

**NATURAL RESOURCES B.S. DEGREE
Specialization Option Checklist:
Forest Ecosystems**

Date Prepared: By:

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| **Student Name** | **Student ID#** | **Current Institution/Campus/Major** |
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| COMMENTS: |

\*= Baccalaureate Core / ^ = WIC (Writing Intensive Course / + = Core Ed (for students admitted in Summer 2025 and onward)

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| **FOREST ECOSYSTEMS SPECIALIZATION REQUIREMENTS** |
| **MEASUREMENT AND ANALYSIS (4 - 5 credits ) CHOOSE ONE** | **Fulfilled by:** | **Note #** |
|  | Field Methods in Ecological Restoration (4) | BI 375 |  |  |
|  | Field Methods in Plant Ecology (4) | BOT 440 |  |  |
|  | Precision Agriculture (4) | CROP/HORT 414 |  |  |
|  | Forest Surveying (4) | FE 208 |  |  |
|  | GIS and Forest Engineering Applications (3) | FE 257 |  |  |
|  | Forest Mensuration (5) | FOR 321 |  |  |
|  | Foundations of Geospatial Science and GIS (4) | GEOG 201+\* |  |  |
|  | GIScience I: Geographic Information Systems and Theory (4) | GEOG 360 |  |  |
|  | Quantitative Geospatial Analysis and Modeling (5) | GEOG 361 |  |  |
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| **ECOLOGICAL FOUNDATIONS (23 credits) REQUIRED** | **Fulfilled by:** | **Note #** |
|  | Forest Biology (4) | FES 240+\* |  |  |
|  | Forest Ecology (3) | FES 341 |  |  |
|  | Wildland Fire Ecology (3) | FES 440 |  |  |
|  | Biodiversity Conservation in Managed Forests (3) | FES/FW 452 |  |  |
|  | Wildland Fire Science and Management (4) | FOR 436 |  |  |
|  | Silviculture Principles (4) | FOR 441 |  |  |
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| **ECOLOGY BREADTH (6-4 credits) Choose TWO courses from the following)** | **Fulfilled by:** | **Note #** |
|  | Plant Systematics (4) | BOT 321 |  |  |
|  | Plant Ecology (4) | BOT 341 |  |  |
|  | Flora of the Pacific Northwest (3) | BOT 425 |  |  |
|  | Tropical Ecology and Conservation (3) | ENSC 341 |  |  |
|  | Forest Watershed Management (4) | FE 434 |  |  |
|  | Dendrology (3) | FES 241 |  |  |
|  | Forest Entomology (3) | FES 412 |  |  |
|  | Ecological Restoration (4) | FES/FW 445 |  |  |
|  | Forest Pathology (3) | FOR/BOT 413 |  |  |
|  | Principles of Fish and Wildlife Conservation (3) | FW 251 |  |  |
|  | Ornithology (3) | FW 311 |  |  |
|  | Ichthyology (3) | FW 315 |  |  |
|  | Mammalogy (3) | FW 317 |  |  |
|  | Introduction to Population Dynamics (4) | FW 320 |  |  |
|  | Applied Community and Ecosystems Ecology (3) | FW 321 |  |  |
|  | Herpetofauna Conservation and Management (3) | FW 448 |  |  |
|  | Avian Conservation and Management (3) | FW 451 |  |  |
|  | Freshwater Ecology and Conservation (4) | FW 456 |  |  |
|  | Mammal Conservation and Management (4) | FW 458 |  |  |
|  | Fish Ecology (4) | FW 473 |  |  |
|  | Wildlife Ecology (4) | FW 481 |  |  |
|  | Scientific Methods for Analyzing Natural Resource Problems (3) | NR 325 |  |  |
|  | Ecology of Grassland Ecosystems (3) | RNG 351 |  |  |
|  | Ecology of Shrubland Ecosystems (3) | RNG 352 |  |  |
|  | Riparian Ecohydrology and Management (3) | RNG 455 |  |  |
|  | Rangeland Management Planning – Principles and Processes (4) | RNG 491^ |  |  |
|  | Ecosystems of Wildland Soils (3) | SOIL 366 |  |  |
| ***OR*** Soil Systems and Plant Growth (4) | SOIL 388 |
| ***OR*** Soil Morphology and Classification (4) | SOIL 466 |
|  | Herpetology (3) | Z 473 |  |  |
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| **TECHNICAL ELECTIVES (6-8 credits) Choose TWO courses from the following** | **Fulfilled by:** | **Note #** |
|  | Forest Engineering Problem Solving and Technology (3) | FE 102 |  |  |
|  | Forest Surveying (4) | FE 208 |  |  |
|  | GIS and Forest Engineering Applications (3) | FE 257 |  |  |
|  | Harvesting Operation (4) | FE 370 |  |  |
|  | Forest Remote Sensing and Photogrammetry (4) | FE 444 |  |  |
|  | Arboriculture (4) | FES 447 |  |  |
|  | Computing Applications in Forestry (3) | FOR 112 |  |  |
|  | Foundations of Geospatial Science and GIS (4) | GEOG 201+\* |  |  |
|  | GIScience I: Geographic Information Systems and Theory (4) | GEOG 360 |  |  |
|  | General Physics (5) | PH 201+\* |  |  |
|  | Introduction to Statistical Methods (4) | ST 351 |  |  |
| ***OR*** Statistical Methods (4) | ST 352 |
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|  | Note: Up to 6 credits of appropriate internships, projects or study abroad may be used to fulfill credit requirements in this option as approved by petition. |

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| **A Specialization Option is required for the Natural Resources major. (Minimum of 37 credits with at least 20 of those being upper division credits.) The minimum required GPA for the specialization is 2.25. This option is available on the Corvallis Campus and Ecampus.** |

Revised 3.2025 NR Curriculum version 4.0 effective Summer 2025 onward.