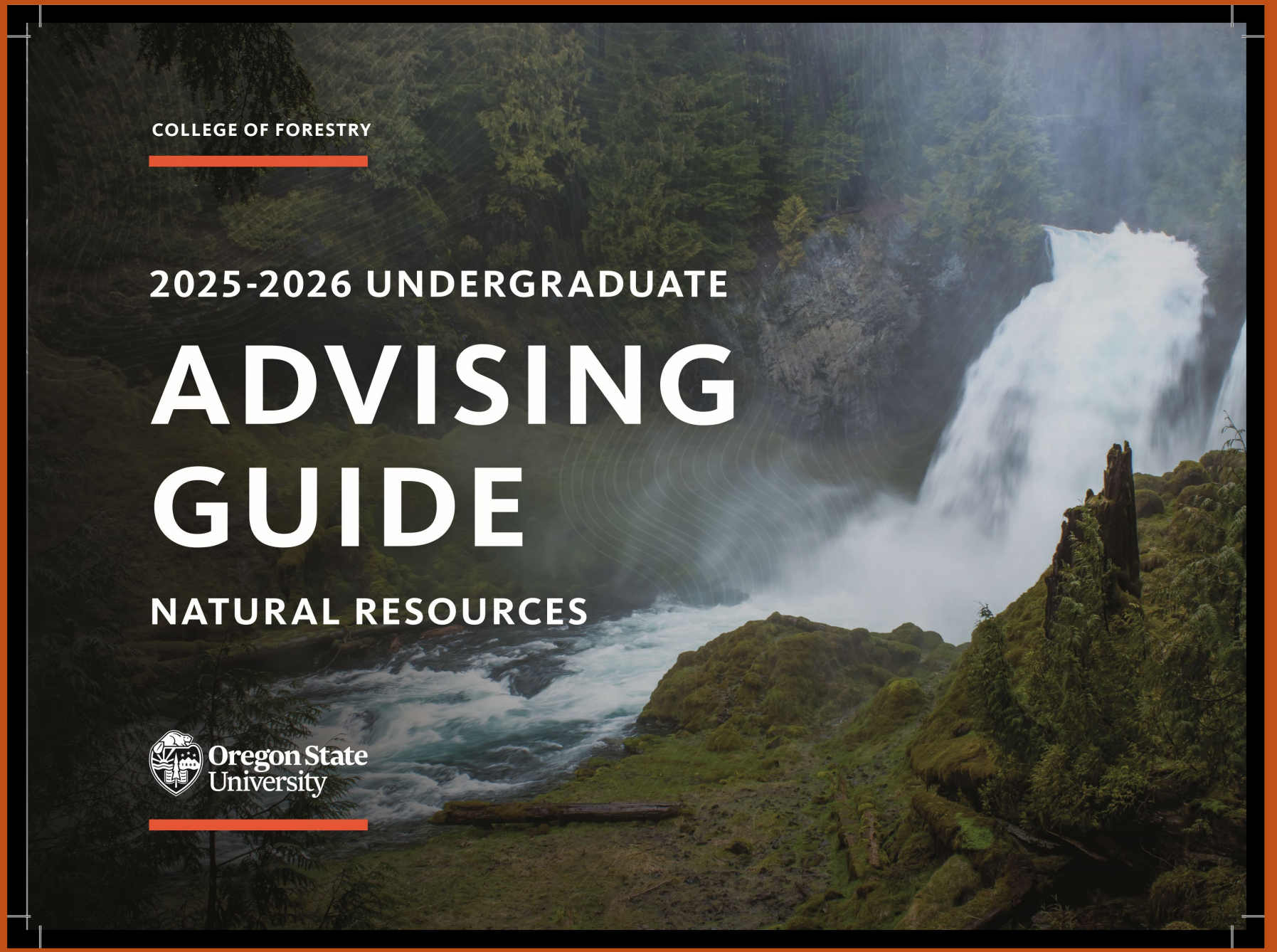

COLLEGE OF FORESTRY
2025-2026 UNDERGRADUATE
ADVISING GUIDE
NATURAL RESOURCES
Oregon State University

Department of Forest Ecosystems and Society
College of Forestry
Peavy Forest Science Center
3100 SW Jefferson Way
Corvallis, OR 97331

DISCLAIMER: Content in this guide is for advising purposes and is a useful planning tool. However, departments may change their course offerings and schedules without notice. For that reason, students should check the online Schedule of Classes frequently for the most current course information.

https://classes.oregonstate.edu/

Please help keep this guide up to date by reporting any broken links or information that has changed to:
terina.mclachlain@oregonstate.edu

Revised 10.25 for Winter 2026

Note: This Student Advising Guide reflects the NR 4.0 requirements for students who were admitted in Summer 25 onward.
Students admitted before Summer 2025 should refer to the NR 3 Student Advising Guide

Contents *(Click any heading below to quickly move to that section)*

Welcome to the Natural Resources Program at OSU!

Natural Resources 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 several pre-approved specialization options or create an individualized (student designed) specialization option.

The Natural Resources major is also available at the OSU-Cascades Campus in Bend and through the OSU ECampus program. The Natural Resources major is an interdisciplinary program administered by the College of Forestry.

Natural Resources Undergraduate Program Learning Outcomes

Students who graduate with a BS degree in Natural Resources from OSU 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. They should be able to communicate effectively, work collaboratively, assess their professional strengths and weaknesses, and be committed to continuous learning and professional development.

Specifically, they should be able to:

- Describe ecological processes, including human impacts that influence ecosystem change, natural succession, and the future sustainability of natural resources.
- Characterize natural resources and be able to quantify at least one of these resources.
- Envision desired future conditions in an area to achieve a set of natural resource-related objectives, prescribe management actions needed to achieve those objectives, and evaluate success of these actions.
- Describe how the use, management, and allocation of natural resources are affected by laws, policies, economic factors (both market and non-market), and characteristics (including demographic, cultural, ethnic, and “values” differences) of private and public resource owners and users.
- Communicate effectively, orally and in writing, with audiences of diverse backgrounds.
- Work effectively with, and within, interdisciplinary and diverse groups to resolve management problems and achieve management objectives.

How to Use This Advising Guide

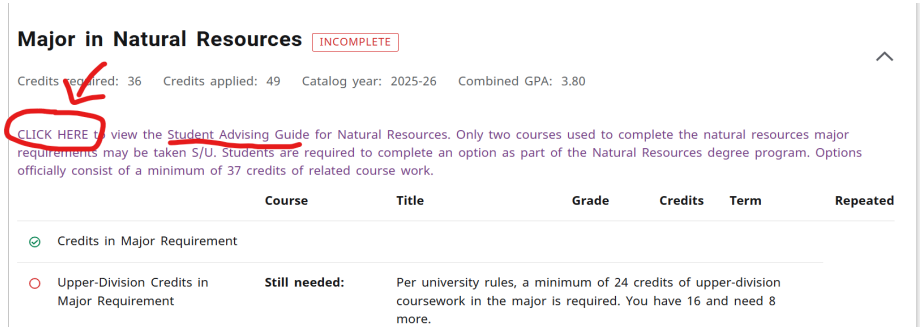
The Student Advising Guide is a road map to the completion of your degree. It lists all the requirements that you need to earn the degree and information to help you make choices along the way. Download a new copy each term to your desktop and read it carefully. Chances are you can find the answers to most of your questions in the Advising Guide! As a digital document it is searchable and has many helpful links to get you to other resources. Clicking on the BLUE course numbers will take you to the OSU Schedule of Classes where you will find the CRN number, course capacity, instructor's name, and other important information about each course. The guide is updated frequently and you can find the latest version on the Natural Resources Program Website, College of Forestry website, and through a link in your MyDegrees checklist (see image below).

***= Baccalaureate Core class**

+=Core Education class which will be in effect for those admitted in Summer 25 and beyond

^ = Writing Intensive Course

CORV = Corvallis Campus
ECMP = Ecampus
CASC = Cascades Campus



Technology and Tools

The **Natural Resources Program Website** is full of information including FAQs, petition forms, checklists, and the most recent version of the Student Advising Guide. Please take the time to read through the information and bookmark this website for future reference. Most of your questions can be answered through this website or the Student Advising Guide.

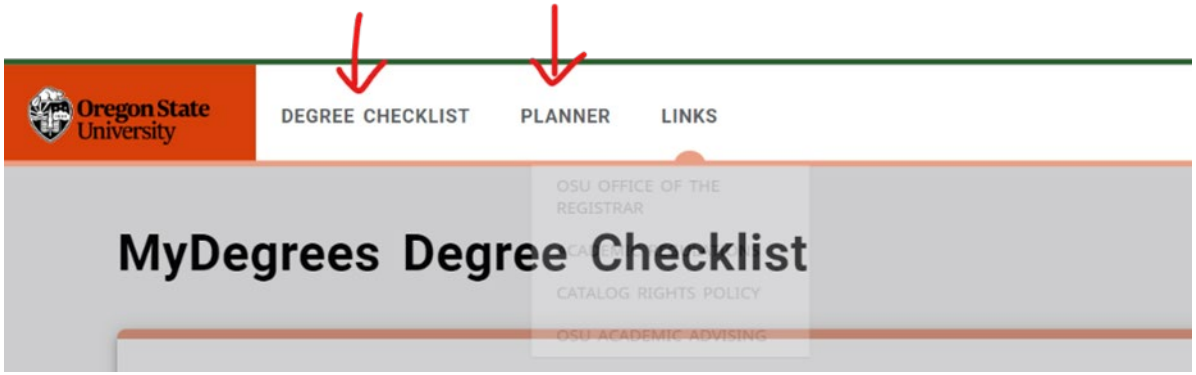
It will be very important for you to bookmark these webpages as well…
Academic Calendar – *Important deadlines that you should be aware of each term!*
Schedule of Classes – *Searchable Course schedules and descriptions and a quick way to register by adding courses to a "cart".*
Video Tutorials – *The Registrar's office has created several tutorials on using the registration system, withdrawing from classes, using MyDegrees and other helpful topics.*
Beaver Hub portal – *A one-stop login portal that connects you to all things OSU*
How to Register for Classes – *Step by Step instructions for how to register for classes using Register/Add/Drop in the myoregonstate.edu porta*

MyDegrees Checklist and Planner

Oregon State University uses an online degree audit system to help you track your progress toward your degree. The **MyDegrees** checklist will automatically apply approved OSU classes to requirements for the major. Some courses transferred from other institutions will need to be manually applied by your advisor. It is always a good idea to check to see how classes were applied in your MyDegrees checklist immediately after you register for classes each term. If you notice something is amiss, be sure to let your advisor know. You will find tutorials on how to use the MyDegrees checklist on the registrar's website.

The **Planner** tool is a feature that you and your advisor will use to plan your courses. You will use the MyDegrees Planner to input your courses for future terms. This helps us predict the need for courses in future terms and helps your advisor check to see if you are on the right track. We use this planner to build your customized academic program and facilitate a smooth path to graduation. You should be prepared to enter a plan for each term that you will share with your advisor prior to getting your REGISTRATION HOLD lifted. You will work with your advisor to create a comprehensive plan for several terms in advance. This helps us catch any roadblocks to degree progression such as scheduling, prerequisites, and restrictions on registration. You can check out the Planner website for tutorials on how to use the great features of the planner tool. Be sure to take double counting classes with the Baccalaureate Core into account when making your course choices and using the Planner! See following sections in this Advising Guide for a table of classes that double count with the NR major or specialization.

The year in which you are admitted to the Natural Resources major will determine your "catalog year" and the requirements in effect in that year are applicable to your academic program and reflected in your MyDegrees checklist. Courses added to the curriculum in future years will not appear in your MyDegrees checklist. However, all course choices available to you are listed in the advising guide so check here often to see any new additions to the course lists. The Natural Resources curriculum is updated every summer with new courses and will be noted as "new" in the advising guide



Academic Advising

Advising Rights and Responsibilities

The College of Forestry is committed to helping students succeed. Each student is assigned a professional academic advisor to assist with appropriate course selection, explain program options in line with student interests, and provide information about mentoring and other professional opportunities. In addition, academic advisors are a valuable resource for information and assistance regarding university rules and regulations, petitions, job placement, national and international exchange programs, and referrals to university programs and resources. Your relationship with your professional academic advisor will be one of the most important in your college career.

The advising effort is one of mutual respect and collaboration between you and your advisor. If the process is to be effective both you and your advisor must meet certain obligations. With that in mind, here are some key responsibilities for your relationship.

As an advisee, you should:

- Understand and accept that you are ultimately responsible for your education and your own decisions.
- Be proactive about planning your academic program and connecting with your advisor well before the term registration begins to get your REGISTRATION HOLD removed.
- Be prepared when you come to advising sessions. Be active in your advising session and ask questions when you have them.
- Provide accurate and truthful information when being advised.
- Initiate a purposeful relationship with your advisor and make appointments when necessary or when in need of assistance.
  - Appointments are available by phone, Zoom and in the advising office.
- Keep your contact information in your Student Online Services profile up to date and regularly check your OSU email.
- Use only your OSU email (oregonstate.edu) account to correspond with your advisor and include your student ID# in every correspondence.
- Cancel appointments through the online appointment system when you are unable to make them.
- Learn and understand OSU's policies, procedures, and requirements as they relate to your academic success and/or degree completion.
- Follow through plans-of-action identified during advising sessions.

Advisors should:

- Develop a purposeful relationship with and be an advocate for their advisees.
- Inform students of the nature of the advisor/advisee relationship.
- Assist students in defining and developing education, career, and life plans.
- Provide timely and accurate educational information.
- Promote learning opportunities that will help students define or meet personal goals.
- Assist students in preparing a program that is consistent with their abilities and interests.
- Monitor progress toward educational/career goals.
- Interpret and provide rationale for institutional policies, procedures, and requirements.
- Inform students of campus resources that can enhance or supplement their academic or personal experience.

Make an Advising Appointment

One of the key actions for academic success is having regular appointments with your academic advisor. Many roadblocks to success and opportunities for enrichment are discovered through a meeting with your advisor. You can schedule an appointment through the Beaver Hub. You will receive email reminders about your appointment, and you can opt in for text reminders. If you can't attend your scheduled appointment, please log back into the system to cancel the appointment so another student can use that time or let your advisor know that you need to cancel. If you have any problems with scheduling an appointment, please contact your advisor through email.

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Gina Cavanaugh
PFSC 116-H
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gina.cavanaugh@oregonstate.edu

Terina McLachlain, NR Program Coordinator
Working remotely. Email me to set up
an office appointment.
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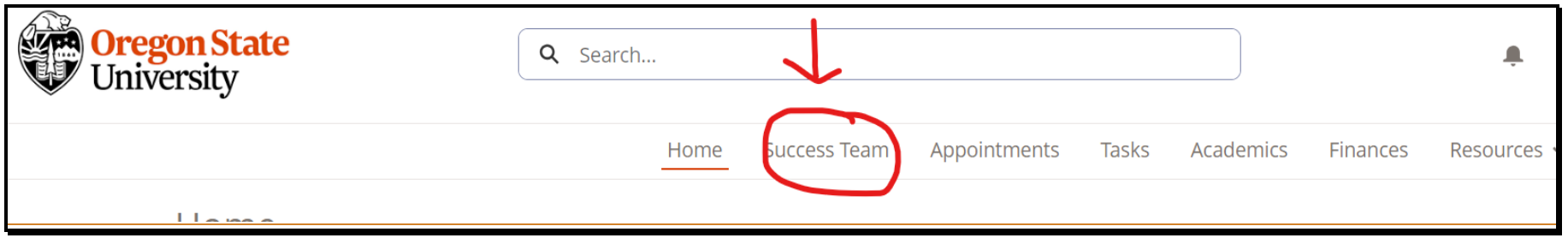
541-321-8651 (home office)
terina.mclachlain@oregonstate.edu

CASCADES CAMPUS
Natasha Anderson-Butler
Tykeson Hall 309
541-322-2090
natasha.andersonbutler@osucascades.edu

You will find the link to your assigned advisor on the "Success Team" tab on the Beaver Hub home page.



Registering for classes

Each term (except summer) a REGISTRATION HOLD will be placed on your account and will need to be removed before you can register for classes. You should plan ahead and not wait until the last minute to get your HOLD removed. Advisor schedules can fill up quickly and a very high volume of email during registration time can delay getting your REGISTRATION HOLD removed and cause you to register late. The procedure for removing the REGISTRATION HOLD is outlined below:

OPTION 1 - FAST PASS: You may request an ADVISING REGISTRATION HOLD removal from your advisor via email *without* an appointment if you meet the following criteria…

a. You are NOT in your first year at OSU.
b. You are in good academic standing.
c. You have an up-to-date plan in your MyDegrees Planner.

NOTE: Your advisor may ask you to schedule an advising appointment if you do not meet the FAST PASS criteria, if there are other outstanding tasks that you have not completed, or if they have questions for you that require a conversation.

You are always welcome to make an appointment with your advisor at any time. FAST PASS is not a requirement. It is just an option if you feel confident in your course choices and have a solid plan in place.

If you are requesting a FAST PASS REGISTRATION HOLD lifted:

#1. Use the advising guide and your MyDegrees checklist to choose classes to fulfill your remaining requirements. It is always advisable to have a couple of "back up" classes in case your first choices fill up before you can register. Remember you can waitlist a class if it fills before you have a chance to register. Be sure to check prerequisites and get overrides well in advance of registration.

#2. Add your chosen classes to the MyDegrees Planner.

#3. Email your advisor to let them know the planner is ready for review. It is helpful to include the classes and what requirement you want them to fulfill in the email as well. Be sure to always include your student ID# and use your OSU email account when corresponding.

#4. After reviewing your plan your advisor will lift the REGISTRATION HOLD.

OPTION 2 – REGISTRATION HOLD LIFTED THROUGH AN APPOINTMENT: You are ***required*** to make an appointment with your advisor to get your REGISTRATION HOLD removed if you meet one of the following criteria…

a. You are in your FIRST year at OSU.
b. You are NOT in good academic standing.
c. You do not have an up-to-date plan in your MyDegrees Planner.

If you are requesting an APPOINTMENT to get your REGISTRATION HOLD removed, please come prepared in order to use your time most efficiently.

#1. Use the advising guide and your MyDegrees checklist to choose classes to fulfill your remaining requirements. It is always advisable to have a couple of "back up" classes in case your first choices fill up before you can register. Remember you can always waitlist a class if it fills before you have a chance to register. Be sure to check prerequisites and get overrides well in advance of registration.

#2. Add your chosen classes to the Planner.

#3. Make a list of any questions you may have for your advisor.

Your assigned registration day and time: You can find your priority registration assigned day and time in Beaver Hub by searching under "Academics" for "Check your registration Status". The instructions and more information are here. Note that registration times are always shown as Pacific Standard Time Zone. Assigned registration day and times for the next term are generally available by week 5 of the current term. Students can register for up to 19 credits. You must have at least 6 credits for part-time financial aid and a minimum of 12 credits for full-time financial aid. Waitlisting courses is available throughout registration if a class fills up before you can register. Students are assigned a registration day and time in fall, winter and spring terms based on their class level and total earned/in-progress credits including transfer credits. Registration restrictions such as campus, class standing or major will be removed on Monday of Week 10 of the current term. (Some major restrictions are never removed so check the Schedule of Classes for information on restrictions each term).

