



University of Idaho

Department of Fish and Wildlife Sciences

Conservation Biology

Recommended 4-Year Plan | 2022/2023

Conserve Biodiversity

The Bachelor of Science in Conservation Biology option 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 ex-panding 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 114 - Organisms & Environments	Science	4
ENGL 101* - Writing & Rhetoric I	Writ Comm	3
MATH 143 - College Algebra	Math	3
NR 101 - Exploring Natural Resources		2
General Education Requirement	Humanities	3

TOTAL 15

SPRING

COURSE		CREDITS
CHEM 101/101L - Intro to Chemistry & Lab OR CHEM 111/111L - Principles of Chemistry & Lab <small>(CHEM 101, MATH 143, 160, or 170, sufficient test score)</small>	Science	4
COMM 101 - Fundamentals of Oral Communication		3
General Education Requirement	Humanities	3
ENGL 102* - Writing & Rhetoric II <small>(ENGL 101)</small>	Writ Comm	3
MATH 160 - Survey of Calculus OR MATH 170 - Calculus I	Math	4

TOTAL 17

SOPHOMORE

FALL

COURSE		CREDITS
BIOL 115/115L - Cells & the Evolution of Life & Lab <small>(CHEM 101 or 111)</small>		4
FOR/REM 221 OR WLF 220 - Principles of Ecology <small>(BIOL 102/102L, 114, 115 or PLSC 205)</small>		3
OR BIOL 314 - Ecology & Population Biology <small>(BIOL 114 or 115, STAT 251 or 301, and MATH 160 or 170)</small>		3
FOR 235 - Society & Natural Resources		3
STAT 251* - Statistical Methods <small>(MATH 108, 143, 160, or 170; or sufficient score)</small>		3
NRS 200 - ECB Seminar		1

TOTAL 14

SPRING

COURSE		CREDITS
BIOL 213 - Principles of Biological Structure & Function <small>(BIOL 114 or 115/115L)</small>		4
GENE 314 - General Genetics <small>(BIOL 115 or 154)</small> OR BIOL 310 - Genetics <small>(BIOL 115 or 250)</small>		3
FOR/NRS 375 - Fundamental Geomatics <small>(College algebra)</small>		3
ECON 202* - Principles of Microeconomics OR ECON 272 - Foundations of Economic Analysis		3-4
ENGL 317 - Technical Writing <small>(ENGL 102 or Soph standing)</small> OR WLF 370 - Management & Communication of Scientific Data OR JAMM 328 - Science Writing		3

TOTAL 16-17

CONSERVATION BIOLOGY

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JUNIOR

FALL

COURSE	CREDITS
NR 300 - ECB Thesis Seminar	1
WLF 440* - Conservation Biology (FOR/REM 221, REM 220 or BIOL 314)	3
FOR 220 - Forest Biology & Dendrology (BIOL 114 or PLSC 205) OR REM 341 - Systemic Botany (BIOL 115 & 213 or PLSC 205)	3
PHIL 452 - Environmental Philosophy	3
Restrictive Elective	Ecology 3

TOTAL 13

SPRING

COURSE	CREDITS
BIOL 421 - Advanced Evolution/Population Dynamics	3
NRS 383 - NR & Ecosystem Service Economics (NRS 235, MATH 143, & ECON 202 or 272)	3
WLF 448 - Fish and Wildlife Population Ecology (STAT 251 & MATH 160 or 170)	4
Restrictive Elective	Quantitative Resource Analysis 3
Restrictive Elective	Social/Political Science 3

TOTAL 16

SENIOR

FALL

COURSE	CREDITS
FISH/FOR/NR/REM/WLF 497 - Senior Thesis OR FISH/FOR/NRS/REM/WLF 485 - Senior Project	1-3
International Course	3
American Diversity	3
Restrictive Elective	Organismal Biology 3
Restrictive Elective	Resource Management 3

TOTAL 15

SPRING

COURSE	CREDITS
FISH/FOR/NRS/REM/WLF 473 - Senior Project Presentation	1
REM 429 - Landscape Ecology (FOR/REM 221 or WLF 220)	3
Restrictive Elective	Social/Political Science 3
Restrictive Elective	Ecology 3
Free Elective	3
General Education Requirement	3

TOTAL 16

RESTRICTED ELECTIVES:

QUANTITATIVE RESOURCE ANALYSIS - CHOOSE ONE COURSE:

