#### TRANSFER GUIDE FOR OREGON STATE UNIVERSITY

#### Major Offered At:

CORVALLIS ECAMPUS CASCADES

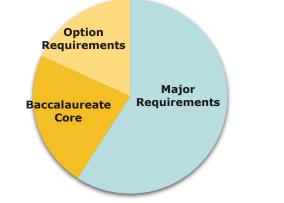
Shasta College

#### Natural Resources Major with Fish & Wildlife Conservation Option

Natural Resources students are passionate about the world around them. They collaborate to preserve and protect the natural world for future generations. Completing this option prepares students for careers natural resource and wildlife conservation.

It emphasizes understanding the relationship between animal species and their habitat requirements and ability to apply that knowledge to the management of ecosystems as a means of conserving fish and wildlife.

# Your Bachelor's Degree (BS) in Natural Resources



- A minimum of 180 credits are required for graduation; 60 must be upper division (300 and 400-level courses).
  - A maximum of 124 credits earned at a community college may be applied toward a bachelor's degree at OSU.
- Only courses with letter prefixes and numbers above 100 are accepted.
- <u>more info at forestry.oregonstate.edu/undergraduate-</u> <u>programs/natural-resources/fish-and-wildlife-</u> <u>conservation</u>

### **Courses Required for Natural Resources Major**

<b>NR Core Requirements</b> <i>Complete one course per category</i>	Shasta Course	OSU Course	Notes
Consensus and Natural Resources		FES 485	Available online at OSU
Managing Nat Res for the Future	AGNR 1	NR 201	Available online at OSU
Natural Resources Decision Making		NR 455	Available online at OSU
Advanced Communication:			
Intro to Communication Theory		COMM 321	
Small Group Problem Solving		COMM 322	
Communication in Organizations		COMM 324	
Intercultural Communication		COMM 326	
Non-Verbal Communication		COMM 328	Available online at OSU
Communication and Culture in Cyberspace		COMM 385	Available online at OSU
Theories of Conflict and Conflict Management		COMM 440	
Bargaining and Negotiating Processes		COMM 442	
Forest as Classroom		FES 430	Available online at OSU
Effective Comm in Fish & Wildlife Sciences		FW 489	Available online at OSU
Critical thinking for NR Challenges		NR 312	
Environmental Interpretation		TRAL 493	Available online at OSU
Technical Writing		WR 327	Available online at OSU
Science Writing		WR 362	Available online at OSU
Environmental Writing		WR 462	
Professional Writing		WR 466	
Biology I			
Introduction to Biology I		BI 204	Available online at OSU
Principles of Biology I with Lab		BI 211	
Biology II			
Introduction to Biology II		BI 205	Available online at OSU
Principles of Biology II with Lab	BIOL 1	BI 212	