Class Standing	*Total Credits Earned (including transferred credits)
Freshman	1-44
Sophomore	45-89
Junior	90-134
Senior	135 and more

It is important to note that the completion of the Natural Resources degree is not related to how many credits you have earned but whether you have met the content requirements of the degree.

We recommend that you use the Scheduler tool in the Schedule of Classes to set up a registration cart for the term. This tool has advanced search features and all the information about classes in one handy spot. You create a "shopping cart" of classes that you want to register for and then submit the cart to the registration system. You can enter time restrictions and filter out classes that won't work with your schedule. It is a simple and easy to use tool!

Note: If you need to drop/withdraw from a class you will need to use the Register/Add/Drop method. See the information below about how to withdraw/drop a class.

SUCCESS TIP: This video will explain how to use the registration system.

Taking a term off

You may be "not registered" for 4 consecutive terms (not including summer term) and still be an active student. If you are a Degree Partnership student you are allowed 8 terms (not including summer) if you are taking your classes at the community college rather than at OSU. If you plan to be gone longer than 5 terms you should take a Planned Educational Leave. If you become inactive you will need to apply for readmission and may be readmitted into a different version than your current academic program.

Transfer Students

Students interested in how a course has been articulated by OSU can find a single course search tool and other resources at Transfer Credit Central. The transfer course search tool uses a data base that is historical, so if no one transferred a course in the past, it will not be on the list and will need evaluation. Just because a class is not listed does not necessarily mean it will not be applicable to your degree. After Admissions has evaluated transfer classes, they will be automatically applied to your MyDegrees checklist if they have been previously evaluated by OSU. Classes that are electives or that have not been previously evaluated with show as LDT (lower division transfer) or UDT (upper division transfer). Classes designated as NAT are not university-level transfer courses and will not count towards degree requirements. Your advisor will help determine how your transfer courses will apply to the program, during initial advising. In some cases, you will want to petition for a course to be applied by submitting a course substitution petition form. Talk to your advisor before submitting the petition to determine if the course would be allowed. Students attending Oregon Community Colleges can find course equivalency tables and transfer guides for the NR major to assist them in choosing courses. You can petition transfer courses to meet Core Ed requirements by submitting the online petition form and syllabus for review here.

Post Baccalaureate Students

Students who have already earned a bachelor's degree in a different major will not need to complete the Core Education classes. You will need to complete one of the WIC (writing intensive course) courses that can double count in the NR major. The Admissions Department will not automatically articulate classes for Post Bacc students and your advisor will need to request articulations for specific classes from a previous degree that can be applied to the Natural Resources requirements.

Degree Partnership with Oregon Community Colleges

The Degree Partnership Program (DPP) is a collaboration between OSU and our community college partners in Oregon and Hawaii that seeks to provide a flexible and affordable pathway for incoming and current students towards receiving a bachelor's degree. After admission into the DPP Program students can take classes at a community college while being concurrently enrolled at OSU. Credits are combined for financial aid purposes. We encourage students to participate in the DPP as it is an efficient way to complete course requirements and save money.

Overrides and Other Course Restrictions

Courses can be restricted to only allow the appropriate student population to enroll in the course. Restrictions can include prerequisite requirements, major/minor/option restrictions, campus and class standing restrictions. Online courses are restricted to "Ecampus students only" in the first 10 weeks of registration. These restrictions are usually taken off in week 10 but in some cases are permanent which means Corvallis campus students can not register for that section. Before beginning registration, verify that you clear all restrictions on courses you intend to register for. Course restrictions are listed in the Schedule of Classes. Don't be caught off guard at the time of registration. In many cases, a prerequisite override may be warranted.

NOTE: Beginning with Fall 2025 registration, online classes will be restricted to Ecampus students only until week 10 of the current term. If you are a Corvallis campus student, please talk to your advisor about the impact on your academic plans. This will apply to fall, winter and spring terms but not summer.

Seeking access to an *undergrad* course in the College of Forestry?

Use this form to request an override for a College of Forestry class (FE, FES, FOR, NR, TRAL, WSE). Please complete one form per course. Requests are reviewed within 1-3 business days and results will be emailed to you. Submitting a request does not guarantee an override will be granted.

Common overrides needed from <u>other</u> Colleges:

Biology/Zoology: Students who completed their 200-level equivalent biology series (transferred as BI LD2) or a portion of the series *<u>at another institution</u>*, will need overrides to take classes that have the BI 2xx series as a prerequisite even if the courses have been petitioned and approved. These overrides can be granted only if the classes have been completed with a minimum grade requirement of C-. For prerequisite overrides based on transfer coursework or test scores, use the Integrative Biology Override Request Form. For other biology or zoology course issues or overrides, contact the Integrative Biology office email ib@oregonstate.edu or call 541-737-2993.

Math: Read this first, before contacting the Math Department for overrides: https://math.oregonstate.edu/undergrad/common_registration_issues Some math sections are restricted to EOP students (09X sections) or INTO students (6XX sections) – only these students can take these. For prerequisite overrides based on transfer coursework or test scores, use the Math Override Request Form. For other math issues and overrides, email mathplacement@math.oregonstate.edu.

Fish and Wildlife: A list of restrictions and how to pursue overrides can be found on the FW Registration and Overrides webpage. Most FW classes will require that you have completed the entire year of BI 2XX or BI 370. If you transferred in a BI LD2 class or series you will need to get a prerequisite override for the FW classes that require the OSU biology courses. NOTE: Students in their last term before graduation will need to go through their assigned academic advisor to request an override.

Botany: For override requests please complete the Botany Override Request Form. All other inquires can be sent to botany.advising@oregonstate.edu.

REQUEST OVERRIDES WELL IN ADVANCE OF REGISTRATION OPENING SO YOU ARE NOT DELAYED IN GETTING THE CLASSES THAT YOU NEED!

Add/Drop/Withdraw from Courses and Withdraw from Term

Academic Regulations (ARS) 11, 12, and 13 cover University rules pertaining to adding, dropping, and withdrawing from individual courses, as well as withdrawing from the term. Understanding these rules and knowing the deadlines for applying them can help you reduce college costs and protect your GPA from lowered grades. You can drop a class during the first full week of the term with no repercussion. You can withdraw from a class in week 2 through week 7. Unlike dropping a course, withdrawing from a course has costs. In most cases, you will be charged for a course if you withdraw from it, and a "W" grade will appear on your transcript for the course or courses you withdraw from. You are only allowed 18 withdraws ("W") in your entire academic program. Every student is responsible for knowing academic regulations and for observing the procedures that govern their relations with Oregon State University.
https://registrar.oregonstate.edu/dropwithdraw-course
For students who rely on federal financial aid, scholarships, or other forms of financial aid, always check with the Financial Aid Office before withdrawing from a class.

Double Counting Courses

Courses may be double counted between the Core Education requirements and the Natural Resource major requirements or Specialization Option. Courses may NOT be double counted within the NR major requirements and the Specialization Option. You may see that a course is listed as a choice in more than one requirement but each requirement within the major requirements and the specialization requires a unique class. You will need to let your advisor know where you want courses to be applied. Students can find a chart that shows Core Ed classes used in the NR major/specializations and the requirements where they double count in this advising guide.

Courses are also allowed to be double counted in a minor, certificate or another major if allowed by the department the offers the credential. Some additional credentials that the Natural Resources major is often paired up with are the minors in Sustainability, Soil, Botany, the GIS undergraduate certificate or the Sustainability or Education majors.

Satisfactory/Unsatisfactory Grading

The Natural Resources program allows TWO Satisfactory/Unsatisfactory (S/U) graded courses to be applied to a major requirement or area of specialization. A maximum of 36 credits can be taken for an S/U grade in the Baccalaureate Core. You should familiarize yourself with this and other Academic Regulations. Advisors must approve a change in grading status to S/U so students should communicate with their advisor if they want to use this option. You will need to submit an online request to change the grading basis of a course. The deadline is always noon on Friday of the seventh week of the term.

Account Holds and Registration Errors

It can be very frustrating if you are trying to register for classes and discover that you have a HOLD on your account, or a registration error occurs. This roadblock is avoided by checking your MyDegrees checklist (the top block) for any registration holds prior to registration. Very often there are easy fixes to these issues so managing these issues ahead of time will prevent any last-minute panic. You can find out more about REGISTRATION ERRORS and HOLDS at the website below and how to get them removed.

Registration Errors Holds on Account

Core Education (General Education Requirements)

Oregon State University's Core Education is a universal educational experience for the 21st-century learner that promotes economic, social, cultural, and environmental progress for the people of Oregon, the nation, and the world. The curriculum strives to develop students' intellectual capacities and resiliency to be critical agents who transform knowledge into action. Through deep and integrative experiences, OSU's Core Education meets students where they are in their educational journey and equips them for meaningful, lifelong learning. Our Core Education is designed to foster student potential to innovate and change the world by solving complex problems, adapting to change, and becoming community members in a global society.

Core Education Transfer Credit: Transfer Students from Oregon Community Colleges can find information on how their transferred courses will apply to Core Ed requirements and what they have left to complete at OSU.

Post Baccalaureate Students: Those students earning their second Bachelor's degree will not need to fulfill the Core Education requirements. They will filfill the Writing Intensive Course and the Difference, Power and Discrimination Advanced courses through the major requirements.

Goals

Foundational Modes of Inquiry and Innovation — students will use multiple modes of inquiry, within and across a variety of disciplines, to develop fundamental skills and breadth of knowledge that promote lifelong learning and creative problem-solving.

Social and Environmental Justice — students will examine evidence from a variety of perspectives to grow their cultural and environmental awareness and increase their capacity to enact social and environmental justice.

Navigation of a Complex Global World — students will apply skills necessary for navigating a world with multiple perspectives and global interconnectedness.

From Here to Career — students will gain professional skills and competencies designed for adaptability, longevity, and integrity in a global workforce

It is highly recommended that you complete your Natural Resources requirements for math*, statistics, chemistry, and biology within your first year.

**Some students with little math background or who took math long ago may need to start with developmental courses such as MTH 65 and/or MTH95. You might also try some free online tutorials to get your math skills up to speed. There are many sites available but one of the best is the Kahn Academy (www.kahnacademy.org.)*

NOTE: The tutoring modules in the ALEKS Math Assessment are an excellent way to refresh math skills prior to courses such as chemistry. If you have not had a math course recently, we strongly recommend completing the ALEKS assessment and working in the tutoring modules

.Do I need to take the ALEKS Math Placement Assessment?

- All first-year students must take the ALEKS Math Placement Assessment.
- All transfer and post-baccalaureate students newly admitted to OSU must take the ALEKS Math Placement Assessment, unless you have earned a C- or better in a college-level course **equivalent** to OSU's MTH 111z [was MTH 111] from another college or university; or via a CLEP exam, AP exam, or IB exam.
- If it has been more than a year since your last math class, taking the ALEKS Math Placement Assessment is strongly recommended. Using Adaptive Learning Technology, ALEKS will send you to learning modules that will provide a good refresher for math skills.

ALEKS Math Placement Test: http://www.math.oregonstate.edu/mlc-placement-home

SCORE	COURSE PLACEMENT
75% - 100%	MTH 251z [was MTH 251]: *+Differential Calculus
60% - 74%	MTH 112z [was MTH 112]: *+Precalculus II: Trigonometry MTH 241: *+Calculus for the Management and Social Science MTH 245: *+Mathematics for Management, Life and Social Science
46% - 59%	MTH 105z (was MTH 105] : *+Math in Society MTH 111z [was MTH 111]: *+Precalculus I: Functions
30% - 45%	MTH 103: Algebraic Reasoning
15% - 29%	MTH065: Elementary Algebra
0% - 14%	If your score was below 15%, you did not place into any OSU Mathematics Course. You can use the ALEKS Learning Modules to improve your score or consider enrolling in a community college to take the appropriate prerequisite courses.

If a course has been approved for the Core Education requirements a plus sign (+) will appear by the course title or number A complete list of courses (both Ecampus and On Campus) fulfilling the Core Education requirements and the learning outcomes for Core Education is found at: https://coreeducation.oregonstate.edu/students

CORE EDUCATION REQUIREMENTS (42-48 credits) https://coreeducation.oregonstate.edu/curriculum		
Foundational Core Requirements (31-35 credits)		
Writing Foundations (4 cr) *(C- or above)*	**WR 121z**	WR121z or equivalent is required with a grade of C- or above.
Arts and Humanities: General (3-4 cr)	**Student Choice**	See Table of Double Counting courses below or see CORE ED course listings at link above. *NOTE: Arts & Humanities courses must come from two different departments*
Arts & Humanities: Global (3-4 cr)	**Student Choice**	See Table of Double Counting courses below or see CORE ED course listings at link above. *NOTE: Arts & Humanities courses must come from two different departments*
Quantitative Literacy & Analysis (4 cr)	**Fulfilled in Major**	MTH112z, MTH241, MTH245, MTH251 (Mathematics) or ST 243z (Statistics)
Communication, Media and Society (3-4 cr)	**Student Choice**	See Table of Double Counting courses below or see CORE ED course listings at link above.
Social Science (3 cr)	**Fulfilled in major**	**AEC 250 or ECON 201z (Economics**). See Table of Double Counting courses below or see CORE ED course listings at link above.
Scientific Inquiry & Analysis I (4 - 5 cr)	**Fulfilled in major**	Used in NR major requirements: ATS 201 or BI 101/Z102/BI103 or BI 204/205/206 or BI221/222/223 or BOT 101 or CH 121 or CH221z&CH227z or CSS 205 or ENSC 210 or FES 240 or GEO 101 or GEO 201 or GEO 202 or GEOG 102 or GEOG 201 or OC 201 or OC 202 or SOIL 205&206 or SUS 103 *NOTE: Scientific Inquiry & Analysis I and II courses must come from two different departments.*
Scientific Inquiry & Analysis II (4 – 5 cr)	**Fulfilled in major**	
Difference, Power and Oppression Foundations (3-4 cr)	**Student Choice**	See pages 14-19 in this advising guide for chart of double counting courses or see CORE ED course listings at link above.
Signature Core Requirements (11-13 credits)		
Transitions (2 cr)	**CORE 100/ CORE 300**	CORE 100 (First year) or CORE 300 (transfer student)
Beyond OSU I: Prepare (0 cr)	**Fulfilled in major**	**NR 201** is required in major.
Beyond OSU II: Engage (0 cr)	**Fulfilled in major**	**NR 455** is required in major.
Difference, Power and Oppression Advanced (0 cr)	**Fulfilled in major**	**Must choose from one of these:** AG 311 or ANTH 411 or ENSC/GEOG 333 or FW 340 or SUS 331.
Seeking Solutions (3-4)	**Student choice**	Cannot be fulfilled by a course applied in the major.
Writing Elevation (3 - 4 cr)	**Student Choice**	See Table of Double Counting courses below or see CORE ED course listings at link above
Writing Intensive Course (WIC) (0 cr)	**Fulfilled in major**	**WIC classes used in NR major requirements or Specialization:** CROP/SOIL/SUS 325^ or ENSC 321^ or FE/FOR 463* or FES 486^ or FW 497^ or GEOG 323^ or PS 300^ or RNG 491^ or SOIL 395^ or WR 462^. See Table of Double Counting Courses below.
World Language Admissions requirement	Students who graduated from high school or received a GED *after* 1997 are required to have two years of the same high school foreign language with a grade or C- or better OR two terms of a college level foreign language with a C- or better. Other ways to meet this requirement can be found at this OSU Admission website.	

Table of Double Countings Courses used in Natural Resources major or specialization.

Course #	Course Name	NR requirement met *(Italics = Specialty Option)*	Core Ed requirement that is also met by this course
*=Baccalaureate Core / ^ =WIC (Writing Intensive Course) / += Core Ed (for those student admitted in Summer 2025 and beyond)			
AEC 122+*	Introduction to Climate Change Economics and Policy	*Human Dimensions* *Policy and Management*	Social Science
AEC 250+*	Introduction to Environmental Economics and Policy	Economics	Social Science
AG 201+*	Indigenous Ecosystem Science of PNW Regions. (Was AG 301)	Social and Ethical Issues *Policy and Management*	Difference, Power and Oppression Foundations
AG 311+*	Indigenous Agriculture and Subsistence	Difference, Power and Oppression Advanced	Difference, Power and Oppression Advanced
ANTH 101+*	Introduction to Anthropology	*Human Dimensions*	Social Science
ANTH 210+*	Introduction to Cultural Anthropology	*Human Dimensions*	Arts & Humanities Global
ANTH 352+*	Anthropology, Health and the Environment	Social and Ethical Issues	Seeking Solutions (can't double count with major requirements if used for Seeking Solutions)
ANTH 411+	Anthropology of Difference, Power and Oppression	Difference Power and Oppression Advanced	Difference Power and Oppression Advanced
ATS 201+*	Climate Science	Climate Science	Scientific Inquiry and Analysis
ATS 341+*	Snow, Smoke and Storms: Climate Change in the PNW	Climate Science, *Environmental Disaster Management*	Seeking Solutions (can't double count with major requirements if used for Seeking Solutions)
BI 101+*	Environmental Biology: Ecology, Conservation, Global Change	Biology I	Scientific Inquiry and Analysis
BI 103+*	Human Biology: Anatomy, Physiology and Disease	Biology III	Scientific Inquiry and Analysis
BI 204+*	Introductory Biology I	Biology I	Scientific Inquiry and Analysis
BI 205+*	Introductory Biology II	Biology II	Scientific Inquiry and Analysis
BI 206+*	Introductory Biology III	Biology III	Scientific Inquiry and Analysis
BI 221z+*	Principles of Biology: Cells	Biology I	Scientific Inquiry and Analysis
BI 222z+*	Principles of Biology: Organisms	Biology II	Scientific Inquiry and Analysis
BI 223z+*	Principles of Biology: Populations	Biology III	Scientific Inquiry and Analysis
BOT 101+*	Botany: A Human Concern	Plant Science	Scientific Inquiry and Analysis
BOT 220+*	Introduction to Plant Biology	Plant Science	Scientific Inquiry and Analysis

