#### TRANSFER GUIDE FOR OREGON STATE UNIVERSITY

#### Major Offered At:

**CORVALLIS** ECAMPUS

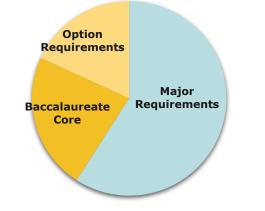
#### Central Oregon Community College

#### Natural Resources Major with Landscape Analysis Option

Natural Resources students are passionate about the world around them. They collaborate to preserve and protect the natural world for future generations. This option prepares students to work with Geographic Information Science (GIS) technology

in a Natural Resource field such as wildfire ecology, land use planning, ecological restoration, etc. In addition, students will earn an undergraduate certificate in GIScience.

### 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>More info forestry.oregonstate.edu/undergraduate-</u> programs/natural-resources/landscape-analysis

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

NR Core Requirements	COCC Course	OSU Course	Notes
Complete one course per category		050 000130	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	
Biology I			
General Biology I with Lab	BI 101	BI 101	Available online at OSU
Introduction to Biology I		BI 204	Available online at OSU
Principles of Biology: Cells	BI 221	BI 221	



<b>NR Core Requirements</b> (continued) Complete one course per category	COCC Course	OSU Course	Notes
Biology II			
General Biology II with Lab	BI 102	BI 102	Available online at OSU
Introduction to Biology II	DI 102	BI 205	Available online at OSU
		BI 222	Available offinite at 050
Principles of Biology: Organisms	BI 222	BI 222	
Biology III	DT 100	BT 102	
General Biology III with Lab	BI 103	BI 103	Available online at OSU
Introduction to Biology III		BI 206	Available online at OSU
Principles of Biology: Populations	BI 223	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			
COCC Course: GEOG 279 Weather & Climate	GEOG 279	GEOG LDT	Available online at OSU
Climate Science		ATS 201	
Global Change Biology		FW 345	Available online at OSU
Climatology		GEOG 323	Available online at OSU
Intro to Climate Change		SUS 103	Available online at 050
Earth Science		000 100	+
The Solid Earth		GEO 101	Available online at OSU
	G 201	GEO 101 GEO 201	Available Utilitie dt USU
Physical Geology			
Earth Systems Science	G 202	GEO 202	
Environmental Geology		GEO 221	Available online at OSU
Physical Geography		GEOG 102	Available online at OSU
Ecology			
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	MTH 112Z	MTH 112Z	Available online at OSU
Calculus for Mgmt, Life, and Social Science	MTH 241	MTH 241	Available online at OSU
Math for Mgmt, Life, and Social Science	MTH 245	MTH 245	Available online at OSU
Differential Calculus	MTH 251	MTH 251	Available online at OSU
	14111 231	MIII 251	
Statistics	CTAT 2427	CT 2427	Aveilable extine at OCU
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 212	FW 312	Available online at OSU
Systematics of Fishes		FW 316	Available online at OSU
Systematics of Mammals	FW 218	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
		FW 462	Available online at OSU
Ecosystems Services		GEOG 250	Available online at OSU
Land Use Planning for Sust. Communities			Available online at USU
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
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	
Scientific Methods for Analyzing NR Problems		NR 325	Available online at OSU
Scientific methods for Analyzing INR Problems			Available Utilitie at USU