NR Core Requirements (continued)			
Complete one course per category	Shasta Course	OSU Course	Notes
Biology III			
Introduction to Biology III		BI 206	Available online at OSU
Principles of Biology III with Lab		BI 213	
Chemistry			
General Chemistry I with Lab		CH 121	Available online at OSU
General Chemistry (Majors) I with Lab	CHEM 1A	CH 231 & 261	Available online at OSU
Climate Science			
Climate Science		ATS 201	Available online at OSU
Global Change Biology		FW 345	
Climatology		GEOG 323	Available online at OSU
Intro to Climate Change		SUS 103	Available online at OSU
Earth or Soil Science		303 103	
Soil Science		CSS 205	Available online at OSU
Principles of Soil Science		CSS 305	
The Solid Earth		GEO 101	Available online at OSU
Physical Geology	ESCI 1	GEO 201	
Earth Systems Science	ESCI 17	GEO 201 GEO 202	
Environmental Geology	ESCI 10	GEO 202 GEO 221	Available online at OSU
Physical Geography	GEOG 1A	GEO 221 GEOG 102	Available online at OSU
Soil Science with Lab	AGPS 24	SOIL 205 & 206	Available offine at 050
	AGPS 24		
Soil Science with Forest Soils Lab		SOIL 205 & FOR 206	
Ecology		DT 251	Available enline at OCU
Marine Ecology		BI 351	Available online at OSU
General Ecology		BI 370	Available online at OSU
Plant Ecology		BOT 341	Available online at OSU
Forest Ecology		FES 341	Available online at OSU
Mathematics			
Elementary Functions	MATH 2B	MTH 112	Available online at OSU
Calculus for Mgmt, Life, and Social Science	MATH 9	MTH 241	Available online at OSU
Math for Mgmt, Life, and Social Science	MATH 9	MTH 245	Available online at OSU
Differential Calculus	MATH 3A	MTH 251	Available online at OSU
Statistics	MATHIA	GT 201	
Principles of Statistics	MATH 14	ST 201	Available online at OSU
Intro to Statistical Methods		ST 351	Available online at OSU
Animal ID		FF0 412	
Forest Entomology		FES 412	
Systematics of Birds		FW 312	Available online at OSU
Systematics of Fishes		FW 316	Available online at OSU
Systematics of Mammals		FW 318	Available online at OSU
Biology of Insects		Z 365	
Herpetology		Z 473	Available online at OSU
Aquatic Entomology		Z 477	
Environ. Assessment & Planning			
Ecological Restoration		FES/FW 445	Available online at OSU
Ecosystems Services		FW 462	Available online at OSU
Land Use Planning for Sust. Communities		GEOG 250	Available online at OSU
Land Use in the American West		GEOG 450	
Planning Principles for Resilient Communities		GEOG 451	
Sustainable Site Planning		GEOG 452	Available online at OSU
Wildland restoration and Ecology		RNG 421	Available online at OSU
Rangeland Management and Planning		RNG 490	Available online at OSU
Sustainability Assessment		SUS 304	Available online at OSU
Sustainable Communities		SUS 350	Available online at OSU
Planning for Sustainable Recreation		TRAL 456	
Planning for Sustainable Tourism Scientific Methods for Analyzing NR Problems		TRAL 457 NR 325	

<b>NR Core Requirements</b> (continued) <i>Complete one course per category</i>	Shasta Course	OSU Course	Notes
Fish & Marine Sciences			
Intro to Marine Biology		BI 150	
Biology of Marine Mammals		FW 302	Available online at OSU
Oceans in Peril		BI 347	Available online at OSU
Marine Ecology		BI 351	Available online at OSU
Intro to Population Dynamics		FW 320	Available online at OSU
Mgmt Principles of Pacific Salmon in the NW		FW 323	Available online at OSU
		FW 325 FW 426	
Coastal Ecology and Resource Management			Available online at OSU
Fishery Biology		FW 454	Available online at OSU
Marine Fisheries		FW 465	
Fish Ecology		FW 473	Available online at OSU
Wildlife Ecology		FW 481	Available online at OSU
Oceanography	ESCI 15	OC 201	Available online at OSU
Coastal Oceanography		OC 332	
Forestry			
International Forestry		FE/FOR 456	
Forest Biology	AGNR 65	FES 240	Available online at OSU
Forest Ecology		FES 341	Available online at OSU
Forest Types of the Northwest		FES 342	Available online at OSU
Urban Forestry		FES/HORT 350	Available online at OSU
		FES 440	Available online at OSU
Wildland Fire Ecology			
Ecological Restoration		FES/FW 445	Available online at OSU
Biodiveristy Conservation in Managed Forests		FES/FW 452	Available online at OSU
Agroforestry		FES/NR 477	
Topics in Wildland Fire		FOR 346	Available online at OSU
Silviculture Principles		FOR 441	
Land & Water			
Shasta Course: Watershed Mgmt & Ecology	AGNR 64	FES LDT	
Watershed Processes		FE 430	Available online at OSU
Forest Watershed Management		FE 434	
Integrated Watershed Management		FW 326	Available online at OSU
Freshwater Ecology and Conservation		FW 456	Available online at OSU
Wetlands and Riparian Ecology		FW 479	Available online at OSU
		GEO 306	Available online at OSU
Minerals, Energy, Water and the Environment			
National Park Geology and Preservation		GEO 307	Available online at OSU
Global Change and Earth Sciences		GEO 308	Available online at OSU
Introduction to Water Science & Policy		GEOG 340	Available online at OSU
Water Resources Management in the U.S.		GEOG 440	
International Water Resource Management		GEOG 441	Available online at OSU
Desert Water Shed Management		RND 355	Available online at OSU
Riparian Ecohydrology and Management		RNG 455	Available online at OSU
Ecosystems of Wildland Soils		SOIL 366	Available online at OSU
Soil Systems and Plant Growth		SOIL 388	Available online at OSU
World Soil Resources		SOIL 395	Available online at OSU
Soil Morphology and Classification		SOIL 466	Available online at OSU
Range			
Wildland Fire Ecology		FES 440	Available online at OSU
Ecological Destaration			
Ecological Restoration		FES/FW 445	Available online at OSU
Topics in Wildland Fire		FOR 346	Available online at OSU
Rangeland Ecology and Management		RNG 341	Available online at OSU
Range Ecology I – Grasslands		RNG 351	Available online at OSU
Range Ecology II – Shrub Lands		RNG 352	Available online at OSU
Wildland Restoration and Ecology		RNG 421	Available online at OSU
Rangeland Analysis		RNG 441	Available online at OSU
Rangeland-Animal Relations		RNG 442	Available online at OSU
Rangeland Management and Planning		RNG 490	Available online at OSU
Vegetation ID			
Shasta College: Native Plant ID	AGNR 6	FES LDT	
		BOT 321	
Plant Systematics			
Agrostology		BOT 414	
Flora of the Pacific Northwest		BOT 425	
Dondrology		FES 241	Available online at OSU
Dendrology Landscape Plant Materials I: Decid & Conifers		HORT 226	Available online at OSU
		HORT 226 HORT 228	Available online at OSU Available online at OSU

