Name:_____

ID #_____

Oregon State University Cascades

2023-2024 Fish & Wildlife Natural Resources Checklist

Students who graduate with a BS degree in Natural Resources from Oregon State University will learn to integrate technical field or laboratory skills with analytical skills to solve critical natural resource problems. The curriculum is designed to help students acquire knowledge about a range of natural resource issues, work in interdisciplinary teams, and deal with social and political aspects of resource management.

Students will acquire knowledge in biophysical sciences, social sciences, math and statistics. They will learn holistic resource management approaches that emphasize the interconnectedness of humans and the environment. In addition, students will develop a toolbox of resource management skills such as communication, collaboration, analysis, assessment and planning. They will explore the conservation and management of key resources which include fish and wildlife, land and water resources, and a wide range of ecosystems from forests to rangelands. A disciplinary depth in a focused area is developed through a required specialization option. Students may choose from a number of pre-approved options, or create an individualized (student designed) specialization option.

A specialization "option" is a *required* part of the Natural Resources major that allows the students to develop depth and focus in a particular area of natural resource management. All specialization options are required to have a minimum of 37 credits with at least 20 upper division (300-400 level) courses included.

Natural Resources Requirements:

- OSU Graduation Requirements
- Baccalaureate Core
- Natural Resource Major Requirements
- Specialization Option: *minimum of 37 credits with at least 20 upper division (300-400 level) courses*
- The Natural Resources Specialization Option will have a minimum GPA requirement of 2.25.
- Only two courses used to complete the Natural Resources major requirements may be taken S/U

OSU Graduation Requirements:

Students pursuing a degree at OSU must meet the following requirements in addition to program and college requirements.

- 180—total number of credits required to graduate from OSU
- 60—number of upper division credits required (300-400 level courses)
- 45 of last 75 credits must be OSU credits
- Maintain a 2.0 or better university GPA

Checklist only lists OSU-Cascades Courses

Baccalaureate Core https://catalog.oregonstate.edu/earning-degrees/bcc/			
Skills		Fulfilled	Grade
Lifetime Fitness (2)	HHS 231: Lifetime Fitness for Health		
Physical Activity Course (1)	PAC 1xx		
Mathematics (4)	**Fulfilled by Major**		
Writing I (4)	WR 121Z: English Composition		
Writing II (3)	Visit Bacc Core Link Above		
Speech (3)	Visit Bacc Core Link Above		
Perspectives: No more than two courses from any one subject area may be used to fulfill the Perspectives requirement.			
Cultural Diversity (3-4)	Visit Bacc Core Link Above		
Literature & Arts (3-4)	Visit Bacc Core Link Above		
Social Processes & Institutions (4)	**Fulfilled by Major (Econ 201)**		
Western Culture (3-4)	Visit Bacc Core Link Above		
Physical Science (4)	**Fulfilled by Major**		
Biological Science (4)	**Fulfilled by Major**		
Additional Physical or Bio Science (4)	**Fulfilled by Major**		
Difference Power and Discrimination (3)			
Difference Power and Discrimination	**GEOG 333 if selected for Ethics and Philosophy**		
Synthesis: The two courses used to fulfill the Synthesis requirement may not be in the same department			
Contemporary Global Issues (3-4)	**FES 365 (Social Issues) or SUS 350 (Env. Assessment and Planning) if selected**		
Science, Tech, and Society (3)	**Fulfilled by Major (FES 485)**		
Writing Intensive Course	**ENSC 479 (FW Option Elective)**		

Natural Resources Major Requirements 2023-2024 Curriculum **Important Courses Can't Double Count in this Section or in Option**				
Interdisciplinary Foundations- 13 credits (All courses required)	Term Offered (subject to change)	Prerequisites	Fulfilled	Grade
FES 485: Consensus and NR (3); *Synthesis STS*	Spring			
NR 201: Managing NR for the Future (3)	Fall			
NR 202: NR Problems and Solutions (3)	Winter			
NR 455: NR Decision Making (4)	Winter	WIC + FES 485		

Adv. Communication- 3 Credits (Choose One)	Term Offered (subject to change)	Prerequisites	Fulfilled	Grade
COMM 321: Introduction to Communication Theory (3)	Fall			
COMM 322: Small-Group Problem Solving (3)	TBD			
COMM 328: Nonverbal Communication (3)	TBD			
COMM 385: Comm. & Culture in Cyberspace (3)	TBD			
COMM 440: Theories of Conflict & Conflict Mgmt. (3)	TBD			

Biophysical Sciences- 28 Credits				
Biology – 12 credits (Whole sequence required)	Term Offered (subject to change)	Prerequisites	Fulfilled	Grade
BI 221: Principles of Bio: Cells (4); *Bacc Core Bio Science*	Fall	Co/Prereq CH 121		
BI 222: Principles of Bio: Organisms (4); *Bacc Core Add. Sci.*	Winter	BI 221 + CH 121		
BI 223: Principles of Bio Populations (4)	Spring	BI 221 + CH 121		
Chemistry – 5 Credits (Choose One)	Term Offered (subject to change)	Prerequisites	Fulfilled	Grade
CH 121: General Chemistry (5)	Fall	Recommended MTH111		
CH 231/CH 261: General Chemistry (5)	Fall	MTH 111		
Climate Science- 4 Credits	Term Offered (subject to change)	Prerequisites	Fulfilled	Grade
ATS 201: Climate Science (4); *Bacc Core Physical Science*	Spring			
Earth or Soil Science – 4 Credits	Term Offered (subject to change)			
GEO 221: Physical Geology (4); *Bacc core Physical Science*	Fall			
Ecology – 3 credits	Term Offered (subject to change)			
BI 370: General Ecology (3)	Winter	BI 221/BI 222/BI 223		

