

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

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



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## 2020-2021: 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 40 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 40 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)
- 124—maximum number of credits that will transfer from a community college
- 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-Cascades Bacc Core List <a href="http://osucascades.edu/osu-cascades-baccalaureate-core-course-guide">http://osucascades.edu/osu-cascades-baccalaureate-core-course-guide</a>			
Skills		Fulfilled	Grade
Lifetime Fitness (2)	HHS 231		
Lifetime Fitness II (1)	Physical Activity Course (PAC)		
Mathematics (4)	Fulfilled By Major	X	
Writing I (3)	WR 121		
Writing II (3)	WR 327 recommended also fulfills Advanced Communication		
Speech (3)	Visit OSU-Cascades Bacc Core link above		
Perspectives		Fulfilled	Grade
Cultural Diversity (3-4)	Visit OSU-Cascades Bacc Core link above		
Literature & Arts	Visit OSU-Cascades Bacc Core link above		
Soc. Processes & Inst, (3)	Fulfilled by Econ 201	X	
Western Culture	Visit OSU-Cascades Bacc Core link above		
Physical Science	Fulfilled by Major	X	
Biological Science	Fulfilled by Major	X	
Additional Phys or Bio Science	Fulfilled by Major	X	
Difference, Power, & Discrim.	Fulfilled by GEO 309 (if selected for Ethics and Philosophy)	X	
Synthesis			
Contemporary Global Issues	FES 365 or SUS 350 in major (if selected)		
Science, Tech & Society	Fulfilled by Major	X	
Writing Intensive Course			
WIC	ENSC 479 recommended can be used in Specialization Option		

NATURAL RESOURCES MAJOR REQUIREMENTS 2020/2021 Curriculum (NR3)			
IMPORTANT: COURSES CAN'T DOUBLE COUNT IN THIS SECTION			
Interdisciplinary Foundations (10 credits) Required		Fulfilled	Grade
FES 485(3) Consensus and Natural Resources			
NR 201(3) Managing NR for the Future			
NR 455(4) NR Decision Making (Capstone) (prereq senior standing, FES 485 + WIC course)			
Advanced Communication (3-4 credits) Choose One			
COMM 321(3) Into to Comm Theory or COMM 324(3) Communication in Organizations or COMM 326(3) Intercultural Communication or COMM 328(3) Non Verbal Communication or COMM 440(3) Theories of Conflict and Conflict Mgmt or NR 312(3) Critical Thinking for NR Challenges or WR 327(3) Technical Writing			
Biophysical Science (28 Credits)		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 BI221-223 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 (choose one)			
SOIL 205 & SOIL 206 lab(4) Soil Science			
Ecology (choose one)			
BI 370(3) Ecology (prereq BI 221-223 or BI 211-213) or FES 341(3) Forest Ecology			

Mathematics and Statistics (8)	Fulfilled	Grade
Mathematics (choose one)		
MTH 112(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 201(4) Principles of Statistics or ST 351(4) Intro. to Statistical Methods		
Resource Management (23-31 credits)	Fulfilled	Grade
Animal ID (choose one)		
FW 312(2) Systematics of Birds or FW 318(2) Systematics of Mammals or Z 477(4) Aquatic Entomology (prereq BI 200 series)		
Environmental Assessment and Planning (choose one)		
FES 445(4) Ecological Restoration (BI 370 + WIC or instructor approval) 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 ( BI 370+WIC or instructor approval)		
Land & Water (choose one)		
GEOG 340 (3) Intro to Water Science or RNG 355(4) Desert Watershed Mgmt or RNG 455(4) Riparian Ecohydrology & Mgmt or SOIL 366(3) Ecosystems of Wildland Soils (prereq SOIL 205/206)		
Range (choose one)		
FES 440(3) Wildland Fire Ecology or FES 445(4) Ecological Restoration ( BI 370 + WIC or instructor approval) or RNG 341(3) Rangeland Ecology Mgmt		
Vegetation ID (choose one)		
RNG 353(4) Wildland Plant Identification		
Wildlife Management (choose one)		
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 (15-20 Credits)	Fulfilled	Grade
Ethics and Philosophy		
GEO 309(3) Environmental Justice or ANTH 352(3) Anthropology, Health and Environment		
Natural Resource Policy		
PS 475(4) Environmental Politics & Policy or GEOG 340(3) Intro to Water Science		
Political Issues		
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 (3-4 credits)	Fulfilled	Grade
GEOG 360 (4) GISCIENCE I: GIS & Theory		

## Additional Requirement- AREA OF SPECIALIZATION

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 40 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).

**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.

Here are some examples of recent areas of specializations that students have designed:

- Water Resource Management
- Agroforestry
- Sustainable Wilderness Recreation Management
- Environmental Disaster Management
- Food in Culture and Social Justice
- Holistic Land Management
- Marine Ecosystems and Human Impacts
- International Resource Management
- Rangeland Ecology and Management
- Communication and Outreach for Natural Resource Management

ISO Requirements:

- Minimum of 40 credits of coursework with at least 20 upper division (300-400 level) credits included
- Approx. 10-14 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 chose
- 1-2 page essay attached to petition form addressing the GOAL of your program of study and Employment Opportunities

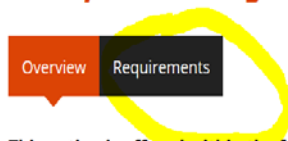
## Ecampus options:

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

How to look up ecampus option requirements.

- Go to the Programs page in the Catalog, <https://catalog.oregonstate.edu/programs/>
- Use the filter tabs on the right side to narrow your search.
  - Under Category select Option
  - Under Level select Undergraduate
  - Under Campus select Ecampus
  - Under College select College of Forestry
  - After you filter your search click on the option you are interested in from the above list and review the requirements.

### Policy and Management Opt



This option is offered within the following major

› [Natural Resources - College of Forestry](#)

<b>CATEGORY</b>
<input type="checkbox"/> Major
<input type="checkbox"/> Minor
<input checked="" type="checkbox"/> Option
<input type="checkbox"/> Certificate
<b>LEVEL</b>
<input checked="" type="checkbox"/> Undergraduate
<input type="checkbox"/> Graduate
<b>CAMPUS</b>
<input type="checkbox"/> Corvallis
<input type="checkbox"/> Cascades
<input checked="" type="checkbox"/> Ecampus
<b>COLLEGES</b>
<input type="checkbox"/> College of Agricultural Scie
<input type="checkbox"/> College of Business
<input type="checkbox"/> College of Earth, Ocean, an
<input type="checkbox"/> Atmospheric Sciences
<input type="checkbox"/> College of Education
<input type="checkbox"/> College of Engineering
<input checked="" type="checkbox"/> College of Forestry
<input type="checkbox"/> College of Liberal Arts
<input type="checkbox"/> College of Pharmacy
<input type="checkbox"/> College of Public Health an
<input type="checkbox"/> Human Sciences
<input type="checkbox"/> College of Science
<input type="checkbox"/> College of Veterinary Medi
<input type="checkbox"/> Defense Education
<input type="checkbox"/> Graduate School
<input type="checkbox"/> International Programs
<input type="checkbox"/> University Honors College