#### TRANSFER GUIDE FOR OREGON STATE UNIVERSITY

Major Offered At:

CORVALLIS

**ECAMPUS** 

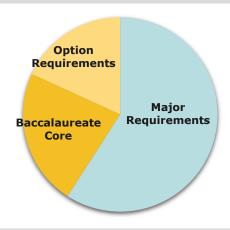
# **Umpqua Community College**

#### **Natural Resources Major with Ecological Restoration Option**

Natural Resources students are passionate about the world around them. They collaborate to preserve and protect the natural world for future generations.

NR students completing this option will understand the complexities associated with restoration of terrestrial and aquatic ecosystems, and how restorative decisions involve significant interactions between ecological and social systems.

### 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 135 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>forestry.oregonstate.edu/undergraduate-</u> programs/natural-resources/ecological-restoration

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

NR Core Requirements Complete one course per category	UCC Course	OSU Course	Notes
Consensus and Natural Resources		FES 485	Available online at OSU
Managing Nat Res for the Future	FOR/NR 201	NR 201	Available online at OSU
Natural Resource Problems & Solutions		NR 202	Available online at OSU
Natural Resources Decision Making		NR 455	Available online at OSU
Advanced Communication UCC Course: Enrivon. Dispute Resolution Intro to Communication Theory Small Group Problem Solving Communication in Organizations Intercultural Communication Non-Verbal Communication Communication and Culture in Cyberspace Theories of Conflict and Conflict Management Bargaining and Negotiating Processes Forest as Classroom Effective Comm in Fish & Wildlife Sciences Critical thinking for NR Challenges Environmental Interpretation Technical Writing Science Writing	NR 295 WR 227	FES LDT COMM 321 COMM 322 COMM 324 COMM 326 COMM 328 COMM 385 COMM 440 COMM 442 FES 430 FW 489 NR 312 TRAL 493 WR 327 WR 362	Available online at OSU
Environmental Writing Professional Writing		WR 462 WR 466	
Biology I			
Introduction to Biology I Principles of Biology: Cells	BI 212	BI 204 BI 221	Available online at OSU



NR Core Requirements (continued) Complete one course per category	UCC Course	OSU Course	Notes
Biology II			
Introduction to Biology II		BI 205	Available online at OSU
Principles of Biology: Organisms	BI 213	BI 222	
Biology III			
Introduction to Biology III		BI 206	Available online at OSU
Principles of Biology: Populations	BI 211	BI 223	
Chemistry			
General Chemistry I with Lab		CH 121	Available online at OSU
General Chemistry (Majors) I with Lab	CH 221	CH 231 & 261	Available online at OSU
Climate Science			
Climate Science	ATS 201	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
Soil Science		CCC 20E	Available enline at OCH
Soil Science		CSS 205 CSS 305	Available online at OSU
Principles of Soil Science Soil Science with Lab	SOIL 205 & SOIL 206	SOIL 205 & 206	
Soil Science with Forest Soils Lab	SOIL 205 & SOIL 206		
Ecology	301L 203 & FOR/301L 200	301L 203 & FOR 200	
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		. =0 0 . =	, wands o on o o o o
Elementary Functions	MTH 112	MTH 112	Available online at OSU
Calculus for Mgmt, Life, and Social Science	MTH 241 or MTH 242	MTH 241	Available online at OSU
Math for Mgmt, Life, and Social Science		MTH 245	Available online at OSU
Differential Calculus	MTH 251	MTH 251	Available online at OSU
Statistics			
Principles of Statistics	MTH 243	ST 201	Available online at OSU
Intro to Statistical Methods		ST 351	Available online at OSU
Animal ID			
Terrestrial Vertebrate ID & Natural History		FOR 210	
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 Z 365	Available online at OSU
Biology of Insects Herpetology		Z 473	Available online at OSU
Aquatic Entomology		Z 473 Z 477	Available offillie at 050
Environ. Assessment & Planning		<i>∟ ⊣11</i>	<u> </u>
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
Scientific Methods for Analyzing NR Problems		NR 325	
Wildland restoration and Ecology		RNG 421	Available online at OSU
Habitat Analysis I		RNG 457	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		TRAL 457	

