate strategies for minimizing conflict between humans and expanding grizzly bear populations in the American West. In all cases, the goal is to promote biodiversity conservation through a science-based, open and fair evaluation of ecological processes and our role within ecosystems as humans. Coursework is interdisciplinary with an interdisciplinary grounding in ecology, organismal biology, and social sciences. The degree is research-driven, culminating in a guided, hands-on senior thesis experience. Graduates in this degree are university professors, research specialists with organizations like the Nature Conservancy or government agencies, environmental lawyers, and consultants in the private sector.

FRESHMAN

FALL

COURSE		CREDITS
BIOL 1140-Organisms & Environments	Science	4
ENGL 1101*-Writing & Rhetoric I	Writ Comm	3
MATH 143-College Algebra	Math	4
NR 1010-Exploring Natural Resources		2
Free Elective	Humanities	3

TOTAL 15

SPRING

COURSE		CREDITS
CHEM 1101/1101L-Intro to Chemistry & Lab OR CHEM 1111/1111L-Principles of Chemistry & Lab (CHEM 1101, MATH 1143, 1160, or 1170, sufficient test score)	Science	4
COMM 1101-Fundamentals of Oral Communication		3
NR 2000-Seminar		1
ENGL 1102*-Writing & Rhetoric II (ENGL 1101)	Writ Comm	3
MATH 1160-Survey of Calculus OR MATH 1170-Calculus I	Math	4

TOTAL 15

SOPHOMORE

FALL

COURSE	CREDITS
BIOL 1150/1150L-Cells & the Evolution of Life & Lab (CHEM 101 or 111)	4
WLF 2200/FOR 2100-Principles of Ecology OR NR 3210-Ecology (BIOL 1020/1020L, 1140, 1150 or PLSC 2050) (Spring Only) OR BIOL 3140-Ecology & Population Biology	3
FOR 2350-Society & Natural Resources	3
STAT 2510*-Statistical Methods (MATH 1080, 1143, 1160, or 1170; or sufficient score)	3
Humanistic & Artistic Ways of Knowing	3

TOTAL 16

SPRING

COURSE	CREDITS
BIOL 2130-Principles of Biological Structure & Function (BIOL 1140 or 1150/1150L)	4
GENE 3140-General Genetics (BIOL 1150 or 1154) OR BIOL 3100-Genetics (BIOL 1150 or 2550)	3
FOR/NRS 3700-Intro to Spatial Analysis for NR Mgmt (College algebra)	3
ECON 2202*-Principles of Microeconomics OR ECON 2720-Foundations of Economic Analysis	3-4
NR 3000-Ecology and Conservation Biology Thesis Seminar	1

TOTAL 14-15

CONSERVATION BIOLOGY

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JUNIOR

FALL

COURSE	CREDITS
WLF 3700 -Management and Communication of Scientific Data OR ENGL 3170 -Technical Writing (ENGL 1102 or Soph standing) OR JAMM 3280 -Science Writing	3
WLF 4400* -Conservation Biology (FOR/REM 2210, REM 2210 or BIOL 3140)	3
FOR 2110 -Forest Biology & Dendrology (BIOL 1140 or PLSC 2050) OR REM 3410 -Systemic Botany (BIOL 1150 & 2130 or PLSC 2050) (Spring Only)	3
PHIL 4520 -Environmental Philosophy	3
Restricted Elective- Quantitative Resource Analysis	3

TOTAL 15

SPRING

COURSE	CREDITS
BIOL 4210 -Advanced Evolution/Population Dynamics (BIOL 3100, 3140, FOR/REM 2210, or WLF 2200)	3
NRS 3830 -NR & Ecosystem Service Economics (NRS 2350, MATH 1143, & ECON 2202 or 2720)	3
WLF 4480 -Fish and Wildlife Population Ecology (STAT 2510 & MATH 1160 or 1170)	4
Restricted Elective -Ecology	3
Restricted Elective: Social/Political Science	3

TOTAL 16

SENIOR

FALL

COURSE	CREDITS
FISH/FOR/NR/REM/WLF 4970 -Senior Thesis OR FISH/FOR/NRS/REM/WLF 4850 -Senior Project	1-3
International Course	3
American Experience Requirement	3
Restricted Elective -Organismal Biology	3
Restricted Elective -Resource Management	3

TOTAL 15

SPRING

COURSE	CREDITS
FISH/FOR/NRS/REM/WLF 4730 -Senior Project Presentation	1
REM 4290 -Landscape Ecology (FOR/REM 2210 or WLF 2200)	3
Restricted Elective -Social/Political Science	3
Restricted Elective -Ecology	3
Free Elective	3
Humanistic & Artistic Ways of Knowing	3

TOTAL 16

RESTRICTED ELECTIVES:

QUANTITATIVE RESOURCE ANALYSIS - CHOOSE ONE COURSE:

ANTH 4170 -Social Data Analysis (3 cr)
FOR/NRS 4720 -Remote Sensing of the Environment (4 cr)
GEOG 385* -GIS Primer (3 cr)
NRS 3100 -Social Research Methods in Conservation (4 cr)
REM 4100* -Principles of Vegetation Measurement and Assessment (2 cr)
AND WLF 4110+ -Wildland Habitat Ecology and Assessment (2 cr)
STAT 4220 -Sample Survey Methods (3 cr)
STAT 4310 -Statistical Analysis (3 cr)

ECOLOGY - CHOOSE SIX CREDITS WITH AT LEAST 2 CREDITS FROM FISH 3150, 4150, 4300; REM 4600; AND/OR WLF 3150.