		Ecological Restoration *Fish and Wildlife Conservation*	
CH 121+	General Chemistry	Chemistry	Scientific Inquiry and Analysis
CH 221z+* (with CH 227 lab)	General Chemistry I (was CH 231 and CH 261)	Chemistry	Scientific Inquiry and Analysis
CH 222z* (with CH 228z lab)	General Chemistry II (was CH 232 and CH 262)	*Ecological Restoration*	Scientific Inquiry and Analysis
COMM 226+	Intercultural Communication (was COMM 326)	Advanced Communication *Conservation Law Enforcement*	Difference, Power and Oppression Foundations
CROP/SOIL/SUS 325^	Ag and Environmental Predicaments: A Case Study Approach	Environmental Assessment and Planning	Writing Intensive Course (WIC)
CSS 205+*	Soil Science	Land Science	Scientific Inquiry and Analysis
ECON 201z+*	Introduction to Microeconomics (was ECON 201)	Economics	Social Science
ED 216+*	Purpose, Structure and Function of Ed in a Democracy	*Natural Resource Education*	Difference, Power and Oppression Foundations
ED 219+*	Social Justice, Civil Rights & Multiculturalism in Education	*Natural Resource Education*	Difference, Power and Oppression Foundations
ED 253+	Learning Across the Lifespan	*Natural Resource Education*	Social Science
ENSC 210+*	Environmental Earth Sciences (was GEO 221)	Land Science *Environmental Disaster Management*	Scientific Inquiry and Analysis
ENSC 321^	Environmental Case Studies (was ENSC 479)	Advanced Communication *Fish and Wildlife Conservation* *Policy and Management*	Writing Intensive Course (WIC)
ENSC/GEOG 333+*	Environmental Justice	Difference, Power and Oppression Advanced	Difference, Power and Oppression Advanced
ENT 300/ HORT330+*	Plagues, Pest and Politics	Natural Resource Policy and Politics	Seeking Solutions (can't double count with major requirements if used for Seeking Solutions)
FES 240+*	Forest Biology	Plant Science Terrestrial Ecosystems	Scientific Inquiry and Analysis

		Ecological Restoration *Forest Ecosystems*	
FES 486^	Public Lands Policy and Management	NR Policy and Politics *Fish and Wildlife Conservation* *Human Dimensions* *Policy and Management*	Writing Intensive Course (WIC)
FOR 111+	Introduction to Forestry	Terrestrial Ecosystems	Beyond OSU 1 (If transferring in an equivalent to NR 201)
FOR/FE 463^	Forest Policy and Regulation	Natural Resource Policy and Politics *Policy and Management* *Urban Forest Landscapes*	Writing Intensive Course (WIC)
FW 324+*	Food from the Sea	Social and Ethical Issues *Natural Resource Education*	Seeking Solutions (can't double count with major requirements if used for Seeking Solutions)
FW 325+*	Global Crises Resource Ecology	Social and Ethical Issues *Policy and Management*	Seeking Solutions (can't double count with major requirements if used for Seeking Solutions)
FW 340+*	Power and Justice in U.S. Natural Resource Management	Difference, Power and Oppression Advanced	Difference, Power and Oppression Advanced
FW 350+*	Endangered Species, Society and Sustainability	Natural Resource Policy and Politics *Fish and Wildlife Conservation* *Human Dimensions* *Policy and Management*	Seeking Solutions (can't double count with major requirements if used for Seeking Solutions)
~~FW 454^~~	~~Fishery Biology~~	~~Animal Science~~ ~~*Ecological Restoration*~~ ~~*Fish and Wildlife Conservation*~~	~~Writing Intensive Course (WIC)~~
FW 497^	Aquaculture	*Fish and Wildlife Conservation*	Writing Intensive Course (WIC)
GEO 101+*	Earth Science	Land Science	Scientific Inquiry and Analysis
GEO 201+*	Physical Geology	Land Science	Scientific Inquiry and Analysis
GEO 202+*	Earth Systems Science	Land Science	Scientific Inquiry and Analysis
GEO 203+*	Evolution of Planet Earth	Land Science	Scientific Inquiry and Analysis
GEO 305+*	Society and Volcanoes	*Environmental Disaster Mngmnt*	Seeking Solutions (can't double count with major requirements if used for Seeking Solutions)

GEO 306+*	Mineral, Energy, Water and the Environment	Social and Ethical Issues	Seeking Solutions (can't double count with major requirements if used for Seeking Solutions)
GEOG 100+*	Climate Justice	Social and Ethical Issues	Difference, Power and Oppression Foundations
GEOG 102+*	Dynamic Planet (was Physical Geography)	Land Science	Scientific Inquiry and Analysis
GEOG 201+*	Foundations of Geospatial Science and GIS	Spatial Analysis *Forest Ecosystems,* *Landscape Analysis* *Policy and Management*	Scientific Inquiry and Analysis
GEOG 202+	Maps, Media and Miscommunication	Advanced Communication	Communication, Media and Society
GEOG 203+*	There is no Plan(et) B: Human-Environment Geography in the Anthropocene (Was Human-Environmental Geography)	Social and Ethical Issues	Social Science
GEOG 241+*	Transforming Environmental Conflicts	Social and Ethical Issues	Difference, Power and Oppression Foundations
GEOG 242+	Urban Aqua Networks: Ancient to Modern	Social and Ethical Issues	Social Science
GEOG 250+*	Land Use Planning for Sustainable Communities	Environmental Assessment and Planning, *Urban Forest Landscapes, Ecological Restoration,*	Social Science
GEOG 300+*	Sustainability for the Common Good	Social and Ethical Issues, *Human Dimensions, Policy and Management*	Seeking Solutions (can't double count with major requirements if used for Seeking Solutions)
GEOG 323^	Climatology	Climate Science	Writing Intensive Course (WIC)
GEOG 331+*	Population, Consumption and Environment	*Environmental Disaster Management* *Human Dimensions*	Seeking Solutions (can't double count with major requirements if used for Seeking Solutions)
GEOG 350+*	Geographies of Risk, Vulnerability and Resilience	*Policy and Management* *Environmental Disaster Management*	Seeking Solutions (can't double count with major requirements if used for Seeking Solutions)
HDFS 201+*	Contemporary Families in the US	*Conservation Law Enforcement*	Difference, Power and Oppression Foundations
MAST 201+	Humans and the Ocean	Social and Ethical Issues	Beyond OSU I (Not used in NR major for Beyond OSI I)

MAST 300+	Society, Culture and the Marine Environment	Social and Ethical Issues	Beyond OSU II (Not used in NR majkor for Beyond OSU II)
MTH 112z+*	Elementary Functions	Mathematics	Quantitative Literacy and Analysis
MTH 241+*	Calculus for Management, Life and Social Sciences	Mathematics	Quantitative Literacy and Analysis
MTH 245+*	Mathematics for Management, Life and Social Sciences	Mathematics	Quantitative Literacy and Analysis
MTH 251+*	Differential Calculus	Mathematics	Quantitative Literacy and Analysis
NR 201+	Managing Natural Resources for the Future	Interdisciplinary Foundations	Beyond OSU I
NR 455+	Natural Resource Decision Making	Interdisciplinary Foundations	Beyond OSU II
OC 201+*	Oceanography	Water Science	Scientific Inquiry and Analysis
OC 202+*	Introduction to Biological Oceanography	Water Science	Scientific Inquiry and Analysis
OC 203+ (coming soon)	Oceans, Coasts and People Also scheduled as OC 333* which is not a Core ED class)	Social and Ethical Issues	Social Science
PH 201+*	General Physics	*Forest Ecosystems*	Scientific Inquiry and Analysis
PPOL 201+	Introduction to Public Policy	*Policy and Management*	Social Science
PS 201+*	Introduction to American Government	*Policy and Management*	Arts and Humanities General
PS 300^	Research Methods	*Policy and Management*	Writing Intensive Course (WIC)
PSY 201z+*	Introduction to Psychology I	*Human Dimensions*	Social Science
PSY 202z+*	Introduction to Psychology II	*Human Dimensions*	Social Science
RNG 491^	Rangeland Management and Planning	Environmental Assessment and Planning *Forest Ecosystems* *Policy and Management* *Wildland Fire Ecology*	Writing Intensive Course (WIC)
SOC 204z+*	Introduction to Sociology	*Human Dimensions*	Social Science
SOC 280+	Introduction to Environment and Society	Social and Ethical Issues *Human Dimensions*	Social Science
SOIL 205+* (w/ lab of SOIL 205 or FOR 206)	Soil Science	Land Science	Scientific Inquiry and Analysis
SOIL 395^	World Soil Resources	Terrestrial Ecosystems	Writing Intensive Course (WIC)
ST 243z+	Elementary Statistics I	Statistics	Quantitative Literacy and Analysis
SUS 103+*	Intro to Climate Change	Climate Science	Scientific Inquiry and Analysis
SUS 331+*	Sustainability, Justice, and Engagement	*Ecological Restoration* *Human Dimensions* *Policy and Management*	Difference, Power and Oppression Advanced

SUS 350+*	Sustainable Communities	Environmental Assessment and Planning	Seeking Solutions (can't double count with major requirements if used for Seeking Solutions)
TRAL 456+	Planning for Sustainable Recreation	Environmental Assessment and Planning	Beyond OSU II (Not used in NR major for Beyond OSU I)
TRAL 457+	Planning for Sustainable Tourism	Environmental Assessment and Planning	Beyond OSU II (Not used in NR major for Beyond OSU II)
WR 227+*	Technical Writing	Adv Communication	Writing Elevation
WR 323+*	Adv Writing and Augmentation	Adv Communication	Writing Elevation
WR 362+*	Science Writing	Advanced Communication, *Conservation Law Enforcement*	Writing Elevation
WR 375+	Writing for the Natural Sciences	Advanced Communication *Conservation Law Enforcement*	Writing Elevation
WR 462^	Environmental Writing	Advanced Communication	Writing Intensive Course (WIC)
WSE 385*	Evaluating Sustainability through Life Cycle Analysis	Env Assessment and Planning	Science, Technology and Society
Z 102+*	Animal Biology: Genes, Behavior and Evolution of Life	Biology II	Scientific Analysis and Inquiry

Choosing an Area of Specialization

A specialty "option" is a required part of the Natural Resources major that allows the student 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.
- At least 20 of the credits in the option must be upper division credits (those are courses numbered 300-400)
- You should declare your option by letting your advisor know your choice no later than your 4th term if you are full time and 8th term if you are part time.

Students may pursue any specialization, but some courses may only be offered on certain campuses or online. Students should plan their program of study carefully with their academic advisor. All specialization options have a minimum GPA of 2.25.

Specializations available:

Conservation Law Enforcement
Ecological Restoration
Environmental Disaster Management
Fish and Wildlife Conservation
Forest Ecosystems
Human Dimensions
Individualized Specialty Option (student designed)
Landscape Analysis
Policy and Management
Urban Forest Landscapes
Natural Resourced Education
Wildland Fire Ecology

Natural Resources Accelerated Masters Platform

You can get a jumpstart on your Master of Natural Resources (MNR) while finishing your undergraduate degree in Natural Resources!
The Accelerated Master's Platform (AMP) allows undergraduate OSU Natural Resources students to take graduate level courses that will be applied to their B.S. degree and transfer those courses to OSU's Master of Natural Resources program. Students apply to the AMP program after completing at least 105 credits in their undergraduate degree program and then, if accepted, matriculate into the master's program immediately after graduation. Up to 22 graduate credits can be transferred and with careful planning full-time students could complete a master's degree within 1 year of finishing their bachelor's degree. Financial aid is applicable to the graduate level courses that are taken for the undergraduate degree.

The Master of Natural Resources degree is currently offered through Ecampus only. The Natural Resources B.S. degree is offered on the Corvallis Campus, OSU-Cascades and Ecampus.

Who is eligible for the AMP program?
All Natural Resources undergraduate students can apply if they meet the admission criteria. Unfortunately, the AMP program is not open to Post Baccalaureate students at this time.

What are the admission criteria?
Applicants must have a cumulative GPA of at least 3.25 or above and have completed 105 credits in their undergraduate program. Applicants should also complete the WIC course for the Natural Resources B.S. before applying to the Accelerated Masters Platform.

How do I apply?
The first step is to meet with the AMP Program Coordinator (Terina McLachlain). The program coordinator will help you prepare your application materials which include: 3 letters of reference, a completion plan that includes the graduate level courses that will be taken, and a statement of graduate research or project objectives. One of the letters must be from the applicant's potential graduate faculty advisor. It will be the applicant's responsibility to find the graduate faculty advisor who will agree to mentor the student through both the AMP and the MNR academic programs. The deadline to submit the application is 3 terms prior to anticipated graduation from the undergraduate degree. However, submitting your application at least 6 terms prior to graduation is preferred as it will allow you to use the most of the 22 allowable graduate credits. No GRE is required for AMP students and the graduate school admission fee is waived.

How do I find a graduate faculty advisor?
A list of possible faculty advisors will be provided but any OSU faculty member could potentially serve as a graduate faculty advisor if they are willing to do so. Students will reach out personally or through email to request a faculty member as an advisor. Applicants should find an advisor who has an area of research and expertise that is relevant to the student's proposed research or project.

What requirements do I need to meet to stay in the AMP program?

- All graduate level coursework to be applied to the MNR must be 3.0 or better.
- Students must maintain a cumulative 3.0 GPA in their undergraduate program to remain in the program.

Are there required classes in the Accelerated Master's Program?

AMP students will be required to take MNR 560 Master's Case Study in place of NR 455 NR Decision Making (4 credits) as the capstone course for the Natural Resources undergraduate program. Additionally, they will be required to take FES 585 Consensus and Natural Resources (3 credits) which will replace FES 485 in the Interdisciplinary Foundations block of the undergraduate program. Other suggested courses are FES 545 Ecological Restoration (3 credits) and FES 586 Public Lands Policy and Management (3 credits). Many other graduate level courses can be applied to the undergraduate major requirements.

In preparation for courses in the MNR program AMP students should take the 2XX series of biology or an equivalent transferable biology series for science majors. In most cases they should have also completed BI 370 General Ecology or an equivalent and ST 351 Statistical Methods as well - although that would not necessarily prevent a candidate from being accepted for AMP. Careful planning will ensure that any prerequisite courses for graduate level courses will be taken as an undergraduate.

Will I be automatically admitted to the MNR degree program when my bachelor's degree is finished?

After completion of the Natural Resources B.S. degree program all AMP participants will be reviewed and if eligible will be fully admitted to the graduate program. Application to the MNR program is competitive and not all applicants who meet the application criteria will be admitted.

Who should I contact if I am interested in the AMP program?

AMP Program Coordinator
Terina McLachlain, NR Program Coordinator/Academic Advisor/AMP Coordinator
541-321-8651 (home office) **OR** 541-737-2088 OSU office
terina.mclachlain@oregonstate.edu
https://gradschool.oregonstate.edu/accelerated-masters-platform

NOTE: The Accelerated Masters Platform is a competitive program and not all who apply will be accepted.

Experiential Learning: Internships, Projects, Study Abroad

The Natural Resources program offers several ways for you to use experiential learning in your academic program. While not required, these credit-bearing opportunities provide valuable hands-on experience that can prepare you to work in your field and build your resume before you graduate. You can use up to 6 credits of related experiential learning in your area of specialization or another major requirement if petitioned and approved in advance. You should declare your specialization option before submitting a proposal for a project, internship, or study abroad credits that is related to your specialization. You will need to register for credits in the same term that you are actively working on the project, internship, or study abroad. For example, summer internships will require you to register for summer term. Experiential learning may encompass more than one term, but you would need to register for credits for each term in which you are actively engaged. Ideally, you should submit your proposal for your experiential learning credits at least TWO TERMS prior to the beginning of the term in which it occurs but minimally allow at least 1-2 months to get your proposal approved.

NR 406 Project

A project is appropriate for those students who are interested in gaining skills in a very specific academic area or conducting undergraduate research. You may design your own project, work on a project with an agency, non-profit or community organization or assist a faculty member with their research. A faculty mentor will supervise your project and provide a grade for the project at the end of the term. Finding the faculty mentor is the responsibility of the student but your academic advisor can point you toward resources to help with your search. (Note: You may also have a site supervisor depending on the nature of the project.) Projects can be graded on a Pass/No Pass or A-F grading basis. You will submit a proposal that includes a description of your project, the learning objectives, the final product that documents your learning (e.g. paper, website, site plan, display, poster, etc.) You will pay the typical tuition fee per credit as you would for any other credit-bearing class. If you are conducting undergraduate research you can apply to have that noted on your OSU transcript.

NR 410 Internship

An internship is similar to a project but may have a broader focus and include more general skills. Both internships and projects require defined learning objectives and a final academic project (e.g., research paper, blog, site plan, website, poster, display, project, etc.) An internship might be a seasonal job, field work or part-time work over an extended period. It is different from a project because a Site Supervisor is *required* as well as an OSU Internship Supervisor. The Site Supervisor will provide expertise in the field and an assessment of your work upon completion of the internship. The OSU Internship Supervisor will monitor your progress and assign the grade. Internships can be graded on a Pass/No Pass or A-F grading basis. You will submit a professionally written proposal that includes a description of your project, the learning objectives, and the final product that documents your learning. The research paper (or other product or deliverable) will be graded by the OSU Internship Supervisor. You can find many internships and seasonal work positions posted on the College of Forestry Jobs and Internships webpage.

Templates for the petition forms for NR 406 and NR 410 can be found on the NR Program website.

**One credit is equal to 30 hours of academic related work*

Study Abroad

The College of Forestry International Programs organizes three types of opportunities abroad: Faculty-Led Programs, Exchange & Study Abroad and Internships & Research. These credit-bearing opportunities are eligible for university and college scholarships. *Faculty-led programs* are led by College of Forestry Faculty. These programs study a specific theme or focus, are eligible for academic credit and are usually shorter than the length of a term. Often, they are conducted during breaks such as summer or spring break. These are ideal for working students or Ecampus students who would like a short-term hands-on intensive experience. *Exchange programs* are typically a semester or academic year and integrate into a host university's academic and student community. *Study abroad programs* vary in duration and focus and can include intensive language or field studies for single and multiple terms abroad. *International internships* allow students to pursue professional level work experience overseas while receiving academic credit. Most international internships are a minimum of ten weeks in duration and can take place any time of the year. The College of Forestry and partner programs offer internships all over the world! In addition, OSU Global Opportunities has a wide range of programs and scholarships.

Schedule an appointment with the College of Forestry International Programs office, to discuss which opportunity would best fit your goals and schedule. Planning early is key to a successful international experience.

Rachael Fahrenbach
Semester exchanges and internships
Rachael.Fahrenbach@oregonstate.edu
Office: Peavy Forest Science Center (PFSC) 116-N
(541) 737-4601

Schedule an appointment with Rachael here!

Rabeb Zghal
Short-term faculty led and semester exchanges
rabeb.zghal@oregonstate.edu
Office: Peavy Forest Science Center (PFSC) 116-N
541-737-7738

Schedule an appointment with Rabeb here!

Natural Resources Major Requirements

*=Baccalaureate Core / ^ =WIC (Writing Intensive Course) / + = Core Ed
CORV= CORVALLIS CAMPUS, CASC= CASCADES CAMPUS, ECMP = ECAMPUS / FALL = F, WINTER = W, SPRING = S, SUMMER = U

INTERDISCIPLINARY FOUNDATIONS (13 credits) REQUIRED							
Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
NR 201+	Managing NR for the Future	3	F	U,F,W,S	F	Core 100 or CORE 300. May be taken concurrently. Post Bacc students may request a prerequisite override.	Prerequisites are waived for those admitted prior to Summer 2025 with Baccalaureate Core or Post Bacc Students. Must submit override request here..
NR 202	NR Problems and Solutions	3	F,W	U,F,W,S	W	Recommend NR 201.	
FES 485*	Consensus and NR	3	F,W,S	U,F,W,S	W,S,F		Upper class standing. This class has significant group work and should be taken toward the end of your academic program and BEFORE NR 455.
NR 455+	Natural Resource Decision Making	4	W,S	U,F,S	F	(NR 201, FE 007, FOR 007 or WSE 007) and (FES 485 or 485H) and one of the following WIC: (BI 371, 373, ENSC 479, 321, FE 460, 463, FES 486, FW 435, FOR 460, 463, FW 439, 454, 497, GEOG 323, HORT 318, SOIL 395, WR 462, CROP 325, SOIL 325 or SUS 325).	Senior Standing. This class has significant group work. Should be taken in the last year of your academic program. NO SUBSTITUTES.