NR Core Requirements (continued) Complete one course per category	UCC 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
Coastal Ecology and Resource Management		FW 426	Available online at OSU
Fishery Biology		FW 454	Available online at OSU
Marine Fisheries			Available offille at 050
		FW 465	Available enline at OCH
Fish Ecology		FW 473	Available online at OSU
Wildlife Ecology	00.147	FW 481	Available online at OSU
Oceanography	GS 147	OC 201	Available online at OSU
Coastal Oceanography		OC 332	
Forestry			
International Forestry		FE/FOR 456	
Forest Biology	FOR/NR 240	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
Wildland Fire Ecology		FES 440	Available online at OSU
Ecological Restoration		FES/FW 445	Available online at OSU
Biodiversity Conservation in Managed Forests		FES/FW 452	Available online at OSU
Agroforestry		FES/NR 477	Available offilite at 030
			Available enline at OCH
Topics in Wildland Fire		FOR 346	Available online at OSU
Silviculture Principles		FOR 441	
Land & Water			
UCC Course: Water Resource Mgmt.	NR 221	GEO 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
Minerals, Energy, Water and the Environment		GEO 306	Available online at OSU
National Park Geology and Preservation	G 213	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	/ Wallable offilite at 656
International Water Resource Management		GEOG 441	Available online at OSU
Desert Water Shed Management		RNG 355	Available online at OSU
		RNG 455	Available online at OSU
Riparian Ecohydrology and Management			
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 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	DOT 204	DOT LDT	
UCC Course: Flowering Plants of SW Oregon	BOT 204	BOT LDT	
Plant Systematics		BOT 321	
Agrostology		BOT 414	
Flora of the Pacific Northwest		BOT 425	Available online at OSU
Dendrology	FOR/NR 241	FES 241	Available online at OSU
		HORT 226	Available online at OSU
Landscape Plant Materials I: Decid & Conifers		HORT ZZO	, and bid dimind de ded
Landscape Plant Materials I: Decid & Conifers Landscape Plant Materials II: Shrubs		HORT 228	Available online at OSU

NR Core Requirements (continued)			
Complete one course per category	UCC Course	OSU Course	Notes
Wildlife Management			
Principles of Fish & Wildlife Conservation	NR 251	FW 251	Available online at OSU
Introductory Population Dynamics	1417 231	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 453	Available online at OSU
Biodiversity Conservation in Managed Forests		FES/FW 452	Available online at OSU
		FES/FW 452 FW 458	
Mammal Conservation and Management		1	Available online at OSU
Wildlife Ecology		FW 481	Available online at OSU
Animal Behavior		Z 350	Available online at OSU
Ethics & Philosophy		10.201	A stable selection of OCH
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
Transforming Environmental Conflicts		GEOG 241	Available online at OSU
Environmental Justice		GEOG 330	Available online at OSU
Environmental History of the United States		HST 481	Available online at OSU
Critical Thinking for NR Challenges		NR 312	
Nature in Storytelling over the Centuries		NR 380	Available online at OSU
Environmental Ethics		PHL 440	Available online at OSU
World View and Environmental Values		PHL/REL 443	Available online at OSU
Sustainability, Justice & Engagement		SUS 331	Available online at OSU
Natural Resource Policy			
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		1.5 1,7	/ (valiable offinite at 000
Plagues, Pests, and Politics		ENT/HORT 300	Available online at OSU
Natural Resource Policy and Law		FOR 462	Available offilite at 050
Endangered Spec, Society and Sustainability		FW 350	Available online at OSU
When Science Escapes the Lab		NR 351	Available offillie at 030
The Politics of Climate Change		PS 455	Available online at OSU
Environmental Politics and Policy		PS 455 PS 475	Available online at OSU
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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
Economics		450.050	
Intro to Environmental Economics & Policy		AEC 250	Available online at OSU
Intro to Microeconomics	ECON 201	ECON 201	Available online at OSU

NR Core Requirements (continued) Complete one course per category	UCC Course	OSU Course	Notes
Social Issues			
Human Impacts on Ecosystems		BI 301	
Human Ecology		BI 348	
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	
Transforming Environmental Conflicts		GEOG 241	
Resilience-Based Natural Resource Mgmt		GEOG 430	
Global Resource Development		GEOG 431	
When Science Escapes the Lab		NR 351	
Oceans, Coasts & People		OC 333	Available online at OSU
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	FOR/NR 261	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	
Parks & Protected Areas		TRAL 357	
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	GIS 134 or FOR/GIS 234	FE 257	Available online at OSU
Survey of Geographic Information Systems		FW 303	Available online at OSU
Foundations of Geospatial Science & GIS	GIS 203	GEOG 201	Available online at OSU
Geoscience I: GIS and Theory	GIS 234	GEOG 360	Available online at OSU

