

Name: \_\_\_\_\_

ID#: \_\_\_\_\_



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## 2023-2024: Natural Resources Curriculum Checklist (NR3)

Students who graduate with a BS degree in Natural Resources from Oregon State University will learn to integrate technical field or laboratory skills with analytical skills to solve critical natural resource problems. The curriculum is designed to help students acquire knowledge about a range of natural resource issues, work in interdisciplinary teams, and deal with social and political aspects of resource management.

Students will acquire knowledge in biophysical sciences, social sciences, math and statistics. They will learn holistic resource management approaches that emphasize the interconnectedness of humans and the environment. In addition, students will develop a toolbox of resource management skills such as communication, collaboration, analysis, assessment and planning. They will explore the conservation and management of key resources which include fish and wildlife, land and water resources, and a wide range of ecosystems from forests to rangelands. A disciplinary depth in a focused area is developed through a required specialization option. Students may choose from a number of pre-approved options, or create an individualized (student designed) specialization option.

A specialization "option" is a *required* part of the Natural Resources major that allows the students to develop depth and focus in a particular area of natural resource management. All specialization options are required to have a minimum of 37 credits with at least 20 upper division (300-400 level) courses included.

Natural Resources Requirements:

- OSU Graduation Requirements
- Baccalaureate Core
- Natural Resource Major Requirements
- Specialization Option: *minimum of 37 credits with at least 20 upper division (300-400 level) courses*
- The Natural Resources Specialization Option will have a minimum GPA requirement of 2.25.
- Only two courses used to complete the Natural Resources major requirements may be taken S/U

OSU Graduation Requirements:

*Students pursuing a degree at OSU must meet the following requirements in addition to program and college requirements.*

- 180—total number of credits required to graduate from OSU
- 60—number of upper division credits required (300-400 level courses)
- 45 of last 75 credits must be OSU credits
- Maintain a 2.0 or better university GPA

## Checklist only lists OSU-Cascades Courses

| BACCALAUREATE CORE  |  |           |       |
|---|--|-----------|-------|
| Link to OSU Baccalaureate Core Courses<br><a href="https://catalog.oregonstate.edu/earning-degrees/bcc/">https://catalog.oregonstate.edu/earning-degrees/bcc/</a> |  |           |       |
| Skills  |  | Fulfilled | Grade |
| Lifetime Fitness (2)  | HHS 231  |           |       |
| Lifetime Fitness II (1)   | Physical Activity Course (PAC)   |           |       |
| Mathematics (4)   | <b>Fulfilled By Major</b>  |           |       |
| Writing I (4)   | WR 121Z  |           |       |
| Writing II (4)  | Visit Bacc Core Link above   |           |       |
| Speech (4)  | Visit Bacc Core link above   |           |       |
| Perspectives: No more than two classes from any one subject area may be used to fulfill perspectives requirement  |  |           |       |
| Cultural Diversity (3-4)  | Visit Bacc Core link above   |           |       |
| Literature & Arts   | Visit Bacc Core link above   |           |       |
| Soc. Processes & Inst, (3)  | <b>Fulfilled by Major (Econ 201)</b>   |           |       |
| Western Culture   | Visit Bacc Core link above   |           |       |
| Physical Science  | <b>Fulfilled by Major</b>  |           |       |
| Biological Science  | <b>Fulfilled by Major</b>  |           |       |
| Additional Phys or Bio Science  | <b>Fulfilled by Major</b>  |           |       |
| Difference, Power, & Discrim.   | <b>Fulfilled by GEOG 333 (if selected for Ethics and Philosophy)</b>                   |           |       |
| Synthesis: The two courses used to fulfill Synthesis requirement may not be in the same department  |  |           |       |
| Contemporary Global Issues  | <b>Fulfilled by FES 365(Social Issues) or SUS 350 (Env. Assessment &amp; Planning)</b> |           |       |
| Science, Tech & Society   | <b>Fulfilled by Major (FES 485)</b>  |           |       |
| Writing Intensive Course  |  |           |       |
| WIC   | <b>ENSC 479 recommended can be used in Specialization Option</b>                       |           |       |

| NATURAL RESOURCES MAJOR REQUIREMENTS<br>2023/2024 Curriculum (NR3)   |  |           |       |
|--|--|-----------|-------|
| IMPORTANT: COURSES CAN'T DOUBLE COUNT IN THIS SECTION  |  |           |       |
| Interdisciplinary Foundations (13 credits) Required  |  | Fulfilled | Grade |
| FES 485(3) Consensus and Natural Resources   |  |           |       |
| NR 201(3) Managing NR for the Future   |  |           |       |
| NR 202 (3) Natural Resource Problems and Solutions   |  |           |       |
| NR 455(4) NR Decision Making (Capstone) (prereq senior standing, FES 485 + WIC course)   |  |           |       |
| Advanced Communication (choose one)  |  |           |       |
| COMM 321(3); COMM 322 (3); COMM 324(3); COMM 326(3); COMM 328(3); COMM 385; COMM 440(3)  |  |           |       |
| Biophysical Science  |  | Fulfilled | Grade |
| Biology (choose one sequence)  |  |           |       |
| [BI 101 (4), BI 102 (4), BI 103(4)] or [BI 221(4), BI 222(4), BI 223 (4)] *Bio 200 level preferred*(Co/prereq for BI221 is Chem 121 or Chem 231/261) |  |           |       |
| Chemistry (choose one)   |  |           |       |
| CHEM 121(5) or CHEM 231/261(5) General Chemistry (Co/prereq MTH 111 or higher)   |  |           |       |
| Climate Change   |  |           |       |
| ATS 201(4) Climate Science   |  |           |       |
| Earth Science <u>OR</u> Soil Science   |  |           |       |
| GEO 221 (4) Environmental Geology  |  |           |       |
| Ecology (choose one)   |  |           |       |
| BI 370(3) Ecology (prereq BI 221-223) or FES 341(3) Forest Ecology (prereq BI 221-223 or BI 211-213)   |  |           |       |

