

# TRANSFER GUIDE FOR OREGON STATE UNIVERSITY

Major Offered At:

**CORVALLIS**

**Clackamas  
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/undergraduate-programs/natural-resources/forest-ecosystems](http://forestry.oregonstate.edu/undergraduate-programs/natural-resources/forest-ecosystems)

## Courses Required for Natural Resources Major

NR Core Requirements	Clackamas Course	OSU Course	Notes
<i>Complete one course per category</i>			
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
<b>Advanced Communication:</b> Communication in Global Agriculture 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 of Environmental Change Sci Critical thinking for NR Challenges Environmental Interpretation Science Writing Environmental Writing		AG 351 COMM 321 COMM 322 COMM 324 COMM 326 COMM 328 COMM 385 COMM 440 COMM 442 FES 430 GEOG 453 NR 312 TRAL 493 WR 362 WR 462	Available online at OSU  Available online at OSU Available online at OSU Available online at OSU
<b>Biology I</b> Introduction to Biology I Principles of Biology: Cells	BI 211	BI 204 BI 221	Available online at OSU

<b>NR Core Requirements</b> (continued) <i>Complete one course per category</i>	<b>Clackamas Course</b>	<b>OSU Course</b>	<b>Notes</b>
<b>Biology II</b> Introduction to Biology II Principles of Biology: Organisms	BI 213	BI 205 BI 222	Available online at OSU
<b>Biology III</b> Introduction to Biology III Principles of Biology: Populations	BI 212	BI 206 BI 223	Available online at OSU
<b>Chemistry</b> General Chemistry I with Lab General Chemistry (Majors) I with Lab	CH 221	CH 121 CH 231 & 261	Available online at OSU Available online at OSU
<b>Climate Science</b> Climate Science Global Change Biology Climatology Intro to Climate Change		ATS 201 FW 345 GEOG 323 SUS 103	Available online at OSU Available online at OSU Available online at OSU
<b>Soil Science</b> Soil Science Soil Science with Lab Soil Science with Forest Soils Lab		CSS 205 SOIL 205 & 206 SOIL 205 & FOR 206	Available online at OSU
<b>Ecology</b> Marine Ecology General Ecology Plant Ecology		BI 351 BI 370 BOT 341	Available online at OSU Available online at OSU Available online at OSU
<b>Mathematics</b> Elementary Functions Calculus for Mgmt, Life, and Social Science Math for Mgmt, Life, and Social Science Differential Calculus	MTH 112Z  MTH 251	MTH 112Z MTH 241 MTH 245 MTH 251	Available online at OSU Available online at OSU Available online at OSU Available online at OSU
<b>Statistics</b> Principles of Statistics Intro to Statistical Methods	STAT 243Z	ST 243Z ST 351	Available online at OSU Available online at OSU
<b>Animal ID</b> CCC Course: Bird ID and Taxonomy Terrestrial Vertebrate ID & Natural History Forest Entomology Systematics of Birds Systematics of Fishes Systematics of Mammals Biology of Insects Herpetology Aquatic Entomology	BI 160	BI LDT FOR 210 FES 412 FW 312 FW 316 FW 318 Z 365 Z 473 Z 477	Available online at OSU Available online at OSU Available online at OSU Available online at OSU
<b>Environ. Assessment &amp; Planning</b> Agriculture & Environmental Predicaments Ecological Restoration Ecosystems Services Land Use Planning for Sust. Communities Land Use in the American West Planning Principles for Resilient Communities Sustainable Site Planning Wildland restoration and Ecology Habitat Analysis I Rangeland Management and Planning Sustainability Assessment Sustainable Communities Planning for Sustainable Recreation Planning for Sustainable Tourism Scientific Methods for Analyzing NR Problems		CROP/SOIL/SUS 325 FES/FW 445 FW 462 GEOG 250 GEOG 450 GEOG 451 GEOG 452 RNG 421 RNG 457 RNG 490 SUS 304 SUS 350 TRAL 456 TRAL 457 NR 325	Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU

<b>NR Core Requirements</b> (continued) <i>Complete one course per category</i>	<b>Clackamas Course</b>	<b>OSU Course</b>	<b>Notes</b>
<b>Fish &amp; Marine Sciences</b> Intro to Marine Biology Biology of Marine Mammals Oceans in Peril Marine Ecology Intro to Population Dynamics Mgmt Principles of Pacific Salmon in the NW Coastal Ecology and Resource Management Fishery Biology Fish Ecology Wildlife Ecology Oceanography Coastal Oceanography		BI 150 FW 302 BI 347 BI 351 FW 320 FW 323 FW 426 FW 454 FW 473 FW 481 OC 201 OC 332	Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU
<b>Forestry</b> International Forestry Forest Biology Forest Types of the Northwest Urban Forestry Ecological Restoration Agroforestry Topics in Wildland Fire		FE/FOR 456 FES 240 FES 342 FES/HORT 350 FES/FW 445 FES/NR 477 FOR 346	Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU
<b>Land &amp; Water</b> Watershed Processes Forest Watershed Management Integrated Watershed Management Freshwater Ecology and Conservation Wetlands and Riparian Ecology Minerals, Energy, Water and the Environment National Park Geology and Preservation Global Change and Earth Sciences Introduction to Water Science & Policy Water Resources Management in the U.S. International Water Resource Management Riparian Ecohydrology and Management Ecosystems of Wildland Soils Soil Systems and Plant Growth World Soil Resources Soil Morphology and Classification		FE 430 FE 434 FW 326 FW 456 FW 479 GEO 306 GEO 307 GEO 308 GEOG 340 GEOG 440 GEOG 441 RNG 455 SOIL 366 SOIL 388 SOIL 395 SOIL 466	Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU
<b>Range</b> Ecological Restoration Topics in Wildland Fire Rangeland Ecology and Management Range Ecology I – Grasslands Range Ecology II – Shrub Lands Wildland Restoration and Ecology Rangeland Analysis Rangeland-Animal Relations Rangeland Management and Planning		FES/FW 445 FOR 346 RNG 341 RNG 351 RNG 352 RNG 421 RNG 441 RNG 442 RNG 490	Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU
<b>Vegetation ID</b> CCC course: Plant Identification/winter Plant Systematics Agrostology Flora of the Pacific Northwest Mycology Dendrology Landscape Plant Materials I: Decid & Conifers Landscape Plant Materials II: Shrubs Wildland Plant Identification	HOR 227      HOR 226 HOR 228	BOT 321 BOT 414 BOT 425 BOT 461 FES 241 HORT 226 HORT 228 RNG 353	Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU

<b>NR Core Requirements</b> (continued) <i>Complete one course per category</i>	<b>Clackamas Course</b>	<b>OSU Course</b>	<b>Notes</b>
<b>Wildlife Management</b> Principles of Fish & Wildlife Conservation Introductory Population Dynamics Applied Community and Ecosystem Ecology Wildlife in Agricultural Ecosystems Avian Conservation and Management Mammal Conservation and Management Wildlife Ecology Animal Behavior		FW 251 FW 320 FW 321 FW 435 FW 451 FW 458 FW 481 Z 350	Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU
<b>Ethics &amp; Philosophy</b> Ecosystems Science of the PNW Indians Anthropology, Health, and the Environment Ecological Anthropology Natural Resources and Community Values Anthropology of International Development Multicultural Perspectives in NR Transforming Environmental Conflicts Environmental Justice Environmental History of the United States Critical Thinking for NR Challenges Nature in Storytelling over the Centuries Environmental Ethics World View and Environmental Values Sustainability, Justice & Engagement		AG 301 ANTH 352 ANTH 477 ANTH 481 ANTH 482 FW 340 GEOG 241 GEOG 330 HST 481 NR 312 NR 380 PHL 440 PHL/REL 443 SUS 331	Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU
<b>Natural Resource Policy</b> Environmental Law Public Lands Policy & Management Forest Policy Forest Policy Analysis Fish & Wildlife Law and Policy Introduction to Ocean Law U.S. Energy Policy Environmental Politics and Policy International Environmental Politics & Policy		AEC 432 FES 486 FOR 460 FOR 461 FW 415 FW 422 PS 473 PS 475 PS 477	Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU
<b>Political Issues</b> Plagues, Pests, and Politics Endangered Spec, Society and Sustainability When Science Escapes the Lab The Politics of Climate Change Environmental Politics and Policy Science and Politics International Environmental Politics & Policy Wilderness Management		ENT/HORT 300 FW 350 NR 351 PS 455 PS 475 PS 476 PS 477 TRAL 352	Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU
<b>Economics</b> Intro to Environmental Economics & Policy Intro to Microeconomics	EC 201	AEC 250 ECON 201	Available online at OSU Available online at OSU