ADVANCED COMMUNICATION (6-8 credits)

Lower Division courses allowed if they meet specific learning objectives.

ADVANCED COMMUNICATION							
CHOOSE ONE (3-4 credits)							
Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
AG 351*	Communicating Global AG & NR Issues	3	F	U,F,W,S			
AG 445	Social Media Advocacy in Ag Sci and Natural Resources	3		S			
AG 455*	Risk and Crisis Communications in Ag Sci and NR	3		W			
COMM 321+	Introduction to Communication Theory	3	F,W	U	F	CORE 100*, 300*, BA 100*, 300*, ED 100*, 300*, LA 100*, 300*, SCI 100*, 300*, ENGR 110*, 110H*, 310* or minimum score of 1 in 'Baccalaureate Core Student'. * May be taken concurrently.	

COMM 322	Small Group Problem Solving	3			W	Recommend COMM 218z [was COMM 218].	
COMM 226+	Intercultural Communication	3	W	F			Formerly COMM 326
COMM 324	Communication in Organizations	3	F				No Freshman
COMM 328	Nonverbal Communication	3					Not currently scheduled.
COMM 385	Communication in Cyber Space	3		U,F,S			
COMM 440	Theories of Conflict and Conflict Management	3				Recommend COMM 321	Not currently scheduled.
COMM 442	Bargaining and Negotiation Processes	3				Recommend COMM 321	Not currently scheduled.
ENSC 321^	Environmental Case Studies	3	F,S	U,F,W,S	W	Recommend WR 121z and one year of college bio; critical thinkings, problem solving and writing skills	
FES 430	Forest as Classroom	4		F,S			
GEOG 202+	Maps, Media and Communication	3	W				
GEOG 453	Effective Communication of Environmental Change Science	3	F				
NR 312	Critical Thinking for NR Challenges	3					Not currently scheduled.
TRAL 493	Environmental Interpretation	4	S	U,F, W			
WR 227z+*	Technical Writing	4	F,W,S	U,F,W,S	F,W,S	WR 121Z or minimum score of 1 in 'Exam for Waiver - WR 121'. Minimum C-.	
WR 323+*	Adv Writing and Argumentation	3	F,W,S	U,F,W,S	F,W	WR 121Z or minimum score of 1 in 'Exam for Waiver - WR 121'. Minimum C-.	
WR 362+*	Science Writing	3	F,W	U,F,W,S		WR 121Z or minimum score of 1 in 'Exam for Waiver - WR 121'. Minimum C-.	
WR 375+	Writing for the Natural Sciences	3	F			WR 121Z with minimum C-.	
WR 462^	Environmental Writing	4	S	F,W,S		WR 121Z with minimum C-.	

WRITING INTENSIVE COURSE (WIC course may double count in CORE ED requirements and major/specialization)

CHOOSE ONE (3-4 credits)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
CROP/SOIL/ SUS 325^	AG and Environmental Predicaments	3					Not currently scheduled.
ENSC 321^	Environmental Case Studies	3	F,W,S	U,F,W,S	W	Recommend WR 121 and one year of college bio; critical	

						thinkings, problem solving and writing skills	
FES 486^	Public Lands Policy and Management	3	F, S	U, F,W,S	W		Sophomore standing recommended.
FOR/FE 463^	Forest Policy and Regulation	3	F,W			No Freshman/Sophomore.	
FW 497^	Aquaculture	3				Recommended 9 credits of upper division biology.	Not currently scheduled.
GEOG 323^	Climatology	3	F	W,S		ATS 201 or OC 201 or GEO 202 or GEO 221 or GEOG 102 or OC 201. OC 201 requires a minimum grade of C-. All others are minimum D-.	
PS 300^	Research Methods	4	F,W,S	U,F,W,S			
RNG 491^	Rangeland Management and Planning	4		W		RNG 341	
SOIL 395^	World Soil Resources	3		F,S		CH 121 or CH 201 or CH 221z or CH 231	
WR 462^	Environmental Writing	4	S	F,W,S		WR 121Z with minimum C-.	

BIOPHYSICAL SCIENCES (30 - 36 credits)

BIOLOGY

(12 - 15 credits minimum with labs)

COMPLETION OF FULL 200 LEVEL SERIES IS PREFERRED AND REQUIRED FOR MOST SPECIALIZATIONS (See Note Below)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
BI 101+*	Environmental Biology: Ecology, Conservation, Global Change	4	U,F	F	F		Students who take the BI 1XX series will be limited in their choices for their specialization and courses. They would only be able to choose RNG 121 or FES 341 Forest Ecology for the Ecology requirement. If choosing FES 341 they MUST take FES 240 Forest Biology as their Terrestrial Ecosystems class as this is the prerequisite to FES 341 Forest Ecology. BI 370 is a required prerequisite for many Fish & Wildlife, Zoology, Botany, and Forestry classes. You must take the BI 2XX series if you need BI 370 General Ecology for your specialization. See note below about the specializations that **require** BI 370.
AND							
Z 102+* (was BI 102)	Animal Biology: Genes, Behavior, and Evolution of Life	4	W	U,W	U,W		
AND							
B1 103+*	Human Biology: The Human Body, Health and Disease	4	S	S	S		
OR							

BI 204+*	Introductory Biology I	5		F,W,S		Minimum grade C- to move on to BI 205 and BI 206.	Restricted to Ecampus only
AND							
BI 205+*	Introduction to Biology II	5		W,S		BI 204 (min C-) and CH 121 or 201 or (CH 221z [was CH 231] and CH 227z [was CH 261]) with D- or higher.	Restricted to Ecampus students only
AND							
BI 206+*	Introduction to Biology III	5		F,S		BI 204 (min C-) and CH 121 or 201 or (CH 221z [was CH 231] and CH 227z [was CH 261]) with D- or higher.	Restricted to Ecampus students only
OR							
BI 221z*	Principles of Biology: Cells	5	U, F		F	CH 121 or 201 or CH 221 or (CH 221z and CH227z [was CH 231&CH261]). Minimum grade of D- is required. Chem may be taken concurrently.	Corvallis and Cascades students only. Offered at some Oregon Community colleges.
AND							
BI 222z*+	Principles of Biology: Organisms	5	U,W		W	BI 221z and (CH 121 or 201) or (CH 221z and CH 227z [was CH 231 &CH 261]).. Minimum grade of C- is required on BI 221. D- in remaining prereqs.	Corvallis and Cascades students only. Offered at some Oregon Community colleges.
AND							
BI 223z*+	Principles of Biology: Populations	4	U,S		S	BI 221z and (CH 121 or 201) or (CH 221z and CH 227z [was CH 231 & CH 261]).. Minimum grade of C- is required on BI 221. D- in remaining prereqs.	Corvallis and Cascades students only. Offered at some Oregon Community colleges.

NOTE:
Choosing the appropriate biology series is one of the foundational steps in the Natural Resources major and is dependent on the career path or area of specialization that you choose. Read this information carefully and talk with your advisor about which series is best for you. Completing the biology series early in your academic program will facilitate a smooth progression through other coursework.

The **BI 2XX** level of biology is **REQUIRED** for these specializations:
Ecological Restoration, Fish and Wildlife Conservation, Forest Ecosystems, Wildland Fire Ecology and Urban Forest Landscapes. Students who may want to participate in the Accelerated Masters Platform should take the BI 2XX series to prepare for graduate school. A full year of BI 2XX is a required prerequisite for most Fisheries and Wildlife classes.

The **BI 1XX** series ***can*** be used in these specializations:
Conservation Law, Human Dimensions, Policy and Management, *NR Education, and Landscape Analysis. However, taking the BI1XX series of biology will limit your course choices in other requirements for the major and for electives that you may choose for these specialty options.

*Students pursuing the NR Education Specialization who are also pursuing Oregon teacher licensure for middle/high school science should take the BI2XX series for Content Mastery to teach Integrated Science.

The entire BI2XX is a prerequisite for BI 370 General Ecology which itself is a prerequisite for many other classes. A biology for science majors' series is sometimes required for federal/state jobs. It may be required in an Individualized Specialty Option depending on the disciplinary focus.

Our recommendation is that all students take the "STEM majors biology series" so you have the widest range of course choices and are well prepared for any future employment opportunities! (BI 204/205/206 for Ecampus students OR BI 221z/222z/223z for on-campus students)

CHEMISTRY

CHOOSE ONE (5 CREDITS)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
CH 121+	General Chemistry	5	F,W	U,F,W,S	F	Working knowledge of HS Algebra, logarithms and scientific notations	Suggest you complete MTH 111z [was MTH 111] and/or take the ALEKS math placement test and work in the tutoring modules before taking this class if you have not had high school algebra or any math classes recently.
CH 221z*	General Chemistry I	4	F, W	U	F	CORV- Co-requisite of CH 227z lab. Hybrid with both campus and online components. Prerequisites of MTH 111z or MTH 112z or MTH 251z or MTH 252z or MTH 254 with C- or better (or ALEKS score of 60 or above. MTH may be taken concurrently.	Not a CORE ED Scientific Inquiry and Analysis class unless you take the on-campus lab course as well (CH 227z). Lab for this course is **not** offered online. Ecampus students should take CH 121. Formerly CH 231.
AND CH 227z+*	General Chemistry I Lab	1	U,F,W	Lab not offered online	F	Required Lab for CH 221z.	Formerly CH 261.

CLIMATE SCIENCE

CHOOSE ONE (3-4 CREDITS)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
ATS 201+*	Climate Science	4	F,W,S	U,F,W,S	S		
ATS 341+*	Snow, Smoke and Storms: Climate Change Impacts in the PNW	3	W				No Freshman or Sophomore.

GEOG 323^	Climatology	4	F	W,S		ATS 201 or OC 201 or GEO 202 or GEO 221 or GEOG 102 or OC 201. OC 201 requires a minimum grade of C-. All others are minimum D-.	
SUS 103+*	Intro to Climate Change	4	F,W,S	U,F,W,S			

LAND SCIENCE

CHOOSE ONE (4 CREDITS)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
CSS 205+*	Soil Science	4		U,F,W,S			Course requires lab kit for additional fee, which must be purchased through the OSU Beaver Store. Order lab kit no later than the start date of the course. Textbook required.
ENSC 210+*	Environmental Earth Science	4		F	F		(Was GEO 221)
GEO 101+*	Planet Earth	4	F	U,W,S			
GEO 201+*	Physical Geology	4	F	W			
GEO 202+*	Earth Systems Science	4	W				
GEO 308*	Global Change and Earth Sciences	3	F,W	U,W,S			
GEO 322	Surface Processes	4	F			GEO 102 or 202 and MTH 251 and PH 201 or 211. Minimum of C- in MTH 251.	No freshman.
GEOG 102+*	Dynamic Planet	4	F	U, FW S			Was "Physical Geography"
SOIL 205+*	Soil Science	3	F,W,S			Co-requisite SOIL 206 or FOR 206	Must take the lab concurrent with lecture and need both in order for it to meet the Core Ed Scientific Inquiry and Analysis requirement.
And FOR 206*+*	Forest Soils lab for SOIL 205	1	S			Co-requisite SOIL 205	
or SOIL 206+*	Soil Science Lab for SOIL 205	1	F,W,S			Co-requisite SOIL 205	

WATER SCIENCE

CHOOSE ONE (3-4 CREDITS)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
FE 430	Watershed Processes	4		W		Proficiency in Algebra required	Junior/Seniors only

FE 434	Forest Watershed Management	4	F			(CH 121 or CH201 or CH21z, 231) and (SOIL 205 or CSS 305 or CSS 205) and (MTH 241 or MTH 251). All with C- minimum grade.	
GEO 387	Environmental Hydrogeology	3		W		MTH 112z and (GEO 201,202, 221, ENSC 210, SOIL 205 or CSS 205). All with C- minimum	
GEOG 340*	Introduction to Water Science and Policy	3	F	U, W, S	F		
GEOG 424	Hydrology for Water Resources Management	3	W			ST 314 or ST 351	
OC 201+*	Oceanography	4	F, W	U,F,S			
OC 202+*	Introduction to Biological Oceanography	4	W				
OC 332	Coastal Oceanography	3	W, U (HMSC)			OC 201 with min C-.	

ECOLOGY

CHOOSE ONE (3-4 CREDITS)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
BEE 270	Ecology for Engineers	3	F				
BI 351	Marine Ecology	3	W	F,W		BI 221z/222z/223z OR BI 204/205/206. A minimum grade of C- in all.	
BI 370	General Ecology	3	F,W,S	U, F,W,S	W	BI 221/222/223 or BI 221z/222z/223z OR BI 204/205/206. A minimum grade of C- in all.	***Required in some specialization options and a prerequisite for many courses in some areas!***
BOT 341	Plant Ecology	4	S	F,W,S		Recommend BOT 321 and BI 223	Fall Ecampus section restricted to BOT
ENSC 341	Tropical Ecology and Conservation	3	F	W		Required: BI 101/102/103 or BI 204/205/206 or BI 221z/222z/ 223z. Recommend BI 370.	
FES 341	Forest Ecology	3	F, W	F, W, S	F	FES 240 or (BI 221z/222z/223z) or (BI 204/205/206) or BI 370	Students who take the BI 1XX series MUST take FES 240 Forest Biology for the Forestry requirement in order to take FES 341Forest Ecology. BI 2XX series is the preferred biology for the NR major.
FW 481	Wildlife Ecology	3		U,S	S	BI 370 or FW 321	
RNG 121*	Introduction to Wildland Ecology	4		U,F,W,S			

MATHEMATICS AND STATISTICS (8 credits)

MATHEMATICS

CHOOSE ONE (4 CREDITS)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
MTH 112z+*	Elementary Functions	4	U,F,W, S	U,F,W,S	W,S	MTH 111z [was MTH 111] C- or better or ALEKS placement test score of 60%	NOTE: MTH 112z or MTH 241z or MTH251 is a required prerequisite for some electives in the Landscape Analysis specialization or the Certificate in GIS.
MTH 241+*	Calculus for Management and Social Science	4	U,F,W,S	U,F,W,S	S	MTH 111z [was MTH 111] C- or better or ALEKS placement test score of 60%	
MTH 245+*	Mathematics for Management, Life and Social Science	4	S	U,W,S	S	MTH 111z [was MTH 111] C- or better or ALEKS placement test score of 60%.	
MTH 251z+*	Differential Calculus	4	U,F,W,S	U,F,W,S	U,F,W	MTH 112z [was MTH 112] C- or better or ALEKS placement test score of 75%.	

STATISTICS

CHOOSE ONE (4 CREDITS)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
ST 243z+	Principles of Statistics	4	F,W, S	U,F,W,S	F,W	High School Algebra.	Students interested in pursuing the Landscape Analysis option or the Certificate in GIS should take ST 351 and MTH 112z [was MTH 112] or MTH 241 or MTH 251 in order to have the greatest choice of electives.
ST 351	Intro to Statistical Methods	4	F,W,S	U,F,W,S	F	High School Algebra with Statistics.	Students who plan to go on to graduate school should take ST 351.Students interested in pursuing the Landscape Analysis option or the Certificate in GIS should take ST 351 and MTH 112z [was MTH 112] or MTH 241 or MTH 251 in order to have the greatest choice of electives.

Note: Students may also take ST243z at an Oregon Community College through the Degree Partnership Program. http://partnerships.oregonstate.edu/

RESOURCE MANAGEMENT (15-21 credits)

ANIMAL SCIENCE

CHOOSE ONE (3-4 CREDITS)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
FES 412	Forest Entomology	3	S			BI 204 or BI 211 or BI 212 or BI 221z with C or higher and/or equivalent.	
FOR 210	Terrestrial Vertebrate Identification and Natural History	3	S	F,S		Recommend one term or year of introductory biology	This course requires mandatory independent 3-hour field trips that students complete each week of the term to hone their skills at identifying terrestrial vertebrates under field conditions.
FW 251	Principles of Fish and Wildlife Conservation	3	W	U,F,W,S	F	Recommend one course in Introductory biology	Corvallis campus restricted to FW majors.
FW 302	Biology and Conservation of Marine Mammals	4	U (HMSC)	F,W,S		BI 221z/222z/223z or BI 204/205/206. Minimum C- in all.	
FW 311	Ornithology	3	F,S	U, F, S	S	BI 221z/222z/223z or BI 204/205/206 required. C- min in BI 221z and BI 204.	No Freshman.
FW 312	Systematics of Birds	3	F	W,S	W	BI 221z/222z/223z or BI 204/205/206 required. C- min in BI 221z and BI 204.	No Freshman
FW 315	Ichthyology	3		U,F,W,S		BI 221z/222z/223z or BI 204/205/206 required. C- min in BI 221z and BI 204.	No freshman.
FW 316	Systematics of Fishes	3		U,W		BI 221z /222z/ 223z or BI 204/205/206, Min of C- in BI 221z and BI 204. Recommend FW315 as co-requisite or prerequisite.	No freshman.
FW 317	Mammalogy	3	W	U,F,W,S		BI 221z /222z/ 223z or BI 204/205/206, Min of C- in BI 221z and BI 204.	No Freshman. Section 401 will be restricted to F&W majors . Section 400 open to Natural Resources.
FW 318	Systematics of Mammals	3	W	U, F,W, S		BI 211z/212z/213z or BI 221z/222z/ 223z or BI 204/ 205/206, Min of C- in BI 221z and BI 204. Min D- in remaining.	No freshman.
~~FW 320~~	~~Introductory Population Dynamics~~	4	W	U, F, W, S		(MTH 227, 241, 245, 251) and (BI 211/212/213) or (BI 221/222/223) or (BI 204/205/206) . A minimum grade of C- is required in BI 221.	No freshman. Now restricted to Fish and Wildlife Conservation Science majors
~~FW 321~~	~~Applied Community and Ecosystem Ecology~~	3	F,S	U, F, W, S		(BI 211/212/213) or (BI 221z/222z /223z) or (BI	Now restricted to Fish and Wildlife Conservation Science majors.