<b>NR Core Requirements</b> (continued) Complete one course per category	Shasta Course	OSU Course	Notes
Wildlife Management			
Shasta Course: Wildlife Conservation & Mgmt	AGNR 70	FW LDT	
Introductory Population Dynamics		FW 320	Available online at OSU
Applied Community and Ecosystem Ecology		FW 321	Available online at OSU
Wildlife in Agricultural Ecosystems		FW 435	Available online at OSU
Avian Conservation and Management		FW 451	Available online at OSU
Biodiversity Conservation in Managed Forests		FES/FW 452	Available online at OSU
Mammal Conservation and Management		FW 458	Available online at OSU
Wildlife Ecology		FW 481	Available online at OSU
Animal Behavior		Z 350	Available online at OSU
Ethics & Philosophy		2000	
Ecosystems Science of the PNW Indians		AG 301	Available online at OSU
Anthropology, Health, and the Environment		ANTH 352	Available online at OSU
Ecological Anthropology		ANTH 477	Available online at OSU
Natural Resources and Community Values		ANTH 481	Available online at OSU
Anthropology of International Development		ANTH 482	
Multicultural Perspectives in NR		FW 340	Available online at OSU
Environmental Justice		GEO 309	Available online at OSU
Environmental History of the United States		HST 481	Available online at OSU
Critical Thinking for NR Challenges		NR 312	
Environmental Ethics		PHL 440	Available online at OSU
World View and Environmental Values		PHL/REL 443	Available online at OSU
Natural Resource Policy			
Shasta Course: Environmental Law & Policy	AGNR 12	FES LDT	
Environmental Law		AEC 432	Available online at OSU
Rural Development Economics & Policy		AEC 454	Available online at OSU
Public Lands Policy & Management		FES 486	Available online at OSU
Forest Policy		FOR 460	
Natural Resources Policy and Law		FOR 462	
Fish & Wildlife Law and Policy		FW 415	Available online at OSU
Introduction to Ocean Law		FW 422	Available online at OSU
U.S. Energy Policy		PS 473	Available online at OSU
Environmental Politics and Policy		PS 475	Available online at OSU
International Environmental Politics & Policy		PS 477	Available online at OSU
Political Issues			
Plagues, Pests, and Politics		ENT/HORT 300	Available online at OSU
Natural Resource Policy and Law		FOR 462	
Endangered Spec, Society and Sustainability		FW 350	Available online at OSU
When Science Escapes the Lab		NR 351	
The Politics of Climate Change		PS 455	Available online at OSU
Environmental Politics and Policy		PS 475	Available online at OSU
Science and Politics		PS 476	Available online at OSU
International Environmental Politics & Policy		PS 477	Available online at OSU
Wilderness Management		TRAL 352	Available online at OSU
Resource Economics			
Natural Resource Economics and Policy		AEC 351	Available online at OSU
Environmental Economics and Policy		AEC/ECON 352	Available online at OSU
Rural Development Economics and Policy		AEC 454	Available online at OSU
Forest Resource Economics I		FOR 329	