ANTH 417 - Social Data Analysis (3 cr)
 FOR/NRS 472 - Remote Sensing of the Environment (4 cr)
 GEOG 385* - GIS Primer (3 cr)
 NRS 310 - Social Research Methods in Conservation (4 cr)
 REM 410* - Principles of Vegetation Measurement and Assessment (2 cr)
AND WLF 411+ - Wildland Habitat Ecology and Assessment (2 cr)
 STAT 422 - Sample Survey Methods (3 cr)
 STAT 431 - Statistical Analysis (3 cr)

RESOURCE MANAGEMENT - CHOOSE ONE COURSE:

FISH 418 - Fisheries Management (4 cr)
 FOR 410 - Fire Effects and Management (3 cr)
 FOR 424 - Silvicultural Principles and Practices (4 cr)
 FOR 462 - Watershed Science and Management (3 cr)
 NRS 386 - Managing Complex Environmental Systems (3 cr)
 NRS 476 - Environmental Project Management and Decision Making (4 cr)
 NRS 490 - Wilderness and Protected Area Management (3 cr)
 PLSC 419 - Plant Community Restoration Methods (2 cr)
 REM 456* - Integrated Rangeland Management (3 cr)
 REM 480 - Ecological Restoration (3 cr)
 WLF 492 - Wildlife Management (4 cr)

ECOLOGY - CHOOSE SIX CREDITS WITH AT LEAST 2 CREDITS FROM FISH 315, 415, 430, 451; REM 460; AND/OR WLF 315.

BIOL 478 - Animal Behavior (3 cr)
 ENT 469 - Introduction to Forest Insects (2 cr)
 FISH 314 - Fish Ecology (3 cr)
 FISH 315 - Fish Ecology Field Techniques and Methods (2 cr)
 FISH 415* - Limnology (4 cr)
 FISH 430 - Riparian Ecology and Management (3 cr)
 FISH 450 - Ecology & Conservation of Freshwater Invertebrates (2 cr)
 FISH 451 - Freshwater Invertebrate Field Method (2 cr)
 FOR 326* - Fire Ecology and Management (3 cr)
 FOR 330 - Terrestrial Ecosystem Ecology (4 cr)
 GEOG 410 - Biogeography (3 cr)
 GEO 430 - Climate Change Ecology (3 cr)
 PLSC 410 - Invasive Plant Biology (3 cr)
 REM 440 - Restoration Ecology (3 cr)
 REM 459* - Rangeland Ecology (3 cr)
 REM 460 - Integrating GIS and Field Studies in Rangelands (2 cr)
 WLF 314 - Ecology of Terrestrial Vertebrates (3 cr)
 WLF 315 - Wildlife Techniques Laboratory (2 cr)

SOCIAL/POLITICAL SCIENCE - CHOOSE TWO COURSES:

AIST 344 - Indigenous Ways of Knowing (3 cr)
 COMM 410* - Conflict Management (3 cr)
 ENVS 225 - International Environmental Issues Seminar (3 cr)
 ENVS 436 - Principles of Sustainability (3 cr)
 FOR 310 - Indigenous Culture and Ecology (3 cr)
 FOR 484* - Forest Policy and Admin (2 cr)
 GEOG 420 - Land, Resources, and Environment (3 cr)
 HIST 424 - American Environmental History (3 cr)
 IS 322 - International Environmental Governance (3 cr)
 NRS 311 - Public Involvement in Natural Resource Management (3 cr)
 NRS/POLS 364 - Politics of the Environment (3 cr)
 NRS/ENVS 386 - Managing Complex Environmental Systems (3 cr)
 NRS 387 - Environmental Communication Skills (3 cr)
 NRS/POLS 462 - Nature Resource Policy (3 cr)
 SOC 465 - Environmental Justice (3 cr)

ORGANISMAL BIOLOGY - CHOOSE ONE COURSE:

BIOL 483 - Mammalogy (3 cr)
 BIOL 489 - Herpetology (4 cr)
 FISH 481 - Ichthyology (3 cr)
 WLF 482 - Ornithology (3 cr)

*The program requires 120 credits. Students pursuing a B.S.Cons.Biol. must receive a grade of 'C' or better in each of the following 4 indicator courses to register in upper division courses in NRS/FISH/FOR/REM/WLF: BIOL 114, BIOL 213, FOR 221 or WLF 220, NR 321, and STAT 251.

Students must achieve a 'C' or better to graduate in the following seven core courses: BIOL 421, NR 200, PHIL 452, REM 429, WLF 440, and WLF 448.

- This academic plan is intended as a guideline only and does not replace academic advising.
- 120 credits minimum are required for a B.S. 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
- + - Online only offered

Ready to Get Started?

Email cnradvising@uidaho.edu