<b>NR Core Requirements</b> (continued) <i>Complete one course per category</i>	<b>Clackamas Course</b>	<b>OSU Course</b>	<b>Notes</b>
<b>Social Issues</b> Human Impacts on Ecosystems Human Ecology Issues in Natural Resource Conservation Global Crises in Resource Ecology Sustainability for the Common Good Climate Change, Water and Society Transforming Environmental Conflicts Resilience-Based Natural Resource Mgmt Global Resource Development When Science Escapes the Lab Oceans, Coasts & People Social Dimensions of Sustainability Rural Sociology Environmental Sociology Society and Natural Resources Social Dimensions of Sustainability Recreation Resource Management Outdoor Recreation on Public Lands Wilderness Management Nature, Eco, and Adventure Tourism Communities, Natural Areas, and Tourism Parks & Protected Areas Women and Natural Resources		BI 301 BI 348 FES 365 FW 325 GEOG 300 GEOG 240 GEOG 241 GEOG 430 GEOG 431 NR 351 OC 333 SOC 381 SOC 475 SOC 480 SOC 481 SUS 420 TRAL 251 TRAL 351 TRAL 352 TRAL 353 TRAL 354 TRAL 357 WGSS 440	 Available online at OSU Available online at OSU Available online at OSU  Available online at OSU Available online at OSU  Available online at OSU Available online at OSU Available online at OSU Available online at OSU  Available online at OSU  Available online at OSU Available online at OSU
<b>Spatial Analysis</b> Precision Agriculture GIS and Forest Engineering Applications Survey of Geographic Information Systems Foundations of Geospatial Science & GIS Geoscience I: GIS and Theory	GIS 201	CROP/HORT 414 FE 257 FW 303 GEOG 201 GEOG 360	Available online at OSU Available online at OSU Available online at OSU Available online at OSU Available online at OSU

## Courses Required for Forest Ecosystems Option

<b>Requirement</b> <i>Complete one course per category unless otherwise noted</i>	<b>Clackamas Course</b>	<b>OSU Course</b>	<b>Notes</b>
<b>Measurements</b>			
Field Methods in Ecological Restoration		BI 375	Available online at OSU
Field Methods in Plant Ecology		BOT 440	
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	
<b>Ecology Breath – choose two classes</b>			
Plant Systematics		BOT 321	Available online at OSU
Plant Ecology		BOT 341	
Flora of the Pacific Northwest		BOT 425	
Forest Watershed Management		FE 434	Available online at OSU
Ecological Restoration		FES/FW 445	
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	Available online at OSU
Wildlife Ecology		FW 481	
Scientific Methods for Analyzing NR Problems		NR 325	
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
<b>Technical Electives</b>			
Forest Surveying	ENGR 226 substitutes	FE 208	Available online at OSU
Forest Photogrammetry & Remote Sensing		FE 209	Available online at OSU
GIS & Forest Engineering Applications	FE 257	Available online at OSU	
Harvesting Operations	FE 370		Available online at OSU
Forestry Remote Sensing & Photogrammetry	FE 444	Available online at OSU	
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 Clackamas courses that fulfill Bacc Core requirements: [admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-clackamas-community-college](https://admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-clackamas-community-college)

<b>SKILLS COURSES</b>	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 @ Clackamas
<b>PERSPECTIVE COURSES</b>	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
<b>DPD COURSE</b>	Difference, Power, & Discrimination	Can be completed as part of major: see advisor
<b>SYNTHESIS COURSES</b>	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 [visitosu.oregonstate.edu/visit-campus](https://visitosu.oregonstate.edu/visit-campus) to schedule your personalized visit.

<b>Clackamas Community College Advising</b>	<a href="https://clackamas.edu/academics/academic-support/academic-advising-and-education-planning">clackamas.edu/academics/academic-support/academic-advising-and-education-planning</a>
<b>OSU College of Forestry Student Services Office</b>	541-737-1594 <a href="mailto:forestrystudentservices@oregonstate.edu">forestrystudentservices@oregonstate.edu</a>