<b>NR Core Requirements</b> (continued) Complete one course per category	Shasta Course	OSU Course	Notes
Social Issues			
Management for Multiple Resource Values		FES 355	Available online at OSU
Issues in Natural Resource Conservation		FES 365	Available online at OSU
Global Crises in Resource Ecology		FW 325	Available online at OSU
Sustainability for the Common Good		GEOG 300	Available online at OSU
Climate Change, Water and Society		GEOG 240	
Resilience-Based Natural Resource Mgmt		GEOG 430	
Global Resource Development		GEOG 431	
When Science Escapes the Lab		NR 351	
Social Dimensions of Sustainability		SOC 381	Available online at OSU
Rural Sociology		SOC 475	
Environmental Sociology		SOC 480	Available online at OSU
Society and Natural Resources		SOC 481	Available online at OSU
Social Dimensions of Sustainability		SUS 420	Available online at OSU
Recreation Resource Management		TRAL 251	Available online at OSU
Outdoor Recreation on Public Lands		TRAL 351	
Wilderness Management		TRAL 352	Available online at OSU
Nature, Eco, and Adventure Tourism		TRAL 353	
Communities, Natural Areas, and Tourism		TRAL 354	
Women and Natural Resources		WGSS 440	Available online at OSU
Spatial Analysis			
Precision Agriculture		CROP/HORT 414	Available online at OSU
GIS and Forest Engineering Applications	GEOG 13	FE 257	Available online at OSU
Survey of Geographic Information Systems		FW 303	Available online at OSU
Foundations of Geospatial Science & GIS		GEOG 201	Available online at OSU
Geoscience I: GIS and Theory		GEOG 360	Available online at OSU

# **Courses Required for Fish & Wildlife Conservation Option**

<b>Requirement</b> Complete one course per category unless otherwise noted.	Shasta Course	OSU Course	Notes
Measurements			
Field Methods in Marine Ecology		BI 373	
Field Sampling of Fish & Wildlife		FW 255	Available online at OSU
Field Methods for Marine Research		FW 493	
Scientific Methods for Analyzing NR Problems		NR 325	
Rangeland Analysis		RNG 441	Available online at OSU
Forest Types of the Northwest		FES 342	
Introduction to Forestry	ANGR 55	FOR 111	Available online at OSU
Wildland Fire Ecology		FES 440	Available online at OSU
Topics in Wildland Fire		FOR 346	Available online at OSU
Wildland Fire Science and Management		FOR 436	Available online at OSU
Biodiversity Conservation in Managed Forests		FES/FW 452	Available online at OSU
Conservation Genetics		FW 370	Available online at OSU
Principles of Fish & Wildlife Conservation		FW 251	Available online at OSU
Fish & Wildlife Biology – complete 3			
Biology of Marine Mammals		FW 302	Available online at OSU
Ornithology		FW 311	Available online at OSU
Ichthyology		FW 315	Available online at OSU
Mammalogy		FW 317	Available online at OSU
Introductory Population Dynamics		FW 320	Available online at OSU
Applied Community and Ecosystem Ecology		FW 321	Available online at OSU
Ecology of Marine and Estuarine Birds		FW 331	
Fish Ecology		FW 473	Available online at OSU
Wildlife Ecology		FW 481	Available online at OSU
Environmental Physiology		Z 423	Available online at OSU
Herpetology		Z 473	

