#### TRANSFER GUIDE FOR OREGON STATE UNIVERSITY

#### Major Offered At:

**CORVALLIS** ECAMPUS

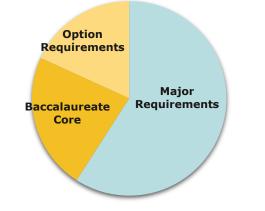
#### Portland Community College

#### 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                         | PCC Course | OSU Course | Notes                   |
|--|------------|------------|-------------------------|
| Complete one course per category             | FCC Course | 030 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                       |            |            |                         |
| Intro to Communication Theory                |            | COMM 321   |                         |
| Small Group Problem Solving                  | COMM 215   | COMM 322   |                         |
| Communication in Organizations               |            | COMM 324   |                         |
| Intercultural Communication                  | COMM 140   | 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 in Fish & Wildlife Sciences   |            | FW 489     | Available online at OSU |
| Critical thinking for NR Challenges          |            | NR 312     |                         |
| Environmental Interpretation                 |            | TRAL 493   | Available online at OSU |
| Technical Writing                            | WR 227     | WR 327     | Available online at OSU |
| Science Writing                              |            | WR 362     | Available online at OSU |
| Environmental Writing                        |            | WR 462     |                         |
| Professional Writing                         |            | WR 466     |                         |
| 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 211     | BI 221     |                         |



| NR Core Requirements (continued)   | PCC Course | OSU Course           | Notes  |
|--|------------|----------------------|--|
| Complete one course per category   |            |                      |  |
| <b>Biology II</b><br>General Biology II with Lab<br>Introduction to Biology II | BI 102     | BI 102<br>BI 205     | Available online at OSU<br>Available online at OSU |
| Principles of Biology: Organisms   | BI 212     | BI 222               |  |
| Biology III  |            |                      |  |
| 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 213     | BI 223               |  |
| Chemistry  |            |                      |  |
| General Chemistry I with Lab   | CH 104     | 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  | G 184      | 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  |            |                      |  |
| The Solid Earth  |            | GEO 101              | Available online at OSU                            |
| Physical Geology   | GS 106     | GEO 201              |  |
| Earth Systems Science  | G 201      | GEO 202              |  |
| Environmental Geology  | G 202      | 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 112    | MTH 112              | 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<br>Differential Calculus               | MTH 251    | MTH 245<br>MTH 251   | Available online at OSU<br>Available online at OSU |
| Statistics   | MIII 231   | MIII 231             | Available offinite at 030                          |
| Principles of Statistics   | MTH 243    | ST 201               | Available online at OSU                            |
| Intro to Statistical Methods   | 1111 245   | ST 351               | Available online at OSU                            |
| Animal ID  |            | 51 551               |  |
| 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   |            |                      |  |
| 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             |  |
| 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<br>TRAL 456  | Available online at OSU                            |
| Planning for Sustainable Recreation<br>Planning for Sustainable Tourism        |            | TRAL 456<br>TRAL 457 |  |
|  | I          |                      | J  |

| <b>NR Core Requirements</b> (continued)<br>Complete one course per category | PCC Course | OSU Course   | Notes                     |
|---|------------|--------------|---------------------------|
| Fish & Marine Sciences  |            |              |                           |
| Intro to Marine Biology   | BI 142     | BI 150       |                           |
| Biology of Marine Mammals   | DI 172     | 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 108     | OC 201       | Available online at OSU   |
| Coastal Oceanography  |            | OC 332       |                           |
| Forestry  |            |              |                           |
| International Forestry  |            | FE/FOR 456   |                           |
| Forest Biology  | BI 141     | FES 240      | Available online at OSU   |
| 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   | Available online at 050   |
| Topics in Wildland Fire   |            | FOR 346      | Available online at OSU   |
|   |            | FOR 346      | Available offinite at 050 |
| Silviculture Principles   |            | FOR 441      |                           |
| Land & Water  | DI 142     | DILDT        |                           |
| Fresh Water Biology   | BI 143     | BI LDT       | Available suline at OCU   |
| 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 147      | 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   |            |              |                           |
| Wildland Fire Ecology   |            | FES 440      | Available online at OSU   |
| Ecological Restoration  |            | FES/FW 445   | Available online at OSU   |
| Topics in Wildland Fire   |            | FOR 346      | Available online at OSU   |
|   |            | RNG 341      | Available online at OSU   |
| Rangeland Ecology and Management  |            |              |                           |
| 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      |                           |
| Agrostology   |            | BOT 414      |                           |
| Flora of the Pacific Northwest  |            | BOT 425      |                           |
| Dendrology  |            | FES 241      | Available online at OSU   |
| Landscape Plant Materials I: Decid & Conifers                               | HOR 226    | HORT 226     | Available online at OSU   |
|   | 1 1100 220 |              | Available online at OSU   |
| Landscape Plant Materials II: Shrubs  | HOR 228    | HORT 228     | Available utilitie at 050 |