						204/205/206) . A minimum grade of C- is required in BI 221z & Bi 204. Min D- in remaining.	
FW 331	Ecology of Marine and Estuarine Birds	4		S		One year of introductory biology recommended.	No freshman or sophomore.
FW 448	Herpetofauna Conservation and Management	3		F		BI 370 or FW 321	
FW 451	Avian Conservation and Management	3	W	F, W		BI 370 or FW 321	
~~FW 454^~~	~~Fishery Biology~~	~~4~~	~~F~~	~~W~~	-	FW 315 and FW 320 required prerequisites. FW 320 is now restricted to FW majors.	
FW 458	Mammal Conservation and Management	4	S	F,S,		BI 370 or FW 321.	
FW 464	Marine Conservation Biology	3		W,S		BI 370 or BI 371.	
FW 481	Wildlife Ecology			U, S	S	BI 370 or FW 321	
Z 350	Animal Behavior	3	W,S	F,S		(BI 204, BI 205, and BI 206) or (BI 221z,222z, and 223z) A minimum grade of C- is required in all	
Z 365	Biology of Insects	4		S		(BI 211/212/213) or (BI 204/205/206) or (BI 221z/222z/223z) with C- or better	
Z 473	Herpetology	4		F,S		BI 204/205/206 or BI 221z/222z/223z) with minimum grade of C-.	
Z 477	Aquatic Entomology	4			F	(BI 204/ 205/206) or (BI 221z/222z/223z) with C- or better,	Two required Saturday field trips. Exact dates depend on weather. Lecture and Lab. Offered in alternate years.

PLANT SCIENCE

CHOOSE ONE (3-4 CREDITS)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
BOT 101+*	Botany: A Human Concern?	4	S	F,W			
BOT 220+*	Introduction to Plant Biology	4	F	U,W			
BOT 321	Plant Systematics	4	S	U,F		Recommend BI 223.	Fall Ecampus section restricted to BOT.
BOT/FOR 413	Forest Pathology	3	W			BI 204, BI 221z, BI 221, BI 213 or FES 240 with a minimum of C.	
BOT 416	Aquatic Botany	4	F			Recommend BI 213 or BI 223	

BOT 425	Flora of the Pacific Northwest	3	S			Recommend BOT 321.	
BOT 461*	Mycology	4	F	F,S		BI 221z/222z/223z or BI 204/205/206 . Minimum grade of C- in all.	Fall Ecampus section restricted to Bot majors.
FES 240+*	Forest Biology	4	F,S	U,F,S			
FES 241	Dendrology	3	F,S	U,F,S			
HORT 226	Landscape Plant Materials I: Deciduous Hardwoods & Conifers	4	F	F			
HORT 228	Landscape Plant Materials II: Spring Flowering Trees and Shrubs	4	S	S			
RNG 353	Wildland Plant Identification	4	S	U,F	F	Coursework in botany or rangeland sciences.	

AQUATIC ECOSYSTEMS

CHOOSE ONE (3-5 CREDITS)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
BI 150	Introduction to Marine Biology	3	S				
BI 347	Oceans in Peril	3	F			BI 221z/222z/223z or BI 204/205/206. A minimum grade of C- in all.	
BI 351	Marine Ecology	3	W	F,W		BI 221z/222z/223z OR BI 204/205/206. A minimum grade of C- in all.	
FW 323	Management Principles of Pacific Salmon in Northwest	3		U,F,W,S	S		
FW 326	Integrated Watershed Management	3		U,F,W,S	W	FW 251 recommended	No Freshman.
FW 426	Coastal Ecology and Resource Management	5	F (HMSC)	F (Hybrid)			Departmental Approval required. No Freshman or Sophomore. HMSC = Hatfield Marine Science Center.All majors welcome.
FW/OC 434	Estuarine Ecology	4		W		BI 221z/222z/223z or BI 204/205/206. Minimum C- in all.	
FW 456	Freshwater Ecology and Conservation	5	S	W, S		BI 370 or BI 371 required. Recommend 9 credits of upper division biological sciences.	
FW 473	Fish Ecology	4	W	S		BI 370 and FW 315	
FW 479	Wetlands and Riparian Ecology	3		U,F,W,S		BI 370 or FW 321	
GEOG 424	Hydrology for Waters Resources Management	3	W			ST 314 or ST 351	

RNG 455	Riparian Ecohydrology and Management	4	S	W	F		

TERRESTRIAL ECOSYSTEMS

CHOOSE ONE (3-4 CREDITS)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
FES 240+*	Forest Biology	4	F,S	U,F,S			
FES 341	Forest Ecology	3	F, W	F, W, S	F	FES 240 or (BI 221z/222z/223z) or (BI 204/205/206) or BI 370	Students who take the BI 1XX series MUST take FES 240 Forest Biology for the Forestry requirement in order to take FES 341Forest Ecology. BI 2XX series is the preferred biology for the NR major.
FES 342	Forest Types of the Northwest	3		W	F		
FES/HORT 350	Urban Forestry	3		F,W		Foundational Horticulture or Forestry courses recommended.	
FES 440	Wildland Fire Ecology	3	W	W,S	S	Recommended for Juniors or Seniors with coursework in Ecology and Natural Resource Management, analytical, critical thinking and reasoning skills.	
FES/FW 445	Ecological Restoration	4	F,S	U,F, W, S	S	Recommend BI 370	
FES/FW 452	Biodiversity Conservation in Managed Forests	3	W	F,S		Recommend FES 240 or FES 341 or BI 370.	No freshman or sophomore.
FOR 111+	Intro to Forestry	3	F,S	U,W		CORE 100*, 300*, BA 100*, 300*, ED 100*, 300*, ENGR 110*, 310*, LA 100*, 300*, SCI 100* or 300*. * May be taken concurrently.	
FOR 346	Topics in Wildland Fire	3	S	W,S		Recommend coursework in forest biology or ecology such as FES 240 or FES 341	
FOR 441	Silviculture Principles	4	F	F		FES 240 **AND** FES 241 with C minimum in all.	
RNG 121*	Introduction to Wildland Ecology	4		U,F,W,S			
RNG 341	Rangeland Ecology and Management	3		F,W,S	W	BI 221z/222z/22z3 or BI 204/205/206. Coursework in soil science and ecology; analytical, critical thinking and synthesis skills.	
RNG 351	Ecology of Grassland Ecosystems	3		F,S		Recommend RNG 341	
RNG 352	Ecology of Shrubland Ecosystems	3		F		Recommend RNG 341	

RNG 421	Rangeland Restoration and Management	4	S	F		BI 221z/222z/223z or BI 204/205/206 required. Recommend course work in soils and ecology.	
RNG 441	Vegetation Monitoring and Analysis	4		S		BI 221z/222z/223z or BI 204/205/206. Recommend coursework in ecology.	
RNG 442	Rangeland-Animal Relations	4		W		BI 221z/222z/223z or BI 204/205/206 and RNG 341. Recommend coursework in soils and ecology.	
SOIL 366	Ecosystems of Wildland Soils	3	F			SOIL 205 or CSS 205	
SOIL 388	Soil Systems and Plant Growth	4		F		SOIL 205 (and SOIL /FOR 206) or CSS 205 and (CH 121 or CH 221z [was CH 231] and BOT 220 or (BI 204/205205) or (BI 211/212/213) or (BI 221z/222z/ 223z)	
SOIL 395^	World Soil Resources	3		F,W,S		CH 121, 122, 123, 201, 202, 231, 231H, 232, 232H, 233 or 233H.	
SOIL 466	Soil Morphology and Classification	4	F			SOIL 205 or CSS 205	

ENVIRONMENTAL ASSESSMENT AND PLANNING

CHOOSE ONE (3-4 CREDITS)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
CROP/SOIL /SUS 325^	AG and Environmental Predicaments: A Case Study Approach	3					Not currently scheduled.
FES/FW 445	Ecological Restoration	4	F,S	U,F, W, S	S	Recommend BI 370	
FES/HORT455	Urban Forestry Planning, Policy and Management	4		F,W		FES 350 or HORT 350	
FW 462	Ecosystems Services	3		W,S		BI 370 or equivalent recommended.	
GEOG 250+*	Land Use Planning for Sustainable Communities	3	F,S	W			
GEOG 451	Planning Principles and Practices for Resilient Communities	4	F	W		CE202, FE 257 or GEOG 260 with min C-	
GEOG /ENSC 452	Environmental Assessment	3	S			.	
RNG 421	Rangeland Restoration and Management	4	S	F		BI 221z/222z/223z or BI 204/205/206 required. Recommend course work in soils and ecology.	

RNG 457	Habitat Analysis I: Habitat Use and Movement	3		F		FW 251, RNG 341 and MTH 241 and (ST 243z [was ST 201] or ST 351)	NR students who have not had MTH 241 can contact the instructor for an override of the MTH prerequisite. MTH 245 would be allowed.
RNG 491^	Rangeland Management and Planning	4		W		RNG 341	
SUS 304*	Sustainability Assessment	4	F	U,F,W,S	W		
SUS 350+*	Sustainable Communities	4	W,S	U,F,W,S	F		
TRAL 456+	Planning for Sustainable Recreation	4	W	W		TRAL 251 and (TRAL 132, FOR 111 or NR 201) with min C-.	
TRAL 457+	Planning for Sustainable Tourism	4		W		TRAL 251 and (TRAL 132, FOR 111 or NR 201) with min C-.	\
NR 325	Scientific Methods for Analyzing Natural Resource Problems	3		F		MTH111, 111z (C- or better) or score of 60 in ALEKS Math Placement test.	
WSE 385*	Evaluating Sustainability through Life Cycle Analysis	3		S			

SOCIAL AND POLITICAL DIMENSIONS (16-20 CREDITS)

DIFFERENCE, POWER AND OPPRESSION - ADVANCED (This course fulfills the Core Ed DPO-Advanced requirement)

CHOOSE ONE (3-4 CREDITS)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
AG 311+*	Indigenous Agriculture and Subsistence	3	F,W,S	U,F,W,S			
ANTH 411+	Anthropology of Difference, Power and Oppression	4	W				
ENSC/ GEOG 333+*	Environmental Justice	3	F,S	U,W	F,W,S	WR 121. Minimum C- grade.	
FW 340+*	Power and Justice in U.S Natural Resource Management	3	F,W,S	U, F, W, S			No Freshman or Sophomore. (was "Multicultural Perspectives in Natural Resources")
SUS 331+*	Sustainability, Justice, and Engagement	3	W,S	F, W		Recommend completion of Difference, Power and Oppression course; collaboration, critical thinking and synthesis skills.	

NATURAL RESOURCE POLITICS AND POLICY (Choose 2 - must be from different departments)

CHOOSE TWO (6-8 CREDITS)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
AEC 432	Environmental Law	4					Not currently scheduled.
ANTH 472	Contemporary Native Issues	3	F	F,S		3 credits of social science	

ENT 300 / HORT 330+*	Pests, Plagues and Politics	3	S	F,W,S			If course is full check HORT 330 for openings. No Freshman or Sophomore.
ES 444	Native American Law: Tribes, Treaties and the US	4		S			
FES 486^	Public Lands Policy and Management	3	F, S	U, F,W,S	W		Sophomore standing recommended.
FOR 461	Forest Policy Analysis	3					Not currently scheduled.
FOR/FE 463^	Forest Policy and Regulation	3	F,W				
FW 350+*	Endangered Species, Society and Sustainability	3		U,F, W	W	Recommend FW 251.	No Freshman or Sophomore.
FW 415	Fish and Wildlife Law and Policy	3		F,W		Recommend PS 201 or other political science intro course.	
FW 422	Introduction to Ocean Law	3					Not currently scheduled.
GEOG 440	Conflict, Cooperation, and Control of Water in the US	3		W			
GEOG 441	The World's Water	3					Not currently scheduled.
PPOL /PS 371	Public Policy Problems	4	F	W			
PPOL 446	The Policy and Law of US Coastal Governance	4		W			
PPOL 447	Integrated Policy: Food, Energy, Water, Climate	4		U			
PPOL 448	Marine Policy in the United States	4		S			
PS 455*	The Politics of Climate Change	4	W				
PS 473	U.S. Energy Policy	4		S			
PS 475	Environmental Politics and Policy	4	F	U,F,W,S	S (hybrid)	-	
PS 477	International Environmental Politics and Policy	4		F			

ECONOMICS

CHOOSE ONE (4 CREDITS)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
AEC 250+*	Intro to Environmental Economics and Policy	4	S	U,F,W,S		MTH 111z or equivalent is recommended.	
ECON 201z+*	Introduction to Microeconomics	4	F,W,S	U,F,W,S	F,W	Recommend MTH 111z [was MTH 111]	. (was ECON 201)

SOCIAL AND ETHICAL ISSUES

CHOOSE ONE (3-4 CREDITS)

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
AEC 253*	Environmental Law, Policy and Economics	4	W,S	U,F,W,S			
AG 201+*	Indigenous Ecosystem Sciences in PNW Regions	3	F	U,F,W			(was AG 301)
ANTH 352+*	Anthropology, Health and Environment	3					Not currently scheduled.
ANTH 477	Ecological Anthropology	3		U,F,S		Recommend 3 credits social science and Jr/Sr standing	
ANTH 481*	Natural Resources and Community Values	3	F (honors),W	U,F,W,S		Recommend 3 credits of social science.	
ANTH 482*	Anthropology of International Development	4		U			
BOT 301*	Human Impacts on Ecosystems	3	W			One year of biology or chemistry recommended.	Was BI 301.
FES 365*	Issues in Natural Resource Conservation	3		U,W	W		
FW 324+*	Food from the Sea	3	S	U,F,W,S			No Freshman or Sophomore.
FW 325+*	Global Crises in Resource Ecology	3		F,W,S			No Freshman or Sophomore.
GEO 306+*	Minerals, Energy, Water and the Environment	3	S	U,F,W			
GEO 307*	National Park Geology and Preservation	3	F	U, S			
GEOG 100+*	Climate Justice	3	F,W	U,S			
GEOG 203+*	There is no Plan(et) B: Human-Environment Geography in the Anthropocene	3	W	F,S			
GEOG 240*	Human Dimensions of Climate Change	3	W	S			
GEOG 241+*	Transforming Environmental Conflicts	3	F	W,S			
GEOG 242+	Urban Aqua Networks: Ancient to Modern	3					Not currently scheduled.
GEOG 300+*	Sustainability for the Common Good	3	F, W,S	U,F,W,S			No Freshman or Sophomore.
GEOG 430	Resilience-Based Natural Resource Management	3		S			
HST 481*	Environmental History of the United States	4	W	U, F, S		HST 201, 202, 203 recommended	No Freshman or Sophomore.
MAST 201+	Humans and the Ocean	3	F	W,U		CORE 100 or 300, BA 100 or 300, ED 100 or 300, ENGR 110 or 310, LA 100 or 300, SCI 100 or 300. May be taken concurrently.	
MAST 300+	Society, Culture and the Marine Environment	4	W			MAST 201 or NR 201. Min of C-	
NR 312	Critical Thinking for NR Challenges	3					Not currently scheduled.
NR 380	Nature in Literature over the Centuries	3					Not currently scheduled.
OC 333*	Oceans, Coasts and People	3	F,S	U,W		Recommend OC 201	NOT a CORE ED class if taken as OC 333

O R	OC 203+	Oceans, Coasts and People	3				Offered in alternate term than OC 333	CORE ED Social Science if taken as OC 203
PHL 440*		Environmental Ethics	3	S			PHL 205 and PHL 342 and PHL 365 or 6 credits of philosophy and sophomore standing	
PHL/REL 443*		World Views and Environmental Values	3	F, W,S	U, F, W, S		One introductory-level science course	Sophomore standing
ES/PHL/REL 448		Native American Philosophies	4		W			
PPOL 441/SOC 482*		Energy, Climate and Society	4		W			
SOC 280+		Introduction to Environment and Society	3	S	W			
SOC 381		Social Dimensions of Sustainability	4	W	W,S			
SOC 475		Rural Sociology	4					Not currently scheduled.
SOC 480*		Environmental Sociology	4	F (hybrid)	U			Corv section: No Freshman or Sophomore Ecampus Section: No Freshman
SOC 481*		Society and Natural Resources	4	S	U, F, W,S			No freshman.
SUS 420		Social Dimensions of Sustainability	3		W			
TRAL 251		Recreation Resource Management	4	F	S	W		
TRAL 351		Outdoor Recreation on Public Lands	4	W	F,S		TRAL 251 with minimum of C-	
TRAL 353		Nature, Eco and Adventure Tourism	3	F				
TRAL 354		Communites, Natural Areas, and Tourism	3	W	F			
TRAL 357*		Parks and Protected Areas Management	3	F	S	F		
WGSS 440*		Women and Natural Resources	3		U,W,S			

SPATIAL ANALYSIS (4 CREDITS)

SPATIAL ANALYSIS							
CHOOSE ONE (3-4 CREDITS)							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisite**	**Restrictions/Advising Notes**
CROP/ HORT 414	Precision Agriculture	4	S	S		Access to a computer with a valid Windows or Mac operating system is required for this course. Google Chromebooks will not be compatible with the required software.	
FE 257	GIS and Forest Engineering Applications	3	W	F			
FW 303	Survey of Geographic Information Systems	3		U,F,W,S			NOT a lab/skills class.

GEOG 201+*	Foundations of Geospatial Science and GIS	4	F,W,S	U,F,W,S			
GEOG 360	Geoscience I: Geographic Information Systems and Theory	4	F,W,S	U,F,W,S	W		

Conservation Law Enforcement

MEASUREMENT AND ANALYSIS (2-3 credits) CHOOSE ONE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisite**	**Restrictions/Advising Notes**
CROP/ HORT 414	Precision Agriculture	4	S	S		Access to a computer with a valid Windows or Mac operating system is required for this course. Google Chromebooks will not be compatible with the required software.	
FE 257	GIS and Forest Engineering Applications	3	W	F			
FES 422	Research Methods for Social Science	4	W	S	S	ST 243z [was ST 201] or ST 351	
FW 255	Field Sampling of Fish and Wildlife	3	F, S	U,F, W,S	S	Recommend WR 121 and familiarity with personal computers recommended.	Corvallis section restricted to F&W majors. Ecampus restricted to online students until wk 10
FW 328	Wildlife Capture and Immobilization	2					Not currently scheduled
GEOG 201+*	Foundations of Geospatial Science and GIS	4	F,W,S	U,F,W,S			
GEOG 360	Geoscience I: Geographic Information Systems and Theory	4	F,W,S	U,F, W,S	W		
FOUNDATIONS OF CONSERVATION LAW ENFORCEMENT (15 credits) REQUIRED							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisite**	**Restrictions/Advising Notes**
COMM 318	Advanced Interpersonal Communication	3	W,S			COMM 218+ or 218z+*	The prerequisite of 218z+* can be taken for the Comm requirement in Core Ed. .
OR COMM 226+	Intercultural Communication	3	W	F			Formerly COMM 326
OR COMM 328	Nonverbal Communication	3					Not currently scheduled
FW 251	Principles of Fish and Wildlife Conservation	3	W	U,F,W,S	F	Recommend one course in Introductory biology	Corvallis campus restricted to FW majors.
SOC 241	Introduction to Crime and Justice	3	W	F			
TRAL 357*	Parks and Protected Area Management	3	F	,S	F		
WR 362+*	Science Writing	3	F,W	U,F,W,S		WR 121Z or minimum score of 1 in 'Exam for Waiver - WR 121'. Minimum C-.	
OR WR 375+	Writing for the Natural Sciences	3	F			WR 121Z with Minimum C-.	