## **Courses Required for Ecological Restoration Option**

<b>Requirement</b> Complete one course per category unless otherwise noted	UCC Course	OSU Course	Notes
Measurements			
Field Methods in Ecological Restoration Field Methods in Plant Ecology Scientific Methods for Analyzing NR Problems		BI 375 BOT 440 NR 325	Available online at OSU
Rangeland Analysis		RNG 441	Available online at OSU
Resource Economics Natural Resources Economics & Policy Environmental Economics & Policy Intro to Coastal & Marine Resource Econ Rural Development Economics & Policy Forest Resource Economics I		AEC 351 AEC/ECON 352 AEC 353 AEC 454 FOR 329	Available online at OSU Available online at OSU Available online at OSU
Economics & Policy of Wildland Fire		FOR 431	Available online at OSU
Plant Systematics Plant Ecology		BOT 321 BOT 341	Available online at OSU
General Chemistry II with Lab	CH 105	CH 122	Available online at OSU
General Chemistry II with Lab (for majors)	CH 222	CH 232 & 262	Available online at OSU
Ecological Restoration Wetlands and Riparian Ecology		FES/FW 445 FW 479	Available online at OSU  Available online at OSU
Riparian Ecohydrology and Management		RNG 455	Available online at OSU
Land Use in the American West		GEOG 450	Available offine de 656
Planning Prin & Pract for Resilient Community		GEOG 451	
Sustainable Site Planning		GOEG 452	Available online at OSU
Ecosystems of Wildland Soils		SOIL 366	Available online at OSU
Soil System and Plant Growth Soil Morphology and Classification		SOIL 388 SOIL 466	Available online at OSU  Available online at OSU
Social & Ethical Considerations		301L 400	Available offille at 030
Urban Forestry Econ and Policy of Forest Wildland Fire Critical Thinking for NR Challenges Environmental Ethics World Views and Environmental Values Environmental Sociology Society and Natural Resources		FES/HORT 350 FOR 431 NR 312 PHL 440 PHL/REL 443 SOC 480 SOC 481	Available online at OSU Available online at OSU  Available online at OSU Available online at OSU Available online at OSU
Sustainability, Justice, and Engagement		SUS 331	Available online at OSU
Ecological & NR Electives – need 12 cr. Marine Ecology Environmental Physiology of plants Wildland Fire Ecology		BI 351 BOT 488 FES 440	Available online at OSU  Available online at OSU
Wildland Fire Science & Management Biodiversity Cons in Managed Forests Silviculture Principles Introductory Population Dynamics		FOR 436 FES/FW 452 FOR 441 FW 320	Available online at OSU Available online at OSU Available online at OSU
Coastal Ecology and Resource Management Avian Conservation and Management Fishery Biology		FW 426 FW 451 FW 454	Available online at OSU Available online at OSU Available online at OSU
Freshwater Ecology and Conservation Mammal Conservation and Management Fish Ecology Wildlife Ecology		FW 456 FW 458 FW 473 FW 481	Available online at OSU Available online at OSU Available online at OSU Available online at OSU
Rangeland Ecology and Management Wildland Restoration and Ecology Soil Landscape Analysis		RNG 341 RNG 421 SOIL 468	Available online at OSU Available online at OSU
Biodiversity: Causes, Consequences, Conserv Environmental Physiology		Z 349 Z 423	Available online at OSU Available online at OSU

#### General Education Courses (called the Baccalaureate Core)

- Complete one course in each Perspective category with no more than two in the same department.
- Full listing of UCC courses that fulfill Bacc Core requirements: <u>admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-umpqua-community-college</u>

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 HPE 295 @ Umpqua
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 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

#### **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.

Umpqua Community College	Bryan Benz, Science Faculty 541-440-4618 bryan.benz@umpqua.edu
OSU College of Forestry Prospective Student Advisor	Autumn VanderLinden 541-737-9135 Autumn.VanderLinden@oregonstate.edu