<b>Requirement</b> Complete one course per category unless	Shasta Course	OSU Course	Notes
otherwise noted.			
Habitat Management – complete 2			
Ecological Restoration		FES/FW 445	Available online at OSU
Integrated Watershed Management		FW 326	Available online at OSU
Coastal Ecology and Resource Management		FW 426	Available online at OSU
Estuarine Ecology		FW/OC 434	Available online at OSU
Wildlife in Agricultural Ecosystems		FW 435	Available online at OSU
Freshwater Ecology and Conservation		FW 456	Available online at OSU
Wetlands and Riparian Ecology		FW 479	Available online at OSU
Rangeland Ecology and Management		RNG 341	Available online at OSU
Riparian Ecohydrology and Management		RNG 455	Available online at OSU
Ecosystems of Wildland Soils		SOIL 366	Available online at OSU
Soil Systems and Plant Growth		SOIL 388	Available online at OSU
Soil Morphology and Classification		SOIL 466	Available online at OSU
Natural Resource Policy		FFC 400	
Public Lands Policy and Management		FES 486	Available online at OSU
Endangered Species, Soc and Sustainability		FW 350	Available online at OSU
Fisheries and Wildlife Law and Policy		FW 415	Available online at OSU
Human Dimensions in Fish & Wildlife Mgmt		FW 439	Available online at OSU
Natural Resource Policy and Law		FOR 462	
Electives – complete 2			
Oceans in Peril		BI 347	
Aquatic Biological Invasions		FW 421	
Environmental Case Studies		ENSC 479	
Human Dimensions in Fish & Wildlife Mgmt		FW 439	
Mgmt Principles of Pacific Salmon in NW		FW 323	
Origins of Fish & Wildlife Management		FW 360	
Environmental Contaminants in F&W		FW 366	
Natural History of Whales and Whaling		FW 419	
Principles of Wildlife Disease		FW 427	
Dynamics of Marine Biological Resources		FW 431	
Avian Conservation and Management		FW 451	
Fishery Biology		FW 454	
Ecosystems Services		FW 462	
Marine Fisheries		FW 465	
Antarctic Science and Conservation		FW 467	
Phys and Behavior of Marine Megafauna		FW 469	
Environmental Physiology of Fishes		FW 471	
Early Life History Fishes		FW 474	
Wildlife Behavior		FW 475	
Fish Physiology		FW 476	
Aquaculture		FW 497	
Aquaculture Laboratory		FW 497 FW 498	
Natural Resource Problems and Solutions		NR 202	
Scientific Methods for Analyzing NR Problems		NR 325	
Biodiv: Causes, Consequences, Conservation		Z 349	
Animal Behavior		Z 350	
Biology of Insects		Z 365	
Aquatic Entomology		Z 477	

## General Education Courses (called the Baccalaureate Core)

SKILLS COURSES	Math Writing I Writing II Speech (Writing III) Fitness	Completed as part of major: MTH 112 or higher WR 121. Required to transfer. Can be completed as part of major: see advisor Choose one course from Bacc Core link above HHS 231 & 241/PAC Course
PERSPECTIVE COURSES	Biological Science Physical Science Additional Biological or Physical Science Cultural Diversity Literature and the Arts Social Processes and Institutions Western Culture	Completed as part of major: Biology I Completed as part of major: Chemistry Completed as part of major: Biology II Choose one course from Bacc Core link above Choose one course from Bacc Core link above Completed as part of major: ECON 201 or AEC 250 Choose one course from Bacc Core link above
DPD COURSE	Difference, Power, & Discrimination	Can be completed as part of major: see advisor
SYNTHESIS COURSES	Contemporary Global Issues Science, Technology, & Society	Upper division course, take through OSU Upper division course, take through OSU

• Complete one course in each Perspective category with no more than two in the same department.

#### **Advising Contacts**

Academic advisors at your community college and OSU are available to answer your questions and assist you in creating a transfer plan. **See your community college advisor first and use this Transfer Guide to help you plan.** It is important to speak with your OSU academic advisor early on, and often, to ensure correct course selection and sequencing. See <u>visitosu.oregonstate.edu/visit-campus</u> to schedule your personalized visit.

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OSU College of Forestry Prospective Student Advisor	Autumn Granger 541-737-9135 Autumn.granger@oregonstate.edu