CONSERVATION AND MANAGEMENT (6-9 credits) CHOOSE TWO							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisite**	**Restrictions/Advising Notes**
FES/FW 452	Biodiversity Conservation in Managed Forests	3	W	F,S		Recommend FES 240 or FES 341 or BI 370.	No freshman or sophomore.
FW 426	Coastal Ecology and Resource Management	5	F (HMSC)	F (Hybrid)			Departmental Approval required. No Freshman or Sophomore. HMSC = Hatfield Marine Science Center. All majors welcome.
FW 448	Herpetofauna Conservation and Management	3		F		BI 370 or FW 321	
FW 451	Avian Conservation and Management	3	W	F, W		BI 370 or FW 321	
FW 458	Mammal Conservation and Management	4	S	F,S		BI 370 or FW 321.	
RNG 341	Rangeland Ecology and Management	3		F,W,S	W	BI 221z/222z/22z3 or BI 204/205/206. Coursework in soil science and ecology; analytical, critical thinking and synthesis skills.	
HUMAN DIMENSIONS OF CONSERVATION LAW ENFORCEMENT (3-4 credits) CHOOSE ONE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisite**	**Restrictions/Advising Notes**
HDFS 201+*	Contemporary Families in the U.S.	3	F,W,S	U,F,W,S	F,S		
HDFS 444	Family Violence and Neglect	4	F,W,S	U, F,W,S	W	Recommend 6 credits of HDFS, SOC, PSY.	
PSY 360	Social Psychology	4	F,W	U,F,W,S	W	PSY 201 or 201z and PSY 202 or 202z. With minimum C- in both	
SOC 312*	Sociology of the Family	4		U			
SOC 381	Social Dimensions of Sustainability	4	W	W,S			
SOC 441	Criminology and Penology	4	F	S			No Freshman.
SOC 448	Law and Society	4				SOC 204 recommended.	Not currently scheduled.
SOC 449	Law, Crime and Policy	4	S				No Freshman.
SUS 420	Social Dimensions of Sustainability	3		W			
FISHERIES, WILDLIFE AND ENVIRONMENTAL LAW (2-4 credits) CHOOSE ONE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisite**	**Restrictions/Advising Notes**
AEC 253*	Environmental Law, Policy and Economics	4	W,S	U, F,W, S			
AEC 432	Environmental Law	4	S	S			Not currently scheduled
FW 341	Fish and Wildlife Law Enforcement	2					Restricted to students with the Conservation Law Enforcement Option, F&W Majors. Requires one weekend field trip in Corvallis Not currently scheduled.
FW 415	Fish and Wildlife Law and Policy	3		F,W		Recommend PS 201 or other political science intro course.	
FW 422	Introduction to Ocean Law	3					Not currently scheduled.

ELECTIVES (Select a minimum of 9 credits of appropriate coursework)
Students will choose elective credits of appropriate coursework approved by an advisor from related fields such as criminal justice, fish and wildlife, forestry, recreation, anthropology, sociology, psychology and natural resources.
**=Baccalaureate Core / ^ =WIC (Writing Intensive Course) / + = Core Education (for students admitted Summer 2025 onward.)* *CORV= CORVALLIS CAMPUS, CASC= CASCADES CAMPUS, ECMP = ECAMPUS / FALL = F, WINTER = W, SPRING = S, SUMMER = U*
Note: Up to 6 credits of appropriate internships, projects or study abroad may be used to fulfill credit requirements as approved by petition.
Option Code: 787 **Total Credits** = 37

Ecological Restoration

MEASUREMENT AND ANALYSIS (3-4 credits) CHOOSE ONE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisite**	**Restrictions/Advising Notes**
BI 375	Field Methods in Ecological Restoration	4			U	Full year of biology required: (BI 211 /212/213) or (BI 204/205/206) or (BI 221z/222z/223z) all with C- minimum grade.	Taught in Bend in a condensed summer term. This is a field-based course with multiple nights camping. Students responsible for some aspects of personal food costs, camping gear, and weekend lodging (OSU-Cascades Residence Hall is available). CORV and DSC students will need an override to register, and all students will need to apply. Only 10 students are accepted. Talk to your advisor about the application process.
BOT 440	Field Methods in Plant Ecology	4		U,S		Recommend an ecology course and statistics.	
CROP/ HORT 414	Precision Agriculture	4	S	S		Access to a computer with a valid Windows or Mac operating system is required for this course. Google Chromebooks will not be compatible with the required software.	
FE 257	GIS and Forest Engineering Applications	3	W	F			
FE 208	Forest Surveying	4	F,W	S		MTH 112 or MTH 241 or MTH 245 or MTH 251 or MTH 252 with C or better.	
GEOG 201+*	Foundations of Geospatial Science and GIS	4	F,W,S	U,F,W,S			
GEOG 360	Geoscience I: Geographic Information Systems and Theory	4	F,W,S	U,F, W,S	W		
NR 325	Scientific Methods for Analyzing Natural Resource Problems	3		F		MTH111z (C- or better) or score of 60 in ALEKS Math Placement test.	
RNG 441	Vegetation Monitoring and Analysis	4		S		BI 221z/222z/223z or BI 204/205/206. Recommend coursework in ecology.	
RESOURCE ECONOMICS (3-4 credits) CHOOSE ONE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
AEC 351*	Natural Resources Economics & Policy	3	W	F, S		AEC 250 or ECON 201z. MTH111z is recommended.	
AEC/ECON 352*	Environmental Economics and Policy	3	F,S	U,F,W,S	W	AEC 250 or ECON 201z	
AEC 353*	Introduction to Coastal and Marine Resource Economics	3				MTH 111 and AEC 250 or ECON 201z. All with C- or above.	Not currently scheduled.

FOR 329	Forest Resource Economics I	4	W			ST 243z (was ST 201) or ST 351	
FOR 431	Economics and Policy of Forest Wildland Fire	4	S	S		AEC 250 or ECON 201z or FOR 330 with minimum C.	
FOUNDATIONS OF ECOLOGICAL RESTORATION (25 - 27 credits) REQUIRED							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/ Advising Notes**
BI 370	General Ecology	3	F,W,S	U, F,W,S	W	BI 221/222/223 or BI 221z/222z/223z or BI 204/205/206. A minimum grade of C- in all.	
BOT 321	Plant Systematics	4	S	U,F		Recommend BI 223.	Fall Ecampus section restricted to BOT majors
OR BOT 341	Plant Ecology	4	S	F,W,S		Recommend BOT 321 and BI 223	Fall Ecampus section restricted to BOT majors.
CH 122*	General Chemistry	5	W,S	U,F,W,S	W	CH 121 or CH 201 or CH 221z [was CH 231] with C- or better	
OR CH 222z*	General Chemistry II (was CH 232)	4	W	U	W	Co-requisite of CH 228z. Prerequisite of CH 221z [was CH 231] and CH 227z lab [was CH 261] with C- or better	
AND CH 228z*	General Chemistry II Lab	1	U, W	Lab not offered online.	W	Required Lab for CH 222z (was CH 262)	
FES/FW 445	Ecological Restoration	4	F,S	U,F, W, S	S	Recommend BI 370	
FW 479	Wetlands and Riparian Ecology	3		U,F,W,S		BI 370 or FW 321.	
OR RNG 455	Riparian Ecohydrology and Management	4	S	W	F		
GEOG 250+*	Land Use Planning for Sustainable Communities	3	F,S	W			
OR GEOG 451	Planning Principles and Practices for Resilient Communities	4	F	W		CE202, FE 257 or GEOG 260 with min C-	
OR GEOG /ENSC 452	Environmental Assessment	3	S				
SOIL 366	Ecosystems of Wildland Soils	3	F			SOIL 205 or CSS 205	
OR SOIL 388	Soil Systems and Plant Growth	4		F		SOIL 205 (and SOIL /FOR 206) or CSS 205 and (CH 121,CH 201, or CH 221z) and BOT 220 or (BI 204/205205) or BI 221z/222z/223z)	
OR SOIL 455	Biology of Soil Ecosystems	4		W		(CSS 205 or (SOIL 205 and (SOIL 206 or FOR 206) and (BI 221z/222z/223z) or (BI 204/205/206) and (CH 122 or 202 or 227, or CH 232 and CH 228z and CH 262 or CH272)	Recommend MB 302 and CH 331

OR	SOIL 466	Soil Morphology and Classification	4	F			SOIL 205 or CSS 205	
SOCIAL AND ETHICAL CONSIDERATIONS (3-4 credits) CHOOSE ONE								
Course #		**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
FES/HORT 350		Urban Forestry	3		F,W		Foundational Horticulture or Forestry courses recommended.	
FOR 431		Economics and Policy of Forest Wildland Fire	4	S	S		AEC 250 or ECON 201z or FOR 330 with minimum C.	
NR 312		Critical Thinking for NR Challenges	3					Not currently scheduled.
PHL 440*		Environmental Ethics	3	S			Recommend PHL 205 and PHL 342 and PHL 365 or 6 credits of philosophy and sophomore standing.	
PHL/REL 443*		World Views and Environmental Values	3	F, W,S	U, F, W, S		One introductory-level science course.	Sophomore standing
SOC 480*		Environmental Sociology	4	F (hybrid)	U			Corv section: No Freshman/sophomore Ecampus Section: No Freshman
SOC 481*		Society and Natural Resources	4	S	U, F, W,S			No freshman.
SUS 331+*		Sustainability, Justice, and Engagement	3	W,S	F, W		Recommend completion of Difference, Power and Oppression course; collaboration, critical thinking and synthesis skills.	
ECOLOGICAL AND NATURAL RESOURCE ELECTIVES (3-5 credits) CHOOSE ONE								
Course #		**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
BI 351		Marine Ecology	3	W	F,W		BI 221z/222z/223z OR BI 204/205/206. A minimum grade of C- in all.	
BOT 220+*		Introduction to Plant Biology	4	F	U,W			
BOT 488		Environmental Physiology of Plants	3	W			Recommend one course in plant physiology or ecology	
ENSC 341		Tropical Ecology and Conservation	3	F	W		Required: BI 101/102/103 or BI 204/205/206 or BI 221z/22z2/223z. Recommend BI 370.	
FES 440		Wildland Fire Ecology	3	W	W,S	S	Recommended for Juniors or Seniors with coursework in Ecology and Natural Resource Management, analytical, critical thinking and reasoning skills.	.
OR	FOR 436	Wildland Fire Science and Management	4	F	F,W			
FES/FW 452		Biodiversity Conservation in Managed Forests	3	W	F,S		Recommend FES 240 or FES 341 or BI 370.	No freshman or sophomore.

FES 455	Urban Forest Planning and Management	4		F,W		FES 350 or HORT 350	
FOR 111+	Introduction to Forestry	3	F,S	U,W		CORE 100*, 300*, BA 100*, 300*, ED 100*, 300*, ENGR 110*, 310*, LA 100*, 300*, SCI 100* or 300*. * May be taken concurrently.	
FOR 441	Silviculture Principles	4	F	F		FES 240 **AND** FES 241 with C minimum in all.	
FW 251	Principles of Fish and Wildlife Conservation	3	W	U,F,W,S	F	Recommend one course in Introductory biology	Corvallis campus restricted to FW majors.
~~FW 320~~	~~Introductory Population Dynamics~~	4	W	U, F, W, S		(MTH 227, 241, 245, 251) and (BI 211/212/213) or (BI 221z/222z/223z) or (BI 204/205/206) . A minimum grade of C- is required in BI 221.	No freshman. Now restricted to Fish and Wildlife Conservation Science majors
FW 426	Coastal Ecology and Resource Management	5	F (HMSC)	F (Hybrid)			Departmental Approval required. No Freshman or Sophomore. HMSC = Hatfield Marine Science Center. All majors welcome.
FW 448	Herpetofauna Conservation and Management	3		F		BI 370 or FW 321.	
FW 451	Avian Conservation and Management	3	W	F, W		BI 370 or FW 321	
~~FW 454^~~	~~Fishery Biology~~	~~4~~	~~F~~	~~W~~	-	FW 315 and FW 320 required prerequisites. FW 320 is now restricted to FW majors.	
FW 456	Freshwater Ecology and Conservation	5	S	W, S		BI 370 or BI 371 required. Recommend 9 credits of upper division biological sciences.	
FW 458	Mammal Conservation and Management	4	S	F,S		BI 370 or FW 321.	
FW 473	Fish Ecology	4	W	S		BI 370 and FW 315	
FW 481	Wildlife Ecology	4		U, S	S	BI 370 or FW 321	
RNG 341	Rangeland Ecology and Management	3	F,W	F,W,S	W	BI 221z/222z/22z3 or BI 204/205/206. Coursework in soil science and ecology; analytical, critical thinking and synthesis skills.	
RNG 421	Rangeland Restoration and Management	4	S	F		BI 221/222/223 or BI 204/205/206 required. Recommend course work in soils and ecology.	
RNG 441	Vegetation Monitoring and Analysis	4		S		BI 221z/222z/223z or BI 204/205/206. Recommend coursework in ecology.	

SOIL 468	Soil Landscape Analysis	4		W		SOIL/CSS 466 (may be taken concurrently).	
Z 423	Environmental Physiology	3	F	F,S	F	(BI 204/205/206) or BI 221z/222z/223z) AND (CH 123 or CH 233 and CH 263) and (CH229z or CH 263) All with C- or better.	
Note: Up to 6 credits of appropriate internships, projects, or study abroad may be used to fulfill credit requirements in the "Social and Ethical Considerations" or "Ecological and NR Electives" as approved by petition.							
**=Baccalaureate Core / ^ =WIC (Writing Intensive Course) / + = Core Education (for students admitted Summer 2025 onward.)* *CORV= CORVALLIS CAMPUS, CASC= CASCADES CAMPUS, ECMP = ECAMPUS / FALL = F, WINTER = W, SPRING = S, SUMMER = U*							
IMPORTANT Advising Notes: Students pursuing the Ecological Restoration Option MUST take a "Biology for Science majors" series. (BI 221z/22z2/231z or BI 204/205/206 or an equivalent series that transfer as BI LD2)							
Option code: 663 **Total Credits** = 37							

Environmental Disaster Management

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisite	Restrictions/Advising Notes
MEASUREMENT AND ANALYSIS (4 credits) CHOOSE ONE							
GEOG 360	Geoscience I: Geographic Systems and Theory	4	F,W,S	U,F, W,S	W		
OR GEOG 361	Quantitative Geospatial Analysis and Modeling	4	W	W		GEOG 360 and (MTH 112z, 241z, 251z) and ST 351. Min grade of C- in all	
COMMUNICATION AND LEADERSHIP (6 credits) REQUIRED							
AG 455*	Risk and Crisis Communications in Ag Sci and NR	3		W			
LEAD 342*	Team and Organizational Leadership	3	W,S	W,S			
OR COMM 324	Communication in Organizations	3	F				No freshman
OR BA 251	Managing Organization	4	S	U,F,W,S			No Freshman.
FOUNDATIONS OF ENVIRONMENTAL DISASTER MANAGEMENT (17 credits) REQUIRED							
ENSC 210+*	Environmental Earth Science	4		F	F		Was GEO 221
FES/FW 445	Ecological Restoration	4	F,S	U,F,W,S	S	BI 370 recommended	
GEOG 350+*	Geography of Natural Hazards	3	F,S	W			
H 344*	Foundations of Environmental Health	3	F,W,S	U,F,W,S			
OR H 388*	Global Environmental Health	3	S,W	F			
H 489	Emergency and Disaster Management	3		S			Required in the minor in Env and Occupational Health Offered each year but alternates between Ecampus and Corvallis
ELECTIVES (CHOOSE A MINIMUM OF 10 CREDITS)							
AEC 432	Environmental Law	4					Not currently scheduled.
ATS 341*+	Snow, Smoke and Storms: Climate Change Impacts in the PNW	3	W				No Freshman or Sophomore.
BI 351	Marine Ecology	3	W	F,W		BI 221/222/223 or BI 221z/222z/223z OR BI 204/205/206. A minimum grade of C- in all.	
BI 370	General Ecology	3	F,W,S	U, F,W,S	W	BI 221/222/223 or BI 221z/222z/,223z or BI 204/ 205/ 206. All with C- minimum grade)	
CH 122*	General Chemistry II	5	W,S	U,F,W,S	W	CH121 or CH 201 or CH 221z [was CH 231] with min of C-	
CH 123*	General Chemistry III	5	S	U,F,W,S	S	CH 122 or CH 222z &CH 228z [was CH 232 and 262] or (CH 202 and 205). Min C- in all.	

CH 331	Organic Chemistry		F,W	U,F,W	F	CH 123, 223z, or 226H or (CH 233 and CH 263 or 273) with Min of C-	
FE 434	Forest Watershed Management	4	F			(CH 121, 201, or 231) and (SOIL 205 or CSS 205) and (MTH 241 or MTH 251) with C minimum in all	
FE 436	Forest Disturbance Hydrology	3	W			FE 434 with minimum C	
FES 341	Forest Ecology	3	F, W	F, W, S	F	FES 240 or (BI 221z/222z/223z) or (BI 204/205/206) or BI 370	Students who take the BI 1XX series MUST take FES 240 Forest Biology for the Forestry requirement in order to take FES 341Forest Ecology. BI 2XX series is the preferred biology for the NR major.
FES 440	Wildland Fire Ecology	3	W	W,S	S	Recommend Junior or Senior standing with coursework in ecology and natural resource management; analytical, critical thinking, and reasoning skills	
FW 326	Integrated Watershed Management	3		U,F,W, S	W	FW 251 recommended	No Freshman.
FW 418	Urban Ecology	3		U,F,W		BI 370 or FW 321	
FW 426	Coastal Ecology and Resource Management	5	F (HMSC)	F (Hybrid)			Departmental Approval required. No Freshman or Sophomore. HMSC = Hatfield Marine Science Center. All majors welcome.
FW/OC 434	Estuarine Ecology	4		W		BI 221z/222z/223z or BI 204/205/206. Minimum C- in all	Field Trip and fee not required for Ecampus Students.
FW 456	Freshwater Ecology and Conservation	5	S	W,S		BI 370 or BI 371 required. Recommend 9 credits of upper division biological sciences.	
FW 479	Wetland and Riparian Ecology	3	U,F,W,S			BI 370 or FW 321	
FW 481	Wildlife Ecology			U, S	S	BI 370 or FW 321	
FOR 252	Wildland Fire Guard School	2	S			Blended learning.	Incorporates FEMA curriculum
FOR 436	Wildland Fire Science and Management	4	F	F,W			
FOR 452	Prescribed Fire Practicum	3	F			FOR 252 required or concurrently	
GEO 332*	Global Warming: Science, Impacts and Solutions	3	W				
GEO 305+*	Society and Volcanoes	3	S	F			Was "Living with Active Cascade Volcanoes"
OR GEO 380*	Earthquakes in the Pacific Northwest	3	W,S	F			
GEOG 331+*	Population, Consumption and Environment	3		S			
GEOG 361	Quantitative Geospatial Analysis and Modeling	4	W	W		GEOG 360 and (MTH 112z, 241z, 251z) and ST 351. Min grade of C- in all	

GEOG 441	The World's Water	3					Not currently scheduled.
GEOG 451	Planning Principles and Practices for Resilient Communities	4	F	W		CE202, FE 257 or GEOG 260 with min C-	
GEOG/H 332*	Climate and Health	3					Not currently scheduled.
OC 333*	Oceans, Coasts and People	3	F,S	U,W		Recommend OC 201	Will become OC 203, Not Scheduled yet as OC 203
O R OC 203+	Oceans, Coasts and People	3				Offered in alternate term than OC 333	CORE ED Social Science if taken as OC 203
TOX 430	Chemical Behavior in the Environment	3	F			CH 123 or 331	
TOX 455	Ecotoxicology: Aquatic Ecosystems	3	W			CH 331	
TOX 490	Environmental Forensic Chemistry	3	W			Recommend one year of college chemistry and one term of organic chemistry.	
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.							
**=Baccalaureate Core / ^ =WIC (Writing Intensive Course) / + = Core Education (for students admitted Summer 2025 onward.* *CORV= CORVALLIS CAMPUS, CASC= CASCADES CAMPUS, ECMP = ECAMPUS / FALL = F, WINTER = W, SPRING = S, SUMMER = U*							
Option Code: A025 **Total Credits** = 37 – 39							

Fish and Wildlife Conservation

MEASUREMENT AND ANALYSIS (3-4 credits) CHOOSE ONE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisite**	**Restrictions/Advising Notes**
BI 375	Field Methods in Ecological Restoration	4			U	Full year of biology required: (BI 211 /212/213) or (BI 204/205/206) or (BI 221z/222z/223z) all with C- minimum grade.	Taught in Bend in a condensed summer term. This is a field-based course with multiple nights camping. Students responsible for some aspects of personal food costs, camping gear, and weekend lodging (OSU-Cascades Residence Hall is available). CORV and DSC students will need an override to register, and all students will need to apply. Only 10 students are accepted. Talk to your advisor about the application process.
FW 255	Field Sampling of Fish and Wildlife	3	F, S	U,F, W,S	S	Recommend WR 121 and familiarity with personal computers recommended.	Corvallis section restricted to F&W majors. Ecampus restricted to online students until week 10
GEOG 201+*	Foundations of Geospatial Science and GIS	4	F,W,S	U,F,W,S			
GEOG 360	Geoscience I: Geographic Information Systems and Theory	4	F,W,S	U,F, W,S	W		
GEOG 361	Quantitative Geospatial Analysis and Modeling	4	W	W		GEOG 360 and (MTH 112z, 241z, 251z) and ST 351. Min grade of C- in all	
NR 325	Scientific Methods for Analyzing Natural Resource Problems	3		F		MTH111z (C- or better) or score of 60 in ALEKS Math Placement test.	
RNG 441	Vegetation Monitoring and Analysis	4		S		BI 221z/222z/223z or BI 204/205/206. Recommend coursework in ecology.	