| Mathematics and Statistics (8)   | Fulfilled | Grade |
|--|-----------|-------|
| Mathematics (choose one)   |           |       |
| MTH 112Z (4) Elementary Functions or MTH 241(4) Calculus for Mgmt, Life & Social Sci or MTH 245(4) Mathematics for Mgmt, Life & Social Sci or MTH 251(4) Differential Calculus                 |           |       |
| Statistics (choose one)  |           |       |
| ST 243Z (4) Principles of Statistics or ST 351(4) Intro. to Statistical Methods  |           |       |
| Resource Management  | Fulfilled | Grade |
| Animal ID (choose one)   |           |       |
| FW 312(3) Systematics of Birds or FW 318(3) Systematics of Mammals or Z 477(4) Aquatic Entomology (BI 221-223)   |           |       |
| Environmental Assessment and Planning (choose one)   |           |       |
| FES 445(4) Ecological Restoration or SUS 304(4) Sustainability Assessment or SUS 350 (4) Sustainable Communities   |           |       |
| Fisheries and Marine Science (choose one)  |           |       |
| FW 320(4) Intro to Population Dynamics (prereq BI 370 or instructor approval) or FW 323(3) Mgmt of Pacific Salmon or FW 481(3) Wildlife Ecology (prereq BI 370 or instructor approval)         |           |       |
| Forestry (choose one)  |           |       |
| FES 341(3) Forest Ecology or FES 342(3) Forest Types of the Northwest or FES 440(3) Wildland Fire Ecology or FES 445(4) Ecological Restoration   |           |       |
| Land & Water (choose one)  |           |       |
| GEOG 340 (3) Intro to Water Science or RNG 455(4) Riparian Ecohydrology & Mgmt or FW 326 (3) Integrated Watershed Management   |           |       |
| Range (choose one)   |           |       |
| FES 440(3) Wildland Fire Ecology or FES 445(4) Ecological Restoration or RNG 341(3) Rangeland Ecology Mgmt   |           |       |
| Vegetation ID  |           |       |
| RNG 353(4) Wildland Plant Identification   |           |       |
| Wildlife Management  |           |       |
| FW 251(3) Principles of F&W Conservation or FW 320(4) Intro to Population Dynamics (prereq BI 370 or instructor approval) or FW 481(3) Wildlife Ecology (prereq BI 370 or instructor approval) |           |       |
| Social and Political Dimensions  | Fulfilled | Grade |
| Ethics and Philosophy (Choose one)   |           |       |
| GEOG 333 (3) Environmental Justice or ANTH 352(3) Anthropology, Health and Environment   |           |       |
| Natural Resource Policy (Choose one)   |           |       |
| PS 475(4) Environmental Politics & Policy or GEOG 340(3) Intro to Water Science  |           |       |
| Political Issues (Choose one)  |           |       |
| FW 350 (3) Endangered Species, Society & Sustainability or PS 475(4) Environmental Politics & Policy   |           |       |
| Economics  |           |       |
| ECON 201(4) Intro to Microeconomics  |           |       |
| Social Issues (choose one)   |           |       |
| FES 365 (3) Issues In NR Conservation or SOC 480 (3) Environmental Sociology or SUS 420 (3) Social Dimensions of Sustainability or TRAL 353 (4) Nature, Eco and Adventure Tourism              |           |       |
| Spatial Analysis   | Fulfilled | Grade |
| GEOG 360 (4) GISCIENCE I: GIS & Theory   |           |       |

## Additional Requirement- AREA OF SPECIALIZATION (37 Credits)

A specialization “option” is a **REQUIRED** part of the Natural Resources major that allows the students to develop depth and focus in a particular area of natural resource management. All specialization options are required to have a minimum of 37 credits with at least 20 upper division (300-400 level) credits included. Courses used to complete above major requirements can’t double count in option.

OSU-Cascades- Only offers the Fish & Wildlife Conservation option. Those interested in another option can choose an option available through ecampus or work with the Department Lead to create an Individualized Specialization Option (ISO).

### Ecampus options:

- Conservation Law Enforcement
- Ecological Restoration
- Human Dimensions in Natural Resources
- Landscape Analysis
- Natural Resource Education
- Policy and Management
- Urban Forest Landscapes
- Wildland Fire Ecology

Use [Natural Resources Advising Guide](#) to research Ecampus Options

**ISO-** The Individualized Specialty Option is a student designed option that allows a student to tailor the academic program to specific goals or interests related to natural resource management. This is often a good choice for students who have a significant amount of relevant transfer work or those who have a specific career goal that they are working toward. In consultation with NR Department Lead, students will develop a written [proposal](#) for a program of study that meets their goals as well as academic requirements. The proposal is submitted to the Natural Resources Program Director in Corvallis for approval. This plan should be submitted at least 6 terms prior to the planned graduation term.

### ISO Requirements:

- Minimum of 37 credits of coursework with at least 20 upper division (300-400 level) credits included
- Approx. 10-13 classes
- Courses used to complete NR major requirements can’t double count in option
- ISO petition must be submitted 6 terms before graduation.
- Petition should be a professionally written document which consists of the proposed program of study and a clear rationale of the courses chosen
- 1-2 page essay attached to petition form addressing the GOAL of your program of study and Employment Opportunities