#### TRANSFER GUIDE FOR OREGON STATE UNIVERSITY

#### Major Offered At:

**CORVALLIS** 

**ECAMPUS** 

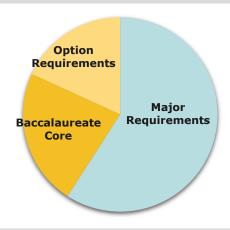
# Klamath Community College

#### **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.
- More info forestry.oregonstate.edu/undergraduateprograms/natural-resources/landscape-analysis

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

NR Core Requirements Complete one course per category	KCC 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			
General Biology I with Lab	BIO 101 & 101L	BI 101	Available online at OSU
Introduction to Biology I		BI 204	Available online at OSU
Principles of Biology: Cells	BIO 211 & 211L	BI 221	



NR Core Requirements (continued)	KCC Course	OSU Course	Notes
Complete one course per category  Biology II			
General Biology II with Lab	BIO 102 & 102L	BI 102	Available online at OSU
Introduction to Biology II	BIO 102 & 102L	BI 205	Available online at OSU
Principles of Biology: Organisms	BIO 213 & 213L	BI 222	Available offilite at 030
	BIO 213 & 213L	D1 222	
<b>Biology III</b> General Biology III with Lab	BIO 103 & 103L	BI 103	Available online at OSU
	BIO 103 & 103L		
Introduction to Biology III	DIO 212 0 2121	BI 206	Available online at OSU
Principles of Biology: Populations	BIO 212 & 212L	BI 223	
Chemistry		CU 121	Accellate audia a at OCH
General Chemistry I with Lab	CUE 224 0 CUE 2241	CH 121	Available online at OSU
General Chemistry (Majors) I with Lab	CHE 221 & CHE 221L	CH 231 & 261	Available online at OSU
Climate Science		1.70.004	
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 Science		1	
The Solid Earth		GEO 101	Available online at OSU
Physical Geology	GEL 201 & GEL 201L	GEO 201	
Earth Systems Science	GEL 202 & GEL 202L	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	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	STA 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	Available offille at 030
Planning for Sustainable Tourism		TRAL 450	
Scientific Methods for Analyzing NR Problems		NR 325	Available online at OSU
Scientific metrious for Analyzing NK Problems		INU DED	Available utilitie at USU

NR Core Requirements (continued)	KCC Course	OSU Course	Notes
Complete one course per category			
Fish & Marine Sciences 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	GSC 108 &GSC 108L	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
Forestry International Forestry Forest Biology Forest Ecology Forest Types of the Northwest Urban Forestry Wildland Fire Ecology Ecological Restoration Biodiversity Conservation in Managed Forests Agroforestry Topics in Wildland Fire Silviculture Principles	ENV 241 & ENV 241L	FE/FOR 456 FES 240 FES 341 FES 342 FES/HORT 350 FES 440 FES/FW 445 FES/FW 452 FES/NR 477 FOR 346 FOR 441	Available online at OSU
Land & Water 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		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	Available online at OSU  Available online at OSU
Soil Morphology and Classification  Range  Wildland Fire Ecology 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 440 FES/FW 445 FOR 346 RNG 341 RNG 351 RNG 352 RNG 421 RNG 441 RNG 442 RNG 490	Available online at OSU
Vegetation ID  Plant Systematics Agrostology Flora of the Pacific Northwest Mycology Dendrology Landscape Plant Materials I: Decid & Conifers Landscape Plant Materials II: Shrubs Wildland Plant Identification	ENV 141	BOT 321 BOT 414 BOT 425 BOT 461 FES 241 HORT 226 HORT 228 RNG 353	Available online at OSU

NR Core Requirements (continued) Complete one course per category	KCC Course	OSU Course	Notes
Wildlife Management Principles of Fish & Wildlife Conservation Introductory Population Dynamics Applied Community and Ecosystem Ecology Wildlife in Agricultural Ecosystems Avian Conservation and Management Biodiversity Conservation in Managed Forests Mammal Conservation and Management Wildlife Ecology		FW 251 FW 320 FW 321 FW 435 FW 451 FES/FW 452 FW 458 FW 481 Z 350	Available online at OSU
Animal Behavior  Ethics & Philosophy  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		AG 301 ANTH 352 ANTH 477 ANTH 481 ANTH 482 FW 340 GEOG 241 GEOG 330	Available online at OSU
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  Natural Resource Policy		HST 481 NR 312 NR 380 PHL 440 PHL/REL 443 SUS 331	Available online at OSU
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
Political Issues 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
Economics Intro to Environmental Economics & Policy Intro to Microeconomics	ARE 250 ECO 201	AEC 250 ECON 201	Available online at OSU Available online at OSU

NR Core Requirements (continued) Complete one course per category	KCC 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		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			
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

Courses Required for Landscape Analysis Option			
<b>Requirement</b> Complete one course per category unless otherwise noted	KCC Course	OSU Course	Notes
<b>Measurements</b> Forest Surveying		FE 208	Available online at OSU
Foundations of Geospatial Science & GIS Geoscience I: GIS Systems & Theory GIS & Forest Engineering Applications		GEOG 201 GEOG 360 FE 257	Available online at OSU  Available online at OSU  Available online at OSU
Geo-visualization: Cartography		GEOG 370 FE 444	Available online at OSU
<b>Choose 1</b> Forestry Remote Sensing & Photogrammetry Remote Sensing I: Principles & Applications		GEOG 380	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		CE 413 CROP/HORT 414 NR 410 FE 209 FE 310 FE 423 FE 444 FW 303 GEOG 361 GEOG 371 GEOG 451 GEOG 460 GEOG 462 GEOG 464 GEOG 481 SOIL 468	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
NR Electives Choose 11-14 credits related to NR and GIS			

## 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 KCC courses that fulfill Bacc Core requirements: <u>admissions.oregonstate.edu/baccalaureate-core-course-</u>equivalencies-klamath-community-college

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 @ KCC
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: ECO 201 or ARE 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

## **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	<u>forestrystudentservices@oregonstate.edu</u>