#### TRANSFER GUIDE FOR OREGON STATE UNIVERSITY

Major Offered At:
CORVALLIS

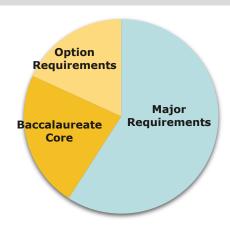
# Columbia Gorge Community College

#### **Natural Resources Major with Forest Ecosystems Option**

Natural Resources students are passionate about the world around them. They collaborate to preserve and protect the natural world for future generations. Students will understand the nature of forest ecosystems and the process by which they function.

Course work includes an understanding of the multiple resources and values associated with forest ecosystems and some of the techniques involved in managing them.

#### 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.
- More info at forestry.oregonstate.edu/undergraduateprograms/natural-resources/forest-ecosystems

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

NR Core Requirements Complete one course per category	CGCC Course	OSU Course	Notes
Consensus and Natural Resources		FES 485	Available online at OSU
Managing Nat Res for the Future		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:			
Communication in Global Agriculture		AG 351	Available online at OSU
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 of Environmental Change Sci		GEOG 453	
Critical thinking for NR Challenges		NR 312	
Environmental Interpretation		TRAL 493	Available online at OSU
Science Writing		WR 362	Available online at OSU
Environmental Writing		WR 462	Available online at OSU
Biology I			
Introduction to Biology I		BI 204	Available online at OSU
Principles of Biology: Cells	BI 211	BI 221	



NR Core Requirements (continued)	CGCC Course	OSU Course	Notes
Complete one course per category	cocc course	030 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 212	BI 223	
Chemistry			
General Chemistry I with Lab	CH 121	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	GS 184	ATS 201	Available online at OSU
Global Change Biology		FW 345	, transpire enimie at eee
Climatology		GEOG 323	Available online at OSU
Intro to Climate Change		SUS 103	Available online at OSU
Soil Science		303 103	7.tranable omine ac obo
Soil Science		CSS 205	Available online at OSU
Soil Science with Lab		SOIL 205 & 206	, wandbie ommie de ooo
Soil Science with Eab Soil Science with Forest Soils Lab		SOIL 205 & 200	
Ecology		301L 203 & 1 OK 200	
Marine Ecology		BI 351	Available online at OSU
		BI 370	Available online at OSU
General Ecology			
Plant Ecology		BOT 341	Available online at OSU
Mathematics	MILLIANS	MTU 4427	A - 11-11 11 1 OGU
Elementary Functions	MTH 112Z	MTH 112Z	Available online at OSU
Calculus for Mgmt, Life, and Social Science		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	STAT 243Z	ST 243Z	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	Available online at OSU
Biology of Insects		Z 365	
Herpetology		Z 473	Available online at OSU
Aquatic Entomology		Z 477	
Environ. Assessment & Planning			
Agriculture & Environmental Predicaments		CROP/SOIL/SUS 325	
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	Available online at OSU
Sustainable Site Planning		GEOG 452	Available online at OSU
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	,anabie omnie at 000
Planning for Sustainable Recreation  Planning for Sustainable Tourism		TRAL 457	
Scientific Methods for Analyzing NR Problems		NR 325	Available online at OSU
Scientific Pietrious for Alianyzing NK Froblettis	ı	INIX JZJ	Available offille at 030

NR Core Requirements (continued) Complete one course per category	CGCC 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
		FW 320	
Intro to Population Dynamics			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
Fish Ecology		FW 473	Available online at OSU
Wildlife Ecology		FW 481	Available online at OSU
Oceanography	GS 108	OC 201	Available online at OSU
Coastal Oceanography		OC 332	
Forestry			
International Forestry		FE/FOR 456	
Forest Biology		FES 240	Available online at OSU
Forest Types of the Northwest		FES 342	Available online at OSU
Urban Forestry		FES/HORT 350	Available online at OSU
Ecological Restoration		FES/FW 445	Available online at OSU
Agroforestry		FES/NR 477	
Topics in Wildland Fire		FOR 346	Available online at OSU
Land & Water		1010 340	Available offline at 050
Watershed Processes		FE 430	Available online at OSU
Forest Watershed Management		FE 430 FE 434	Available Utilitie at USU
		-	Available enline at OCH
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		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
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		3312 .33	7.114114213 3111113 42 333
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			
Plant Systematics		BOT 321	Available online at OSU
Agrostology		BOT 414	
Flora of the Pacific Northwest		BOT 425	
Mycology		BOT 461	Available online at OSU
Dendrology		FES 241	Available online at OSU
Landscape Plant Materials I: Decid & Conifers		HORT 226	Available online at OSU
Landscape Plant Materials II: Shrubs		HORT 228	Available online at OSU
Wildland Plant Identification		RNG 353	Available online at OSU
Wildlife Management		1	
Principles of Fish & Wildlife Conservation		FW 251	Available online at OSU
		FW 320	Available online at OSU
Introductory Population Dynamics		FW 320 FW 321	Available online at OSU  Available online at OSU
Applied Community and Ecosystem Ecology			
Wildlife in Agricultural Ecosystems		FW 435	Available online at OSU
Avian Conservation and Management		FW 451	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