FOUNDATIONS OF FISH AND WILDLIFE CONSERVATION (12-14 credits) REQUIRED								
Course #		**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/ Advising Notes**
BI 370		General Ecology	3	F,W,S	U, F,W,S	W	BI 221/222/223 or BI 221z/222z/223z OR BI 204/205/206. A minimum grade of C- in all.	
O R	~~FW 321~~	~~Applied Community and Ecosystem Ecology~~	3	F,S	U, F, W, S		(BI 211/212/213) or (BI 221z/222z /223z) or (BI 204/205/206) . A minimum grade of C- is required in BI 221z & Bi 204. Min D- in remaining.	Now restricted to Fish and Wildlife Conservation Science majors.
FES 440		Wildland Fire Ecology	3	W	W,S	S	Recommended for Juniors or Seniors with coursework in Ecology and Natural Resource Management, analytical, critical thinking and reasoning skills.	
O R	FOR 346	Topics in Wildland Fire	3	S	W,S		Recommend coursework in forest biology or ecology such as FES 240 or FES 341	
O R	FOR 436	Wildland Fire Science and Management	4	F	F,W			
FES/FW 452		Biodiversity Conservation in Managed Forests	3	W	F,S		Recommend FES 240 or FES 341 or BI 370.	No freshman or sophomore.

OR	FW 370	Conservation Genetics	4	W	U,F, W, S	W	BI 221z/222z/223z or BI 204/205/206 required. C- min in BI 221z and BI 204.	No freshman.
FW 251		Principles of Fish and Wildlife Conservation	3	W	U,F,W,S	F	Recommend one course in Introductory biology	Corvallis campus restricted to FW majors.
FISH AND WILDLIFE BIOLOGY (9-12 credits) CHOOSE THREE								
Course #		**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
FW 302		Biology and Conservation of Marine Mammals	4	U (HMSC)	F,W,S		BI 221z/222z/223z or BI 204/205/206. Minimum C- in all.	
FW 311		Ornithology	3	F,S	U, F,S	S	BI 221z/222z/223z or BI 204/205/206 required. C- min in BI 221z and BI 204.	No Freshman.
FW 315		Ichthyology	3		U, F, W,S		BI 221z/222z/223z or BI 204/205/206 required. C- min in BI 221z and BI 204.	No Freshman.
FW 317		Mammalogy	3	W	U, F, W,S		BI 221z /222z/ 223z or BI 204/205/206, Min of C- in BI 221z and BI 204.	No Freshman. Section 401 will be restricted to F&W majors . Section 400 open to Natural Resources.
~~FW 320~~		~~Introductory Population Dynamics~~	4	W	U, F, W, S		(MTH 227, 241, 245, 251) and (BI 211/212/213) or (BI 221/222/223) or (BI 204/205/206) . A minimum grade of C- is required in BI 221.	No freshman. Now restricted to Fish and Wildlife Conservation Science majors
~~FW 321~~		~~Applied Community and Ecosystem Ecology~~	3	F,S	U, F, W, S		(BI 211/212/213) or (BI 221z/222z /223z) or (BI 204/205/206) . A minimum grade of C- is required in BI 221z & Bi 204. Min D- in remaining.	Now restricted to Fish and Wildlife Conservation Science majors.
FW 331		Ecology of Marine and Estuarine Birds	4		S		One year of introductory biology recommended.	No freshman or sophomore.
FW 473		Fish Ecology	4	W	S		BI 370 and FW 315	
FW 481		Wildlife Ecology	4		U, S	S	BI 370 or FW 321	
Z 423		Environmental Physiology	3	F	F,S	F	(BI 204/205/206) or BI 221z/222z/223z) AND (CH 123 or CH 233 and CH 263) and (CH229z or CH 263) All with C- or better.	
Z 473		Herpetology	4		F,S		BI 204/205/206 or BI 221z/222z/223z) with minimum grade of C-.	
HABITAT MANAGEMENT (6-9 credits) CHOOSE TWO								
Course #		**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
FES/FW 445		Ecological Restoration	4	F,S	U,F, W, S	S	Recommend BI 370	
FW 326		Integrated Watershed Management	3		U,F,W,S	W	FW 251 recommended	No Freshman.
FW 426		Coastal Ecology and Resource Management	5	F (HMSC)	F (Hybrid)			Departmental Approval required. No Freshman or Sophomore. HMSC = Hatfield Marine Science Center. All majors welcome.
FW/OC 434		Estuarine Ecology	4		W		BI 221z/222z/223z or BI 204/205/206. Minimum C- in all	Field Trip and fee not required for Ecampus Students.

FW 456	Freshwater Ecology and Conservation	5	S	W, S		BI 370 or BI 371 required. Recommend 9 credits of upper division biological sciences.	
FW 479	Wetlands and Riparian Ecology	3		U,F,W,S		BI 370 or FW 321.	
RNG 341	Rangeland Ecology and Management	3		F,W,S	W	BI 221z/222z/22z3 or BI 204/205/206. Coursework in soil science and ecology; analytical, critical thinking and synthesis skills.	
RNG 455	Riparian Ecohydrology and Management	4	S	W	F		
SOIL 366	Ecosystems of Wildland Soils	3	F			SOIL 205 or CSS 205	
OR SOIL 388	Soil Systems and Plant Growth	4		F		SOIL 205 (and SOIL /FOR 206) or CSS 205 and (CH 121 or CH 221z) and BOT 220 or (BI 204/205205) or (BI 211/212/213) or BI 221z/222z/223z)	
OR SOIL 466	Soil Morphology and Classification	4	F			SOIL 205 or CSS 205	
Natural Resource Policy/ FISH AND WILDLIFE POLICY AND LAW (3 credits) CHOOSE ONE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
FES 486^	Public Lands Policy and Management	3	F, S	U, F,W,S	W		Sophomore standing recommended.
FW 350+*	Endangered Species, Society and Sustainability	3		U,F, W	W	Recommend FW 251.	No Freshman or Sophomore.
FW 415	Fish and Wildlife Law and Policy	3		F,W		Recommend PS 201 or other political science intro course.	
ELECTIVES (3-4 credits) CHOOSE ONE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
BOT 220+*	Introduction to Plant Biology	4	F	U,W			
BOT 321	Plant Systematics	4	S	U,F		Recommend BI 223.	Fall Ecampus section restricted to BOT
BOT 324*	Fungi in Society	3	W,S	U,F,W		One course in biological science.	
BOT 341	Plant Ecology	4	S	F,W,S		Recommend BOT 321 and BI 223	Fall Ecampus section restricted to BOT .
BOT 461	Mycology	4	F	F,S		BI 221z/222z/223z or BI 204/205/206 . Minimum grade of C- in all.	Fall Ecampus section restricted to BOT majors.
ENSC 321^	Environmental Case Studies	3	F,W,S	U,F,W,S	W	Recommend WR 121 and one year of college bio; critical thinkings, problem solving and writing skills	
FW 323	Management Principles of Pacific Salmon in Northwest	3		U,F,W,S	S		
FW 366	Environmental Contaminants in F&W	3		W		(BI 204/205/206) or (BI 221z/222z/223z)	Not currently scheduled.
FW 371	Environmental Physiology of Fishes	4	S			Recommend FW 315 or one year of introductory biology, critical thinkings, problem solving and synthesis skills	No Freshman.
FW 419	The Natural History of Whales and Whaling	3		W			BI 370 or FW 321
FW 421	Aquatic Biological Invasions	4		W, W (INTL)		BI 221z/222z/223z or BI 204/205/206 required. C- min in BI 221z and BI 204.	Taught online in winter and also as part of OSU GO Intl Study in Patagonia, Chile.

FW 427	Principles of Wildlife Diseases	4		F,W,S		BI 221z/222z/223z or BI 204/205/206. Min of C- in BI 221 and BI 204.	No Freshman or Sophomore.
FW 451	Avian Conservation and Management	3	W	F, W		BI 370 or FW 321	
~~FW 454^~~	~~Fishery Biology~~	~~4~~	~~F~~	~~W~~	-	FW 315 and FW 320 required prerequisites. FW 320 is now restricted to FW majors.	
FW 448	Herpetofauna Conservation and Management	3		F		BI 370 or FW 321.	
FW 462	Ecosystems Services	3		W,S		BI 370 or equivalent recommended.	
FW 467	Antarctic Science	4					Not currently scheduled.
FW 469	Methods in Physiology and Behavior of Marine Megafauna	3		F (Hybrid, HMSC)		BI 221z/222z/223z OR BI 204/205/206 required. Recommend FW 302, FW 320, FW 331 and FW 475. Minimum C- in all. Dept Approval required. Contact fw.advising@oregonstate.edu.	Hybrid section includes face-to-face meetings. Mandatory in-person attendance at HMSC in week prior to start of fall term. Remainder of coursework to be completed online. All majors welcome. Contact Instructor if issues co-registering for FW 426/526.
FW 474	Early Life History Fishes	4				FW 315 recommended.	Offered alternate years. Not currently scheduled.
FW 475	Wildlife Behavior	4		F, W, S		BI 370 or FW 321	
FW 476	Fish Physiology	4				FW 315	Not currently scheduled.
FW 497^	Aquaculture	3				Recommended 9 credits of upper division biology.	Not currently scheduled.
FW 498	Aquaculture Laboratory	3				Recommended 9 credits of upper division biology.	Taught at Hatfield Marine Science Center with online component. Not currently scheduled.
NR 325	Scientific Methods for Analyzing Natural Resource Problems	3		F		MTH111, 111z (C- or better) or score of 60 in ALEKS Math Placement test.	
OC 340	Biological Oceanography	4	S			OC 201 and BI 221 with minimum C-.	Required field trip aboard ocean going vessel.
RNG 457	Habitat Analysis I: Habitat Use and Movement	3		F		FW 251, RNG 341 and MTH 241 and (ST243z [was ST 201] or ST 351)	NR students who have not had MTH 241 can contact the instructor for an override of the MTH prerequisite. MTH 245 would be allowed.
Z 350	Animal Behavior	3	W,S	F,S		(BI 204, BI 205, and BI 206) or (BI 221z,222z, and 223z) A minimum grade of C- is required in all	
Z 365	Biology of Insects	4		S		(BI 211/212/213) or (BI 204/205/206) or (BI 221z/222z/22z3) with C- or better	
Z 477	Aquatic Entomology	4			F	(BI 204/ 205/206) or (BI221z/222z/223z) with C- or better,	Two required Saturday field trips. Exact dates depend on weather. Lecture and Lab. Offered in alternate years.
Note: Up to 6 credits of appropriate internships, projects or study abroad may be used to fulfill credit requirements as approved by petition.							
**=Baccalaureate Core / ^ =WIC (Writing Intensive Course) / + = Core Education (for students admitted SU 25 onward.* *CORV= CORVALLIS CAMPUS, CASC= CASCADES CAMPUS, ECMP = ECAMPUS / FALL = F, WINTER = W, SPRING = S, SUMMER = U*							
IMPORTANT Advising Notes: Students pursuing the Fish & Wildlife Conservation Option MUST take a "Biology for Science majors" series. (BI 211212/213 or BI 204/205/206 or BI 221z/222z/223z or an equivalent series that transfer as BI LD2).							
Option Code: 672 **Total Credits** = 37							

Forest Ecosystems

MEASUREMENT AND ANALYSIS (4-5 credits) CHOOSE ONE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/ Advising Notes**
BI 375	Field Methods in Ecological Restoration	4			U	Full year of biology required: (BI 211 /212/213) or (BI 204/205/206) or (BI 221z/222z/223z) all with C- minimum grade.	Taught in Bend in a condensed summer term. This is a field-based course with multiple nights camping. Students responsible for some aspects of personal food costs, camping gear, and weekend lodging (OSU-Cascades Residence Hall is available). CORV and DSC students will need an override to register, and all students will need to apply. Only 10 students are accepted. Talk to your advisor about the application process.
BOT 440	Field Methods in Plant Ecology	4		U,S		Recommend an ecology course and statistics.	
CROP/ HORT 414	Precision Agriculture	4	S	S		Access to a computer with a valid Windows or Mac operating system is required for this course. Google Chromebooks will not be compatible with the required software.	
FE 208	Forest Surveying	4	F,W	S		MTH 112 or MTH 241 or MTH 245 or MTH 251 or MTH 252 with C or better.	
FE 257	GIS and Forest Engineering Applications	3	W	F			
FOR 321	Forest Mensuration	5	F			FES 241 and FE 208 and (MTH 241, 245, 251 or 251H) and (ST243z [was ST 201], 314, 314H, 351 or 351H) with minimum grade of C required in all	
GEOG 201+*	Foundations of Geospatial Science and GIS	4	F,W,S	U,F,W,S			
GEOG 360	Geoscience I: Geographic Information Systems and Theory	4	F,W,S	U,F, W,S	W		
GEOG 361	Quantitative Geospatial Analysis and Modeling	4	W	W		GEOG 360 and (MTH 112z, 241z, 251z) and ST 351. Min grade of C- in all	
ECOLOGICAL FOUNDATIONS (21 credits) REQUIRED							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
FES 240+*	Forest Biology	4	F,S	U,F,S			
FES 341	Forest Ecology	3	F, W	F, W, S	F	FES 240 or (BI 221z/222z/223z) or (BI 204/205/206) or BI 370	Students who take the BI 1XX series MUST take FES 240 Forest Biology for the Forestry requirement in order to take FES 341Forest Ecology. BI 2XX series is the preferred biology for the NR major.
FES 440	Wildland Fire Ecology	3	W	W,S	S	Recommended for Juniors or Seniors with coursework in Ecology and Natural Resource Management, analytical, critical thinking and reasoning skills.	

FES/FW 452	Biodiversity Conservation in Managed Forests	3	W	F,S		Recommend FES 240 or FES 341 or BI 370.	No freshman or sophomore.
FOR 441	Silviculture Principles	4	F	F		FES 240 and FES 241 with C minimum in all.	Recommend FES 241 for Plant Science
FOR 436	Wildland Fire Science and Management	4	F	F,W			
ECOLOGY BREADTH (6-8 credits) CHOOSE TWO							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
BOT 321	Plant Systematics	4	S	U,F		Recommend BI 223.	Fall Ecampus section restricted to BOT majors
OR BOT 341	Plant Ecology	4	S	F,W,S		Recommend BOT 321 and BI 223	Fall Ecampus section restricted to BOT majors.
BOT 425	Flora of the Pacific Northwest	3	S			Recommend BOT 321.	
ENSC 341	Tropical Ecology and Conservation	3	F	W		Required: BI 101/102/103 or BI 204/205/206 or BI 221z/222z/223z. Recommend BI 370.	
FE 434	Forest Watershed Management	4	F			(CH 121 or CH201 or CH231) and (SOIL 205 or CSS 305 or CSS 205) and (MTH 241 or MTH 251). All with C minimum grade.	
FES 412	Forest Entomology	3	S			BI 204 or BI 211 or BI 212 or BI 221 with C or higher and/or equivalent.	
BOT/FOR 413	Forest Pathology	3	W			BI 204, BI 221z, BI 221, BI 213 or FES 240 with a minimum of C.	
FES/FW 445	Ecological Restoration	4	F,S	U,F, W, S	S	Recommend BI 370	
FW 251	Principles of Fish and Wildlife Conservation	3	W	U,F,W,S	F	Recommend one course in Introductory biology	Corvallis campus restricted to FW majors .
FW 311	Ornithology	3	F,S	U, F, S	S	BI 221z/222z/223z or BI 204/205/206 required. C- min in BI 221z and BI 204.	No Freshman.
FW 315	Ichthyology	3		U, F, W,S		BI 221z/222z/223z or BI 204/205/206 required. C- min in BI 221z and BI 204.	No Freshman.
FW 317	Mammalogy	3	W	U, F, W,S		BI 221z/222z/223z or BI 204/205/206, Min of C- in BI 221z and BI 204.	No Freshman. Section 401 will be restricted to F&W majors . Section 400 open to Natural Resources.
~~FW 320~~	~~Introductory Population Dynamics~~	4	W	U, F, W, S		(MTH 227, 241, 245, 251) and (BI 211/212/213) or (BI 221z/222z/223z) or (BI 204/205/206) . A minimum grade of C- is required in BI 221.	No freshman. Now restricted to Fish and Wildlife Conservation Science majors
~~FW 321~~	~~Applied Community and Ecosystem Ecology~~	3	F,S	U, F, W, S		(BI 211/212/213) or (BI 221z/222z /223z) or (BI 204/205/206) . A minimum grade of C- is required in BI 221z & BI 204. Min D- in remaining.	Now restricted to Fish and Wildlife Conservation Science majors.
FW 448	Herpetofauna Conservation and Management	3		F		BI 370 or FW 321.	
FW 451	Avian Conservation and Management	3	W	F, W		BI 370 or FW 321	
FW 456	Freshwater Ecology and Conservation	5	S	W, S		BI 370 or BI 371 required. Recommend 9 credits of upper division biological sciences.	
FW 458	Mammal Conservation and Management	4	S	F,S		BI 370 or FW 321.	
FW 473	Fish Ecology	4	W	S		BI 370 and FW 315	
FW 481	Wildlife Ecology	4		U, S	S	BI 370 or FW 321	

NR 325	Scientific Methods for Analyzing Natural Resource Problems	3		F		MTH111, 111z (C- or better) or score of 60 in ALEKS Math Placement test.	
RNG 351	Ecology of Grassland Ecosystems	3		F,S		Recommend RNG 341	
RNG 352	Ecology of Shrubland Ecosystems	3		F		Recommend RNG 341	
RNG 455	Riparian Ecohydrology and Management	4	S	W	F		
RNG 491^	Rangeland Management and Planning	4		F		RNG 341	
SOIL 366	Ecosystems of Wildland Soils	3	F			SOIL 205 or CSS 205	
OR SOIL 388	Soil Systems and Plant Growth	4		F		SOIL 205 (and SOIL /FOR 206) or CSS 205 and (CH 121 or CH 221z) and BOT 220 or (BI 204/205205) or (BI 211/212/213) or BI 221z/222z/223z)	
OR SOIL 466	Soil Morphology and Classification	4	F			SOIL 205 or CSS 205	
Z 473	Herpetology	4		F,S		BI 204/205/206 or BI 221z/222z/223z) with minimum grade of C-.	