| <b>NR Core Requirements</b> (continued)<br>Complete one course per category | PCC Course | OSU Course         | Notes                   |
|---|------------|--------------------|-------------------------|
| Wildlife Management<br>Principles of Fish & Wildlife Conservation           | BI 145     | FW 251             | Available online at OSU |
| Introductory Population Dynamics  |            | 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 451             | Available online at OSU |
| Biodiversity Conservation in Managed Forests                                |            | FES/FW 452         | 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 |
| 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             | Available online at 050 |
| 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   |            | 505 551            |                         |
| Environmental Law   |            | AEC 432            | Available online at OSU |
| Rural Development Economics & Policy  |            | AEC 452<br>AEC 454 | Available online at OSU |
| Public Lands Policy & Management  |            | FES 486            | Available online at OSU |
| Forest Policy   |            | FOR 460            | Available offine at 030 |
| Natural Resources Policy and Law  |            | FOR 460            |                         |
| Fish & Wildlife Law and Policy  |            | FW 415             | Available online at OSU |
| Introduction to Ocean Law   |            | FW 413<br>FW 422   | Available online at OSU |
|   |            | PS 473             | Available online at OSU |
| U.S. Energy Policy<br>Environmental Politics and Policy                     |            | PS 475<br>PS 475   | Available online at OSU |
| International Environmental Politics & Policy                               |            | PS 475<br>PS 477   | Available online at OSU |
| Political Issues  |            | PS 477             | Available online at USU |
|   |            | ENT/LIOPT 200      | Available enline at OCU |
| Plagues, Pests, and Politics  |            | ENT/HORT 300       | Available online at OSU |
| Natural Resource Policy and Law   |            | FOR 462            |                         |
| 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 |
| Economics   |            |                    |                         |
| Intro to Environmental Economics & Policy                                   |            | AEC 250            | Available online at OSU |
| Intro to Microeconomics   | EC 201     | ECON 201           | Available online at OSU |

| <b>NR Core Requirements</b> (continued)<br>Complete one course per category | PCC 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   |                         |
| Women and Natural Resources   |            | WGSS 440   | Available online at OSU |
| Spatial Analysis  |            |            |                         |
| Waived for Landscape Analysis students                                      |            |            |                         |

# **Courses Required for Landscape Analysis Option**

| <b>Requirement</b><br>Complete one course per category unless<br>otherwise noted   | PCC Course | OSU Course  | Notes   |
|--|------------|---|---|
| Measurements   |            |   |   |
| Forest Surveying   | ENGR 226   | FE 208  | Available online at OSU   |
| Foundations of Geospatial Science & GIS  | GEO 264    | GEOG 201  | Available online at OSU   |
| Civil Engr: Geospatial Info & GIS  |            | CE 202  |   |
| GIS & Forest Engineering Applications  |            | FE 257  |   |
| Geoscience I: GIS Systems & Theory   | GEO 265    | GEOG 360  | Available online at OSU   |
| Geo-visualization: Cartography   |            | GEOG 370  | Available online at OSU   |
| Forestry Remote Sensing & Photogrammetry   |            | FE 444  |   |
| Remote Sensing I: Principles & Applications  |            | GEOG 380  | Available online at OSU   |
| GIS Electives – choose two courses<br>GIS in Water Resources<br>Precision Agriculture<br>Internship<br>Forest Photogrammetry & Remote Sensing<br>Forest Route Surveying<br>Unmanned Aircraft Systems Remote Sensing<br>Forestry Remote Sensing & Photogrammetry<br>Survey of Geographic Information Systems<br>GIScience II: Analysis & Applications<br>Geovisualization: Web Mapping<br>Plan Prin and Pract for Resilient Communities<br>GIScience III: Programming for Geo. Analysis |            | CE 413<br>CROP/HORT 414<br>NR 410<br>FE 209<br>FE 310<br>FE 423<br>FE 444<br>FW 303<br>GEOG 361<br>GEOG 371<br>GEOG 451<br>GEOG 462 | Available online at OSU<br>Available online at OSU<br>Available online at OSU<br>Available online at OSU<br>Available online at OSU |
| GIScience IV: Spatial Modeling<br>Geospatial Perspectives<br>Geo-visualization: Geo-visual Analytics<br>Remote Sensing II: Digital Image Processing<br>Soil Landscape Analysis<br><b>NR Electives – 11-14 credits</b><br>Courses related to GIScience and NR   |            | GEOG 463<br>GEOG 464<br>GEOG 472<br>GEOG 481<br>SOIL 468  | 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 PCC courses that fulfill Bacc Core requirements: <u>admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-portland-community-college</u>

| SKILLS COURSES         | Math<br>Writing I<br>Writing II<br>Speech (Writing III)<br>Fitness   | Completed as part of major: MTH 112 or higher<br>WR 121. Required to transfer.<br>Can be completed as part of major: see advisor<br>Choose one course from Bacc Core link above<br>HE 295 and PE 295 @ PCC  |
|------------------------|--|---|
| PERSPECTIVE<br>COURSES | Biological Science<br>Physical Science<br>Additional Biological or Physical Science<br>Cultural Diversity<br>Literature and the Arts<br>Social Processes and Institutions<br>Western Culture | Completed as part of major: Biology I<br>Completed as part of major: Chemistry<br>Completed as part of major: Biology II<br>Choose one course from Bacc Core link above<br>Choose one course from Bacc Core link above<br>Completed as part of major: EC 201<br>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<br>Science, Technology, & Society   | Upper division course, take through OSU<br>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.

| Portland Community College                             | pcc.edu/advising/  |
|--|--|
| OSU College of Forestry Prospective<br>Student Advisor | Autumn VanderLinden<br>541-737-9135<br>Autumn.VanderLinden@oregonstate.edu |