NR Core Requirements (continued)			
Complete one course per category	CGCC Course	OSU Course	Notes
Ethics & Philosophy			
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
Public Lands Policy & Management		FES 486	Available online at OSU
Forest Policy		FOR 460	
Forest Policy Analysis		FOR 461	
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
<b>Political Issues</b> Plagues, Pests, and Politics		ENT/HODT 200	Available online at OSU
Endangered Spec, Society and Sustainability		ENT/HORT 300 FW 350	Available online at OSU
When Science Escapes the Lab		NR 351	Available offille at 050
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
Economics			
Intro to Environmental Economics & Policy		AEC 250	Available online at OSU
Intro to Microeconomics	EC 201	ECON 201	Available online at OSU
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 OC 333	Available online at OSU
Oceans, Coasts & People Social Dimensions of Sustainability			Available online at OSU  Available online at OSU
Rural Sociology		SOC 381 SOC 475	Available offline at USU
Environmental Sociology		SOC 473	Available online at OSU
Society and Natural Resources		SOC 480	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	Available offilifie at 050
Wilderness Management		TRAL 352	Available online at OSU
Nature, Eco, and Adventure Tourism		TRAL 353	Attailable stilline at 000
Communities, Natural Areas, and Tourism		TRAL 354	
Parks & Protected Areas		TRAL 357	Available online at OSU
Women and Natural Resources		WGSS 440	Available online at OSU

NR Core Requirements (continued) Complete one course per category	CGCC Course	OSU Course	Notes
Spatial Analysis			
Precision Agriculture		CROP/HORT 414	Available online at OSU
GIS and Forest Engineering Applications		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 Forest Ecosystems Option**

<b>Requirement</b> Complete one course per category unless	CGCC Course	OSU Course	Notes
otherwise noted			
Measurements			
Field Methods in Ecological Restoration		BI 375	
Field Methods in Plant Ecology		BOT 440	Available online at OSU
Forest Mensuration		FOR 321	
Forest Ecology		FES 341	Available online at OSU
Forest Entomology		FES 412	
Wildland Fire Ecology		FES 440	Available online at OSU
Biodiversity Conservation in Managed Forests		FES/FW 452	Available online at OSU
Forest Pathology		FOR 413	
Wildland Fire Science & Management		FOR 436	Available online at OSU
Silviculture Principles		FOR 441	
Ecology Breath - choose two classes			
Plant Systematics		BOT 321	Available online at OSU
Plant Ecology		BOT 341	Available online at OSU
Flora of the Pacific Northwest		BOT 425	
Forest Watershed Management		FE 434	
Ecological Restoration		FES/FW 445	Available online at OSU
Agroforestry		FES/NR 477	
Principles of Fish & Wildlife Conservation		FW 251	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
Avian Conservation and Management		FW 451	Available online at OSU
Freshwater Ecology and Conservation		FW 456	Available online at OSU
Mammal Conservation and Management		FW 458	Available online at OSU
Fish Ecology		FW 473	
Wildlife Ecology		FW 481	Available online at OSU
Scientific Methods for Analyzing NR Problems		NR 325	Available online at OSU
Range Ecology I – Grasslands		RNG 351	Available online at OSU
Range Ecology II – Shrublands		RNG 352	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
Biodiversity: Causes, Consequences, Conserv.		Z 349	Available online at OSU
Herpetology		Z 473	Available online at OSU
Technical Electives Forest Surveying		FE 208	Available online at OSU
Forest Photogrammetry & Remote Sensing		FE 208	Available offille at 050
GIS & Forest Engineering Applications		FE 257	Available online at OSU
Harvesting Operations		FE 370	Available offille at 030
Forestry Remote Sensing & Photogrammetry		FE 444	
Arboriculture		FES 447	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
Intro to Statistical Methods I		ST 351	Available online at OSU
Intro to Statistical Methods II		ST 352	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 CGCC courses that fulfill Bacc Core requirements: <u>admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-columbia-gorge-community-college</u>

SKILLS COURSES	Math Writing I Writing II Speech (Writing III) Fitness	Completed as part of major: MTH 112Z or higher WR 121Z. Required to transfer. Can be completed as part of major: see advisor Choose one course from Bacc Core link above HPE 295 @ CGCC
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: EC 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.

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OSU College of Forestry	541-737-1594
Student Services Office	forestrystudentservices@oregonstate.edu