

# FISHERIES, WILDLIFE, AND CONSERVATION SCIENCES CERTIFICATE

This program is available at the following locations:

- Corvallis
- Ecampus

The Fisheries, Wildlife, and Conservation Sciences Postbaccalaureate Certificate provides targeted coursework designed to prepare students for entry or advancement in careers related to the conservation and management of native fish and wildlife species and communities and the habitats they depend on for survival. The curriculum includes foundational courses in fish and wildlife biology and ecology and more advanced coursework in species, habitats, and ecosystem conservation and managements.

**Certificate Code: C620**

Upon successful completion of the program, students will be able to:

- Explain the physical and ecological processes that sustain ecosystems and describe the implications of altering ecosystem components or processes.
- Synthesize knowledge about organisms and their habitats to develop conservation strategies in a changing environment.
- Assess how social, cultural, historical, and political factors influence conservation policy and management actions.
- Describe the biology, ecology, systematics and evolution of at least one major vertebrate taxon, and explain how the structure, behavior, and physiology of animals in that taxon adapts them to their environment.

Code	Title	Credits
<b>Section 1: Foundation</b> <sup>1</sup>		
BI 221Z & BI 222Z & BI 223Z	+*PRINCIPLES OF BIOLOGY: CELLS and *PRINCIPLES OF BIOLOGY: ORGANISMS and *PRINCIPLES OF BIOLOGY: ECOLOGY AND EVOLUTION	15
or BI 204 & BI 205 & BI 206	+*INTRODUCTORY BIOLOGY I and *INTRODUCTORY BIOLOGY II and *INTRODUCTORY BIOLOGY III	
BI 370 or FW 321	ECOLOGY APPLIED COMMUNITY AND ECOSYSTEM ECOLOGY	3
CH 121	+GENERAL CHEMISTRY	5
FW 251	PRINCIPLES OF FISH AND WILDLIFE CONSERVATION	3
<b>Section 2: Vertebrate Biology and Systematics</b> <sup>2</sup>		
<i>Vertebrate Biology</i>		
Select one course from the following:		3-4
FW 302	BIOLOGY AND CONSERVATION OF MARINE MAMMALS	
FW 311	ORNITHOLOGY	
FW 315	ICHTHYOLOGY	
FW 317	MAMMALOLOGY	
FW 331	ECOLOGY OF MARINE AND ESTUARINE BIRDS	
Z 473	HERPETOLOGY	
<i>Systematics</i>		
Select one course from the following:		3
FW 312	SYSTEMATICS OF BIRDS	
FW 316	SYSTEMATICS OF FISHES	

FW 318	SYSTEMATICS OF MAMMALS	
<b>Section 3: Applied Fisheries and Wildlife Core</b> <sup>3</sup>		
<i>Species Management and Conservation</i>		
Select one course from the following:		3-4
FW 320	INTRODUCTORY POPULATION DYNAMICS	
FW 448	HERPETOFAUNA CONSERVATION AND MANAGEMENT	
FW 451	AVIAN CONSERVATION AND MANAGEMENT	
FW 454	FISHERY BIOLOGY	
FW 458	MAMMAL CONSERVATION AND MANAGEMENT	
FW 473	FISH ECOLOGY	
FW 481	WILDLIFE ECOLOGY	
<i>Habitats and Ecosystem Management</i>		
Select one course from the following:		3-4
FES 445	ECOLOGICAL RESTORATION	
FES 452	BIODIVERSITY CONSERVATION IN MANAGED FORESTS	
FW 326	INTEGRATED WATERSHED MANAGEMENT	
FW 345	GLOBAL CHANGE BIOLOGY	
FW 418	URBAN ECOLOGY	
FW 456	FRESHWATER ECOLOGY AND CONSERVATION	
FW 467	ANTARCTIC SCIENCE AND CONSERVATION	
FW 479	WETLANDS AND RIPARIAN ECOLOGY	
RNG 341	PRINCIPLES OF RANGELAND ECOLOGY AND MANAGEMENT	
<b>Electives</b> <sup>3</sup>		
Select 6-9 credits from the following courses or additional courses from Sections 2 and 3:		6-9
FW 323	MANAGEMENT PRINCIPLES OF PACIFIC SALMON IN THE NORTHWEST	
FW 324	+*FOOD FROM THE SEA	
FW 342	FISH AND WILDLIFE POLICY AND GOVERNANCE	
FW 366	ENVIRONMENTAL CONTAMINANTS IN FISH AND WILDLIFE	
FW 370	CONSERVATION GENETICS	
FW 371	ENVIRONMENTAL PHYSIOLOGY OF FISHES	
FW 415	FISHERIES AND WILDLIFE LAW AND POLICY	
FW 421	AQUATIC BIOLOGICAL INVASIONS	
FW 422	INTRODUCTION TO OCEAN LAW	
FW 427	PRINCIPLES OF WILDLIFE DISEASES	
FW 462	ECOSYSTEM SERVICES	
FW 464	MARINE CONSERVATION BIOLOGY	
FW 475	WILDLIFE BEHAVIOR	
OC 434	ESTUARINE ECOLOGY	
Z 423	ENVIRONMENTAL PHYSIOLOGY	
<b>Total Credits</b>		<b>47</b>

\* Baccalaureate Core course. Applies to general education requirements for undergraduate students in a catalog year up to 2024-2025

+ Core Education course. Applies to general education requirements for undergraduate students in catalog year 2025-2026 and beyond

<sup>1</sup> Double counting is allowed in this section

<sup>2</sup> Two courses in this section may be double counted

<sup>3</sup> None of these courses may be double counted

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