Mathematics and Statistics - 8 Credits				
Mathematics- 4 Credits (Choose One)	Term Offered (subject to change)	Prerequisites	Fulfilled	Grade
MTH 112Z: Elementary Functions (4); *Bacc Core MTH*	Winter, Spring, Summer	MTH 111Z or 60 score on ALEKS		
MTH 241: Calculus for Mgmt, Life & Social Sci (4); *Bacc Core MTH*	Spring	MTH 111Z or 60 score on ALEKS		
MTH 245: Math for Mgmt, Life and Social Sci (4); *Bacc Core MTH*	Spring	MTH 111Z or 60 score on ALEKS		
MTH 251: Differential Calculus (4); *Bacc Core MTH*	Fall, Winter, Summer	MTH 112Z or 75score on ALEKS		
Statistics – 4 Credits (Choose One)	Term Offered (subject to change)	Prerequisites	Fulfilled	Grade
ST 243Z: Principles of Statistics (4)	Winter			
ST 351**:** Intro. to Statistical Methods (4)	Fall, Summer			

Resource Management				
Animal ID- 2-4 Credits (Choose One)	Term Offered (subject to change)	Prerequisites	Fulfilled	Grade
FW 312: Systematics of Birds (3)	Winter 2024;2026 (Every Other Year)			
FW 318: Systematics of Mammals (3)	Winter 2025;2027 (Every Other Year)			
Z 477: Aquatic Entomology (4)	Fall	BI221/BI222/BI223		
Envir. Assessment and Planning- 4 Credits (Choose One)	Term Offered (subject to change)			
SUS 304: Sustainability Assessment (4)	Winter			
SUS 350: Sustainable Communities (4); *Synthesis: CGI*	Fall			
Fisheries & Marine Sciences- 3 Credits	Term Offered (subject to change)			
FW 323: Management of Pacific Salmon in NW (3)	Winter			
Forestry- 3 Credits	Term Offered (subject to change)			
FES 341: Forest Ecology	Fall			
Land and Water- 4 Credits	Term Offered (subject to change)			
RNG 455: Riparian Ecohydrology & Mgmt (4)	Fall	Recommended FW 326		
Range- 3 Credits	Term Offered (subject to change)			
RNG 341: Rangeland Ecology and Mgmt (3)	Winter			
Vegetation ID- 4 Credits	Term Offered (subject to change)			
RNG 353: Wildland Plant Identification (4)	Fall			
Wildlife Management- 4 Credits				
FW 320: Intro Population Dynamics (4)	Spring 2024 (Every other year) Spring 2026 (Every other year)	BI 370 or Instructor Approval		

Social and Political Dimensions				
Ethics and Philosophy- 3 credits (Choose One)	Term Offered (subject to change)	Prerequisites	Fulfilled	Grade
GEOG 333: Environmental Justice (3); *Bacc Core DPD*	Spring			
ANTH 352: Anthropology, Health, and Environment (3)	Spring			
Natural Resource Policy- 3 Credits	Term Offered (subject to change)			
GEOG 340: Intro. to Water Science (3); *Bacc Core STS*	Fall			
Political Issues – 4 Credits	Term Offered (subject to change)			
PS 475: Environmental Politics and Policy	Spring			
Economics – 4 Credits	Term Offered (subject to change)			
Econ 201: Intro to Microeconomics (4)	Fall, Winter			
Social Issues- 3-4 Credits (Choose One)	Term Offered (subject to change)			
FES 365: Issues in NR Conservation (3); *Synthesis CGI*	Winter			
SOC 480: Environmental Sociology (4)	TBD			
SUS 420: Social Dimensions of Sustainability (3)	Winter			
TRAL 353: Nature, Eco and Adventure Tourism (3)	Fall			

Spatial Analysis – 4 Credits	Term Offered (subject to change)	Prerequisites	Fulfilled	Grade
GEOG 360: Geoscience I: GIS	Winter			

Fish and Wildlife Conservation Specialization Option Requirements

Important courses used for NR major requirements & option can't double count

Minimum of 37 credits is required at least 20 upper division credits.

Measurements- 3-4 Credits (Choose One)	Term Offered (subject to change)	Prerequisites	Fulfilled	Grade
BI 375: Field Methods in Ecological Restoration (4)	Summer	BI221, BI222, B223 + Instructor approval		
FW 255: Field Sampling of Fish and Wildlife (3)	Spring			
Foundations of Conservation -13 Credits (All courses required)				
FES 342: Forest Type of the Northwest (3)	Fall			
FES 440: Wildland Fire Ecology (3)	Spring			
FW 370: Conservation Genetics (4)	Winter	BI 221, BI 222, BI 223		
FW 251: Principles of Fish & Wildlife Conservation (3)	Fall			
Fish and Wildlife Biology – 9 Credits (All courses required)	Term Offered (subject to change)			
FW 311: Ornithology (3)	Spring 2025 every other year Spring 2027 every other year			
FW 317: Mammalogy (3)	Spring 2024 every other year Spring 2026 every other year			
FW 481: Wildlife Ecology (3)	Spring 2025 every other year Spring 2027 every other year	BI 370 or Instructor Approval		
Habitat Management-7 Credits (All courses required)	Term offered (subject to change)			
FES 445: Ecological Restoration (4)	Spring			
FW 326: Integrated Watershed Management (3)	Spring			
Natural Resource Policy -3 Credits	Term Offered (subject to change)			
FW 350: Endangered Species, Society and Sustainability (3)	Winter			
Elective – 3 Credits	Term Offered (subject to change)			
ENSC 479: Environmental Case Studies (3); *WIC class*	Winter			