<b>NR Core Requirements</b> (continued) Complete one course per category	COCC Course	OSU Course	Notes
Fish & Marine Sciences			
Intro to Marine Biology		BI 150	
		FW 302	Available online at OSU
Biology of Marine Mammals			
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
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	FOR 240A	FES 240	Available online at OSU
	FOR 240A		
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	
Topics in Wildland Fire	FOR 110 + FOR 210	FOR 346	Available online at OSU
Silviculture Principles		FOR 441	
Land & Water			
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		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			
Wildland Fire Ecology		FES 440	Available online at OSU
Ecological Restoration		FES/FW 445	Available online at OSU
Topics in Wildland Fire	FOR 110 + FOR 210	FOR 346	Available online at OSU
Rangeland Ecology and Management	101110 1101210	RNG 341	Available online at OSU
Range Ecology I – Grasslands		RNG 351	Available online at OSU
		RNG 352	Available online at OSU
Range Ecology II – Shrub Lands			
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			
COCC Course: General Botany	BI 202	BOT LDT	
Plant Systematics		BOT 321	
Agrostology		BOT 414	
Flora of the Pacific Northwest		BOT 425	
Mycology		BOT 461	Available online at OSU
	1	FES 241	Available online at OSU
	FOR 241A or 241B		
Dendrology	FOR 241A or 241B		
Dendrology Landscape Plant Materials I: Decid & Conifers	FOR 241A or 241B	HORT 226	Available online at OSU
Dendrology	FOR 241A or 241B		

<b>NR Core Requirements</b> (continued) Complete one course per category	COCC Course	OSU Course	Notes
Wildlife Management			
COCC Course: Animal Behavior	PSY LDT		
Principles of Fish & Wildlife Conservation	FW 251	FW 251	Available online at OSU
Introductory Population Dynamics	1 1 2 2 1	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 455	Available online at OSU
Biodiversity Conservation in Managed Forests		FES/FW 452	Available online at OSU
Mammal Conservation and Management		FW 458	
		FW 458 FW 481	Available online at OSU
Wildlife Ecology			Available online at OSU
Animal Behavior		Z 350	Available online at OSU
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
Political Issues			
Plagues, Pests, and Politics		ENT/HORT 300	Available online at OSU
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		11012 552	
Intro to Environmental Economics & Policy		AEC 250	Available online at OSU
Intro to Microeconomics	EC 201	ECON 201	Available online at OSU
		LCON 201	Available utilitie at 050

<b>NR Core Requirements</b> (continued) Complete one course per category	COCC 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		TRAL 251	Available online at OSU
Outdoor Recreation on Public Lands	FOR 251	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	Available online at OSU
Women and Natural Resources		WGSS 440	Available online at OSU
Spatial Analysis			
Waived for Landscape Analysis students			

# **Courses Required for Landscape Analysis Option**

Requirement Complete one course per category unless otherwise noted	COCC Course	OSU Course	Notes
Measurements			
Forest Surveying	FOR 230B	FE 208	Available online at OSU
Foundations of Geospatial Science & GIS	GEOG 265	GEOG 201	Available online at OSU
Geoscience I: GIS Systems & Theory GIS & Forest Engineering Applications	GEOG 266	GEOG 360 FE 257	Available online at OSU
Geo-visualization: Cartography		GEOG 370	Available online at OSU
Remote Sensing I: Principles & Applications Forestry Remote Sensing & Photogrammetry		GEOG 380 FE 444	Available online at OSU
GIS Electives – choose two courses GIS in Water Resources Precision Agriculture Internship Forest Photogrammetry & Remote Sensing Forest Route Surveying Unmanned Aircraft Systems Remote Sensing Forestry Remote Sensing & Photogrammetry Survey of Geographic Information Systems GIScience II: Analysis & Applications Geovisualization: Web Mapping Plan Prin and Pract for Resilient Communities GIS & Spatial Data Science GIScience III: Programming for Geo. Analysis Geospatial Perspectives Remote Sensing II: Digital Image Processing Soil Landscape Analysis	FOR 236 OR GEOG 285	CE 413 CROP/HORT 414 NR 410 FE 209 FE 310 FE 423 FE 444 FW 303 GEOG 361 GEOG 371 GEOG 451 GEOG 451 GEOG 460 GEOG 462 GEOG 464 GEOG 481 SOIL 468	Available online at OSU Available online at OSU
<b>NR Electives – 11-14 credits</b> Courses related to GI Science and Natural Resources			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 COCC courses that fulfill Bacc Core requirements: <u>admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-central-oregon-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 HHP 295 @ COCC
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	