BIOL 4780 -Animal Behavior (3 cr)
ENT 4690 -Introduction to Forest Insects (2 cr)
FISH 3140 -Fish Ecology (3 cr)
FISH 3150 -Fish Ecology Field Techniques and Methods (2 cr)
FISH 4150* -Limnology (4 cr)
FISH 4300 -Riparian Ecology and Management (3 cr)
FISH 4500 -Ecology and Conservation of Freshwater Invertebrates (2 cr)
FISH 4510 -Freshwater Invertebrate Field Methods (2 cr)
FIRE 3326* -Fire Ecology and Management (3 cr)
FOR 4600 -Watershed Science and Management (3 cr)
GEOG 4100 -Biogeography (3 cr)
GEOG 4300 -Climate Change Ecology (3 cr)
PLSC 4100 -Invasive Plant Biology (3 cr)
REM/NRS 4400 -Wildland Restoration Ecology (3 cr)
REM 4590* -Rangeland Ecology (3 cr)
REM 4600 -Integrating GIS and Field Studies in Rangelands (2 cr)
WLF 3140 -Ecology of Terrestrial Vertebrates (3 cr)
WLF 3150 -Wildlife Techniques Laboratory (2 cr)

RESOURCE MANAGEMENT - CHOOSE ONE COURSE:

FISH 4180 -Fisheries Management (4 cr)
FOR 4100 -Fire Effects and Management (3 cr)
FOR 4400 -Silvicultural Principles and Practices (4 cr)
FOR 4600 -Watershed Science and Management (3 cr)
NRS/ENVS 3860 -Managing Complex Environmental Systems (3 cr)
NRS 4760 -Environmental Project Management and Decision Making (4 cr)
NRS 4900 -Wilderness and Protected Area Management (3 cr)
PLSC 4190 -Plant Community Restoration Methods (2 cr)
REM 4560* -Integrated Rangeland Management (3 cr)
REM 4800 -Ecological Restoration (3 cr)
WLF 4920 -Wildlife Management (4 cr)

SOCIAL/POLITICAL SCIENCE: CHOOSE TWO COURSES

AIST 4450 -Indigenous Ways of Knowing (3 cr)
COMM 4100* -Conflict Management (3 cr)
ENVS 2250 -International Environmental Issues Seminar (3 cr)
ENVS 4360 -Principles of Sustainability (3 cr)
FOR 4310* -Forest Policy and Admin (2 cr)
GEOG 4200 -Land, Resources, and Environment (3 cr)
HIST 4240 -American Environmental History (3 cr)
IS 3220 -International Environmental Governance (3 cr)
NRS 3110 -Public Involvement in Natural Resource Management (3 cr)
NRS/POLS 3640 -Politics of the Environment (3 cr)
NRS/ENVS 3860 -Managing Complex Environmental Systems (3 cr)
NRS 3870 -Environmental Communication Skills (3 cr)
NRS/POLS 4620 -Natural Resource Policy (3 cr)
SOC 4650 -Environmental Justice (3 cr)

ORGANISMAL BIOLOGY - CHOOSE ONE COURSE:

BIOL 4830 -Mammalogy (3 cr)
BIOL 4890 -Herpetology (4 cr)
FISH 4810 -Ichthyology (3 cr)
WLF 4820 -Ornithology (4 cr)

- This academic plan is intended as a guideline only and does not replace academic advising.
- 120 credits minimum are required for a B.S. Ecology & Conservation Biology.
- Minimum of 36 upper-division credits required to graduate.
- See course catalog and department website for complete degree requirements and additional information.

* -Both Online & In-Person options are offered

+ -Offered Online Only

2025/2026

Students pursuing a B.S. Cons. Bio. must receive a grade of 'C' or better in each of the following 4 indicator courses to register in upper division NRS/FISH/FOR/REM/WLF: BIOL 1140, BIOL 2130, WLF 2200 or NR 3210, or FOR 2210, & STAT 2510.

Student must achieve a 'C' or better to graduate in the following core courses: BIOL 4210, NR 2000, PHIL 4520, REM 4290, WLF 4400, and WLF 4480.

Ready to Get Started?

Email cnradvising@uidaho.edu



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