University of Idaho
Department of Fish and Wildlife Sciences

Ecology & Conservation Biology
Natural Resource Ecology

Recommended 4-Year Plan | 2021/2022

Natural Resource Ecology Option

The Bachelor of Science in Ecology and Conservation Biology: Natural Resource Ecology option focuses on understanding biodiversity- the interconnectedness of life across scales from the genetics to landscapes. Students in this degree work to understand basic ecological processes like predation and parasitism, energy transfer across food webs, climate induced migration, or gene flow. They learn how living organisms are interconnected with each other, with their inorganic environment, and with human beings. Students learn within an interdisciplinary framework, taking coursework across multiple natural resource disciplines. The degree is strongly grounded in research, culminating in a guided, hands-on senior thesis experience. Graduates are equipped to be leaders in ecological research, providing cutting edge, critical insights into our changing biosphere. They work in academia, for government agencies like the U.S. Geological Survey, or as researchers for non-governmental organizations like Conservation International.

FRESHMAN

FALL

COURSE		CREDITS
CHEM 101/101L - Intro to Chemistry & Lab **OR** CHEM 111/111L - Principles of Chemistry & Lab (CHEM 101, MATH 143, 160, or 170, sufficient test score)	Science	4
COMM 101 - Fundamentals of Oral Communication		2
ENGL 102* - Writing & Rhetoric I (ENGL 101)	Writ Comm	3
MATH 160 - Survey of Calculus (MATH 143) **OR** MATH 170 - Analytic Geometry & Calculus I (MATH 143 & 144)		4
NR 101 - Exploring Natural Resources		2

TOTAL 15

SPRING

COURSE		CREDITS
BIOL 114 - Organisms & Environments	Science	4
NRS 235 - Society & Natural Resources	Social Sci	3
PHYS 100/100L - Fundamentals of Physics & Lab **OR** PHYS 111 - General Physics I (MATH 143)		4
General Education Requirement	Humanities	3
General Education Requirement		3

TOTAL 17

SOPHOMORE

FALL

COURSE	CREDITS
BIOL 115/115L - Cells & the Evolution of Life & Lab (CHEM 101 or 111)	4
ECON 202* - Principles of Microeconomics **OR** ECON 272 - Foundations of Economic Analysis	3-4
NR 200 - ECB Seminar	1
SOIL 205/206 - The Soil Ecosystem & Lab (CHEM 101 or 111)	4
General Education Requirement	3

TOTAL 15-16

SPRING

COURSE	CREDITS
BIOL 213 - Principles of Biological Structure & Function (BIOL 115)	4
FOR/NRS 375 - Intro to Spatial Analysis for NR Mgmt (College algebra)	3
FOR/REM 221 OR WLF 220 - Principles of Ecology (BIOL 102/102L, 114, 115 or PLSC 205) **OR** BIOL 314 - Ecology & Population Biology (BIOL 114 or 115, STAT 251 or 301, and MATH 160 or 170)	3-4
STAT 251* - Statistical Methods (MATH 108, 143, 160, or 170; or sufficient score)	3
Restrictive Elective	3

TOTAL 14

University of Idaho | College of Natural Resources
875 Perimeter Drive MS 1136 | Moscow, ID 83844 | 208-885-6434

ECB: NATURAL RESOURCE ECOLOGY

Recommended 4-Year Plan | 2021/2022

JUNIOR

FALL

COURSE	CREDITS
ENGL 317 - Technical Writing (ENGL 102 or Soph standing) **OR** WLF 370 - Management & Communication of Scientific Data	3
FOR 220 - Forest Biology & Dendrology (BIOL 114 or PLSC 205) **OR** REM 341 - Systemic Botany (BIOL 115 & 213 or PLSC 205)	3
NR 300 - ECB Thesis Seminar	1
Restrictive Elective	3
Restrictive Elective	4

TOTAL 14

SPRING

COURSE		CREDITS
NRS 383 - NR & Ecosystem Service Economics (NRS 235, MATH 143, & ECON 202 or 272)		3
FISH/FOR/NR/REM/WLF 497 - Senior Thesis **OR** FISH/FOR/NRS/REM/WLF 485 - Senior Project		1-3
FOR 330 - Terrestrial Ecosystem Ecology (MATH 143 or 160, PHYS 100 or 111, FOR/REM 221 or WLF 220)		4
WLF 448 - Fish and Wildlife Population Ecology (STAT 251 & MATH 160 or 170)		4
General Education Requirement	International	3

TOTAL 15-17

SENIOR

FALL

COURSE	CREDITS
FISH/FOR/NR/REM/WLF 497 - Senior Thesis **OR** FISH/FOR/NRS/REM/WLF 485 - Senior Project	1-3
General Education Requirement	4
Restrictive Elective	3
Restrictive Elective	3
Free Elective	3

TOTAL 14-16

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	3
Restrictive Elective	3
Free Elective	3
Free Elective	3

TOTAL 16

RESTRICTED ELECTIVES:

QUANTITATIVE RESOURCE ANALYSIS - CHOOSE ONE COURSE:

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 (2cr) **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 424 - Silvicultural Principles and Practices (4 cr)
FOR 462 - Watershed Science and Management (3cr)
NRS/ENVS 386 – Managing Complex Environmental Systems (3 cr)
NRS 490 - Wilderness and Protected Area Management (3 cr)
NRS 496 - Monitoring Impacts in Protected Areas and Wilderness (3 cr)
REM 456* - Integrated Rangeland Management (3 cr)
WLF 492 - Wildlife Management (4 cr)

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

BIOL 421 - Advanced Evolution/Population Dynamics (3 cr)
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 (1 cr)
FISH 415* - Limnology (4 cr)
FISH 430 - Riparian Ecology and Management (3 cr)
FOR 326* - Fire Ecology and Management (3 cr)
FOR 468 - Forest and Plant Pathology (2 cr)
GEOG 410 - Biogeography (3 cr)
PLSC 410 - Invasive Plant Biology (3 cr)
REM/NRS 440 - Wildland 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)
WLF 440* - Conservation Biology (3 cr)

SOCIAL/POLITICAL SCIENCE - CHOOSE ONE COURSE:

COMM 410* - Conflict Management (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)
NRS 311 - Public Involvement in Natural Resource Management (3 cr)
NRS/POLS 364 - Politics of the Environment (3 cr)
NRS 387 - Environmental Communication Skills (3 cr)
NRS/POLS 462 - Nature Resource Policy (3 cr)
NRS/LAS 493 - International Land Preservation and Conservation (3 cr)
PHIL 452* - Environmental Philosophy Systems (3 cr)
WLF 205 - Wildlife Law Enforcement (3 cr)

University of Idaho
Department of Fish and Wildlife Sciences

Ready to Get Started?
Email cnradvising@uidaho.edu

- 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
\+ - Online only offered