TRANSFER GUIDE FOR OREGON STATE UNIVERSITY

Major Offered At: CORVALLIS

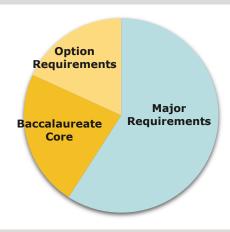
Umpqua Community College

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 | 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 Environmental Writing Professional 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 WR 462 WR 466 | Available online at OSU |
| 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 | 011 221 | 0.1.231 0.201 | 7. Valiable of line at 000 |
| Climate Science | ATS 201 | ATS 201 | Available online at OSU |
| Global Change Biology | A13 201 | FW 345 | Available offilite at 030 |
| | | GEOG 323 | Available online at OSU |
| Climatology | | | |
| Intro to Climate Change | | SUS 103 | Available online at OSU |
| Soil Science | | CCC 20E | Available online at OCU |
| Soil Science | | CSS 205 | Available online at OSU |
| Principles of Soil Science | COTI 205 0 COTI 225 | CSS 305 | |
| Soil Science with Lab | SOIL 205 & SOIL 206 | SOIL 205 & 206 | |
| Soil Science with Forest Soils Lab | SOIL 205 & FOR/SOIL 206 | SOIL 205 & FOR 206 | |
| 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 |
| Mathematics | | | |
| 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 | Available online at OSU |
| Biology of Insects | | Z 365 | Available offille at 030 |
| Herpetology | | Z 473 | Available online at OSU |
| nerpetology Aquatic Entomology | | Z 473 | Available offille at 030 |
| | | L 4// | |
| Environ. Assessment & Planning | | EEC/EW 44F | Available orline at OCU |
| 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 | 1 |
| 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 |
| | i | TRAL 456 | |
| Planning for Sustainable Recreation | | TRAL 456 | |

| NR Core Requirements (continued) | 1100 0 | 0011.0 | |
|---|---------------|--|--|
| 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 | | FW 465 | |
| Fish Ecology | | FW 473 | Available online at OSU |
| Wildlife Ecology | | 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 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 | | | |
| UCC Course: Water Resource Science | 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 | |
| International Water Resource Management | | GEOG 441 | Available online at OSU |
| Desert Water Shed Management | | RNG 355 | 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 | | FEC/EW 445 | Available online et OCU |
| 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 RNG 352 | Available online at OSU |
| Range Ecology II – Shrub Lands Wildland Restoration and Ecology | | RNG 352 RNG 421 | Available online at OSU Available online at OSU |
| | | RNG 421 RNG 441 | Available online at OSU Available online at OSU |
| Rangeland Analysis Rangeland-Animal Relations | | RNG 441 RNG 442 | Available online at OSU |
| Rangeland Management and Planning | | RNG 442 | Available online at OSU |
| Vegetation ID | | INIO 450 | Available offilite at 030 |
| UCC Course: Flowering Plants of SW Oregon | BOT 204 | BOT LDT | |
| Plant Systematics | 501 207 | BOT 321 | |
| Agrostology | | BOT 414 | |
| | | | Available online at OSII |
| | FOR/NR 241 | | |
| | 1 0191410 271 | | |
| | | | |
| Landscape Flanc Platerials II. Sill abs | I | RNG 353 | , wanabie offine at 050 |
| Flora of the Pacific Northwest Dendrology Landscape Plant Materials I: Decid & Conifers Landscape Plant Materials II: Shrubs | FOR/NR 241 | BOT 425 FES 241 HORT 226 HORT 228 | Available online at OSU Available online at OSU Available online at OSU 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 Introductory Population Dynamics Applied Community and Ecosystem Ecology Wildlife in Agricultural Ecosystems Avian Conservation and Management Mammal Conservation and Management Wildlife Ecology Animal Behavior | NR 251 | FW 251 FW 320 FW 321 FW 435 FW 451 FW 458 FW 481 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 Ecological Anthropology Natural Resources and Community Values Anthropology of International Development | | ANTH 352 ANTH 477 ANTH 481 ANTH 482 | Available online at OSU Available online at OSU Available online at OSU Available online at OSU |
| Multicultural Perspectives in NR Transforming Environmental Conflicts Environmental Justice Environmental History of the United States | | FW 340 GEOG 241 GEOG 330 HST 481 | Available online at OSU Available online at OSU Available online at OSU Available online at OSU |
| Critical Thinking for NR Challenges Nature in Storytelling over the Centuries Environmental Ethics World View and Environmental Values Sustainability, Justice & Engagement | | 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 |
| Natural Resource Policy | | | |
| Environmental Law Rural Development Economics & Policy Public Lands Policy & Management Forest Policy Natural Resources Policy and Law | | AEC 432 AEC 454 FES 486 FOR 460 FOR 462 | Available online at OSU Available online at OSU Available online at OSU |
| Fish & Wildlife Law and Policy Introduction to Ocean Law U.S. Energy Policy Environmental Politics and Policy International Environmental Politics & Policy | | FW 415 FW 422 PS 473 PS 475 PS 477 | Available online at OSU |
| Political Issues Plagues, Pests, and Politics Natural Resource Policy and Law | | ENT/HORT 300 FOR 462 | Available online at OSU |
| Endangered Spec, Society and Sustainability When Science Escapes the Lab | | FW 350 NR 351 | Available online at OSU |
| The Politics of Climate Change Environmental Politics and Policy Science and Politics | | PS 455 PS 475 PS 476 | Available online at OSU Available online at OSU Available online at OSU |
| International Environmental Politics & Policy Wilderness Management | | PS 477 TRAL 352 | Available online at OSU Available online at OSU Available online at OSU |
| Economics | | AFC 3F0 | |
| Intro to Environmental Economics & Policy Intro to Microeconomics | ECON 201 | AEC 250 ECON 201 | Available online at OSU Available online at OSU |

| Requirement Complete one course per category unless otherwise noted | 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 | | GEOG 201 | Available online at OSU |
| Geoscience I: GIS and Theory | | GEOG 360 | Available online at OSU |

Courses Required for Forest Ecosystems Option

| Requirement | | | |
|--|----------------|------------|---------------------------|
| Complete one course per category unless | UCC Course | OSU Course | Notes |
| otherwise noted | | | 113333 |
| 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 | Available crimite at ese |
| Ecology Breath – choose two classes | | 101(111 | |
| Plant Systematics | | BOT 321 | |
| Plant Ecology | | BOT 341 | Available online at OSU |
| Flora of the Pacific Northwest | | BOT 425 | Available offilite at 050 |
| Forest Watershed Management | | FE 434 | |
| Ecological Restoration | | FES/FW 445 | Available online at OSU |
| Agroforestry | | FES/NR 477 | Available offiline at 030 |
| 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 offilite at 050 |
| Wildlife Ecology | | FW 481 | Available online at OSU |
| Scientific Methods for Analyzing NR Problems | | NR 325 | Available offiline at 030 |
| Range Ecology I – Grasslands | | RNG 351 | Available online at OSU |
| Range Ecology II – Shrublands | | RNG 351 | 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 – choose one | | 2 173 | Available offine at 656 |
| Forest Surveying | FOR/SUR 161 | FE 208 | Available online at OSU |
| Forest Photogrammetry & Remote Sensing | FOR/SUR 209 | FE 209 | , wands on the de ooo |
| Harvesting Operations | . 5., 55., 25. | FE 370 | |
| Forestry Remote Sensing & Photogrammetry | | FE 444 | |
| Arboriculture | | FES 447 | 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 |
| 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 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 |