TECHNICAL ELECTIVES (6-8 credits) CHOOSE TWO

Course #	Course Name	Credits	CORV	ECMP	CASC	Prerequisites	Restrictions/Advising Notes
FE 102	Forest Engineering Problem Solving & Technology	3	W,S				
FE 208	Forest Surveying	4	F,W	S		MTH 112 or MTH 241 or MTH 245 or MTH 251 or MTH 252 with C or better.	
FE 257	GIS and Forest Engineering Applications	3	W	F			
FE 370	Harvesting Operations	4	F			PH 201 or PH 211 with C or better.	
FE 444	Remote Sensing and Photogrammetry	4	F			FE 257 and (MTH 112z [was MTH 112] , 241, 251, 251H, 252 or 252H) and (PH 201 or 211). A minimum grade of C.	
FES/HORT 447	Arboriculture	4				Recommend (FES 241 or HORT 226 or HORT 228) and (FOR 111 or HORT 112)	Not currently scheduled.
FOR 112	Computing Applications in Forestry	3	W,S	S			
GEOG 201+*	Foundations of Geospatial Science and GIS	4	F,W,S	U,F,W,S			
GEOG 360	Geoscience I: Geographic Information Systems and Theory	4	F,W,S	U,F, W,S	W		
PH 201+*	General Physics	5	U,F	F	F	MTH 112z or MTH 251 or score of 75 on ALEKS. Min C- in all.	
ST 351	Intro to Statistical Methods	4	F,W,S	U,F,W,S	F	High School Algebra with Statistics.	
OR ST 352	Introduction to Statistical Methods	4	F,W,S	U,F,W,S	W	ST 351 or ST 351H	

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.

*=Baccalaureate Core / ^ =WIC (Writing Intensive Course) / + = Core Education (for students admitted SU 25 onward. CORV= CORVALLIS CAMPUS, CASC= CASCADES CAMPUS, ECMP = ECAMPUS / FALL = F, WINTER = W, SPRING = S, SUMMER = U
IMPORTANT Advising Notes: Students pursuing the Forest Ecosystems Option should take a "Biology for Science majors" series in order to have the greatest amount of choices. (BI 211212/213 or BI 204/205/206 or BI 221z/222z/223z or an equivalent series that transfer as BI LD2). In the NR major requirements, the student should take FES 240 Forest Biology for the "Terrestrial Ecosystems" requirements and FES 241 Dendrology for "Plant Science".
Option Code: 673 **Total Credits** = 37

Human Dimensions

MEASUREMENT AND ANALYSIS (4 credits) CHOOSE ONE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/ Advising Notes**
FES 422	Research Methods in Social Science	4	W	S	S	ST 243z [was ST 201] or ST 351	
CONSENSUS AND COMMUNICATION (3 credits) CHOOSE ONE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
COMM 322+	Small Group Communication	3			W	Recommend COMM 218z [was COMM 218].	
COMM 226+	Intercultural Communication	3	W	F			Formerly COMM 326
COMM 324	Communication in Organizations	3	F				No Freshman.
COMM 440	Theories of Conflict and Conflict Management	3				Recommend COMM 321	Not currently scheduled
COMM 442	Bargaining and Negotiation Processes	3				Recommend COMM 321	Not currently scheduled
LEAD 342*	Team and Organizational Leadership	3	W,S	W,S			
LEAD 443	Leadership through Conversations	3	F	S			
PHILOSOPHY AND ETHICS OF THE ENVIRONMENT (6 CREDITS) CHOOSE TWO							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
ES/PHL/REL 448	Native American Philosophies	4		W			
NR 312	Critical Thinking for NR Challenges	3					Not currently scheduled.
NR 380	Nature in Literature over the Centuries	3					Not currently scheduled.
PHL 440*	Environmental Ethics	3	S			Recommend PHL 205 and PHL 342 and PHL 365 or 6 credits of philosophy and sophomore standing.	
PHL/REL 443*	World Views and Environmental Values	3	F, W,S	U,F,W,S		One introductory-level science course.	Sophomore standing
PHL 470	Philosophy of Science	3				Recommend 6 credits of upper-division philosophy and sophomore standing.	Not offered every year. Not currently scheduled.
SOC 381	Social Dimensions of Sustainability	4	W	W,S			
SUS 331+*	Sustainability, Justice, and Engagement	3	W,S	F, W		Recommend completion of Difference, Power and Oppression course; collaboration, critical thinking and synthesis skills.	
ENVIRONMENTAL POLICY AND LAW (3-4 credits) CHOOSE ONE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
AEC 253*	Environmental Law, Policy and Economics	4	W,S	U, F,W, S			
AEC 432	Environmental Law	4					Not currently scheduled
ANTH 472	Contemporary Native Issues	4	F	F,S		3 credits of social science	

ES 444	Native American Law: Tribes, Treaties and the US	4		S			
PS 475	Environmental Politics and Policy	4	F	U,F,W,S	S (hybrid)		
PS 477	International Environmental Politics and Policy	4		F			
RESOURCE ECONOMICS (3-4 credits) CHOOSE ONE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
AEC 351*	Natural Resources Economics & Policy	3	W	F, S		AEC 250 or ECON 201z. MTH111z is recommended.	
AEC/ECON 352*	Environmental Economics and Policy	3	F,S	U,F,W,S	W	AEC 250 or ECON 201z.	
AEC 353*	Introduction to Coastal and Marine Resource Economics	3				MTH 111 and AEC 250 or ECON 201z. All with C- or above.	Not currently scheduled.
ECON 466	Economics of Traditional and Renewable Energy	4	W			ECON 201z	This course requires online proctored testing, which may include testing fees and the use of security measures, such as a scan of your testing environment. Please carefully review online proctor test information at: beav.es/proctoring
TRAL 432	Economics of Recreation and Tourism	3	S	S		Recommend AEC 250 or ECON 201z and ST 202 or 202H	
CONSERVATION AND MANAGEMENT (9-11 credits) CHOOSE THREE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
BA 251	Managing Organization	4	S	U,F,W,S			No Freshman.
FES 365*	Issues in Natural Resource Conservation	3		U,W	W		
FES/HORT 455	Urban Forest Planning, Policy and Management	4		F,W		FES 350 or HORT 350 with minimum grade of C-	
FES 486^	Public Lands Policy and Management	3	F, S	U, F,W,S	W		Sophomore standing recommended.
FW 251	Principles of Fish and Wildlife Conservation	3	W	U,F,W,S	F	Recommend one course in Introductory biology	Corvallis campus is restricted to FW majors.
FW 326	Integrated Watershed Management	3		U,F,W S	W	FW 251 recommended	No Freshman.
FW 350+*	Endangered Species, Society and Sustainability	3		U,F, W	W	Recommend FW 251.	No Freshman or Sophomore.
FW 462	Ecosystems Services	3		W,S		BI 370 or equivalent recommended.	
GEOG 250+*	Land Use Planning for Sustainable Communities	3	F,S	W			
GEOG 430	Resilience-Based Natural Resource Management	3		S			
GEOG 451	Planning Principles and Practices for Resilient Communities	4	F	W		CE202, FE 257 or GEOG 260 with min C-	
GEOG /ENSC 452	Environmental Assessment	3	S				
NMC 311	Intro to Non-Profit Management	3					Not currently scheduled.

SUS 350+*	Sustainable Communities	3	W,S	U,F,W,S	F		
SUS 450	Sustainable Organizations	3	W	F			
TRAL 351	Outdoor Recreation on Public Lands	4	W	F,S		TRAL 251 with minimum of C-	
TRAL 354	Communities, Natural Areas, and Tourism	3	W	F			
HUMANS, SOCIETY AND THE ENVIRONMENT (9-12 credits) CHOOSE THREE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
AEC 122+*	Introduction to Climate Change Economics and Policy	3	F	U,F			
ANTH 101+*	Introduction to Anthropology	3	F,W,S	U,F,W,S			
ANTH 210+*	Introduction to Cultural Anthropology	3	F,W,S	U,F,W,S			
ANTH 477	Ecological Anthropology	4		U,F,S		Recommend 3 credits social science and Jr/Sr standing	
ANTH 481*	Natural Resources and Community Values	3	F(honors),W	U, F,W,S		Recommend 3 credits of social science	
GEO 332*	Global Warming: Science, Impacts and Solutions	3	W				
GEOG 300+*	Sustainability for the Common Good	3	F, W,S	U,F,W,S			No Freshman or Sophomore.
GEOG 331+*	Population, Consumption and Environment	3		S			
HST 481*	Environmental History of the United States	4	W	U, F, S		HST 201, 202, 203 recommended	No Freshman or Sophomore.
OC 333*	Oceans, Coasts and People	3	F,S	U,W		Recommend OC 201	Will become OC 203. Not yet scheduled as OC 203.
OR OC 203+	Oceans, Coasts and People	3				Offered in alternate term than OC 333	CORE ED Social Science if taken as OC 203
PPOL 441/ SOC 482*	Energy, Climate and Society	4		W			
PS 374*	Sustainable Living: Practices and Policies	4		S			
PSY 201z+*	General Psychology	4	F,W,S	U,F,W,S	W		
PSY 202z+*	General Psychology	4	F,W,S	U,F,WS	F,S		
PSY 360	Social Psychology	4	F,W	U,F,W,S	W	PSY 201 or 201z and PSY 202 or 202z. With minimum C- in both	
PSY 492	Conservation Psychology	4				(PSY 201, 201H, 201Z or 201HZ) and (PSY 202, 202H, 202Z or 202HZ). A minimum grade of C- is required in PSY 201, PSY 201H, PSY 201Z, PSY 201HZ, PSY 202, PSY 202H, PSY 202Z and PSY 202HZ.	No Freshman or Sophomore. Not currently scheduled.
SOC 204z+*	Introduction to Sociology	3	F,W,S	U,F,W,S	W		
SOC 280+	Introduction to Environment and Society	3	S	W			

SOC 381	Social Dimensions of Sustainability	4	W	W,S			
SOC 480*	Environmental Sociology	4	F (hybrid)	U			Corv section: No Freshman or Sophomore Ecampus Section: No Freshman
SOC 481*	Society and Natural Resources	4	S	U, F, W,S			No freshman.
SUS 350+*	Sustainable Communities	4	W,S	U,F,W,S	F		No Freshman or Sophomore.
SUS 420	Social Dimensions of Sustainability	3		W			
WGSS 440*	Women and Natural Resources	3		U,W,S			
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.							
**=Baccalaureate Core / ^ =WIC (Writing Intensive Course) / + = Core Education (for students admitted SU 25 onward.* *CORV= CORVALLIS CAMPUS, CASC= CASCADES CAMPUS, ECMP = ECAMPUS / FALL = F, WINTER = W, SPRING = S, SUMMER = U*							
Option Code: 675 **Total Credits** = 37							

Landscape Analysis

MEASUREMENT AND ANALYSIS (4 credits) CHOOSE ONE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/ Advising Notes**
FE 208	Forest Surveying	4	F,W	S		MTH 112z or MTH 241 or MTH 245 or MTH 251 or MTH 252 with C or better.	
FOUNDATIONS OF GEOGRAPHIC INFORMATION SCIENCE (15 - 16 credits) REQUIRED							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
GEOG 201+*	Foundations of Geospatial Science and GIS	4	F,W,S	U,F,W,S			
GEOG 360	Geoscience I: Geographic Information Systems and Theory	4	F,W,S	U,F, W,S	W		
OR FE 257	GIS and Forest Engineering Applications	3	W	F			
GEOG 370	Cartography	4	W	U,F		GEOG 201 or GEOG 360 or FE 257 or CE202 with minimum grade of C-	
GEOG 380	Remote Sensing: Principles and Applications	4	F	U, W		GEOG 201or GEOG 360 or FE 257 or CE 202 with minimum grade of C-	
OR FE 444	Remote Sensing and Photogrammetry	4	F			Prerequisites: FE 257 and (MTH 112z [was MTH 112] , MTH 241, MTH 251, MTH 252) and (PH 201 or 211). A minimum grade of C.	
GEOGRAPHIC INFORMATION SCIENCE ELECTIVES (7-8 credits) CHOOSE TWO to THREE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
CE 413	GIS In Water Resources	3				Recommend Senior standing or a previous introductory GIS course.	Not currently scheduled.
CROP/ HORT 414	Precision Agriculture	4	S	S		Access to a computer with a valid Windows or Mac operating system is required for this course. Google Chromebooks will not be compatible with the required software.	
FE 310	Forest Route Surveying	4	S			(FE 208 or FE 308) or CE 361 or CEM 263 (all with C or better)	
FE 423	Unmanned Aircraft Systems Remote Sensing	3	F			GEOG 380 (was GEOG 480) or GEOG 481. Minimum grade of C.	Seniors only.
FW 303	Survey of Geographic Information Systems	3		U,F,W,S			NOT a lab/skills class.
GEOG 361	Quantitative Geospatial Analysis and Modeling	4	W	W		GEOG 360 and (MTH 112z, 241z, 251z) and ST 351. Min grade of C- in all	
GEOG 451	Planning Principles and Practices for Resilient Communities	4	F	W		CE202, FE 257 or GEOG 260 with min C-	
GEOG 460	GIS and Spatial Data Science	4	S	F		(GEOG 360, FE 257 or CE 202) and (MTH 112z, 251z) and (ST 314, 351 or 351H). Min grade of C- in all.	
GEOG 462	GIScience III: Programming for Geospatial Analysis	4	S	S		GEOG 361 or GEOG 460 with minimum grade of C-	

GEOG 463	Analytical Workflows for Earth Systems Science	4	F,S			ST314 or ST 351 with C- or better	
GEOG 464	Geospatial Perspectives on Intelligence, Security and Ethics	3	S	F,W,S		GEOG 360 with minimum grade of C-	
GEOG 472	Interactive Cartography	3	W			GEOG 361 or GEOG 370. Min C- in all.	
GEOG 481	Satellite Image Analysis	4	W	S		GEOG 380 (was GEOG 480) and (ST 314 or ST 351 or ST 351H) Minimum grade of C- in all	
NR 410	Internship	varies	U,F,W,S	U,F,W,S		*Must be approved by GIS Cert Program and of a GIS nature to count for certificate.*	Departmental Approval Required. Internship must involve GIS.
SOIL 468	Soil Landscape Analysis	4		W		SOIL/CSS 466 (may be taken concurrently).	

NATURAL RESOURCE ELECTIVES (11-12 minimum)

Choose a minimum of 11-12 credits in a disciplinary area related to GI Science to reach a minimum of 40 credits in the option. (37 credits for students admitted in Summer 2021 or later.) Student will be required to submit an academic plan for completion of the option which will be approved by the Natural Resources Program Director or academic advisor.

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.

IMPORTANT Advising Notes: Students pursuing the Landscape Analysis option should take MTH112z or MTH 241 and ST 351 for the greatest range of course choices. In addition, this specialization option will allow students to earn the Geographic Information Science Undergraduate Certificate through the College of Earth, Ocean, and Atmospheric Sciences concurrently with their BS degree through the College of Forestry. [Available on Corvallis Campus and Ecampus]

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CORV= CORVALLIS CAMPUS, CASC= CASCADES CAMPUS, ECMP = ECAMPUS / FALL = F, WINTER = W, SPRING = S, SUMMER = U

Option Code: Total Credits = 37

Natural Resource Education

MEASUREMENT AND ANALYSIS (4 credits)							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/ Advising Notes**
FES 422	Research Methods in Social Science	4	W	S	S		

FOUNDATIONS OF NATURAL RESOURCE EDUCATION (10 credits) REQUIRED							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
FOR 111+	Introduction to Forestry	3	F,S	U,W		CORE 100*, 300*, BA 100*, 300*, ED 100*, 300*, ENGR 110*, 310*, LA 100*, 300*, SCI 100* or 300*. * May be taken concurrently.	
OR FES 342	Forest Types of the Northwest	3		W	F		
FW 251	Principles of Fish and Wildlife Conservation	3	W	U,F,W,S	F	Recommend one course in Introductory biology	Corvallis campus restricted to FW majors.
TRAL 493	Environmental Interpretation	4	S	U,F, W			

EDUCATION AND PROGRAM DEVELOPMENT (13 credits)							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
ED 216+*	Purpose, Structure and Function of Ed in a Democracy	3	F, W,S	U, F,W, S	F, W		
OR ED 219+*	Social Justice, Civil Rights and Multiculturalism in Education	3	F,W,S	U,F,W,S	S		
ED 253+	Learning Across the Lifespan	3	F,W,S	U, F,W,S			
FES 430	Forest as Classroom	4		F,S			
SED 413	Inquiry in Science and Science Education	3	F	S		Analytical, evaluation, and reasoning skills.	

ELECTIVES (minimum of 10 credits)

CHOOSE YOUR PATH: Students select a minimum of 10 credits from either the Education Electives or Natural Resource electives (pr both). Students may choose to focus on teaching in informal education settings or formal classroom instruction in middle or high schools.

Students also pursuing the Secondary Education major or the Master of Science in Education should choose courses that can double count for the courses listed in Content Mastery for Biology or Integrated Science. An Oregon teacher license requires additional science courses not listed in the Natural Resource major or the Natural Resource Education option. To satisfy the biology and integrated science endorsement requirements, Natural Resource students need to take the 200-level biology, two additional courses in chemistry to make it a full year and at least two physics classes. Students must work closely with their advisor(s) to plan an appropriate plan of study to meet their goals.

EDUCATION ELECTIVES (Can double count with Education Major or Minor and preparation for teaching in a K-12 classroom)							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
AED 235	Introduction to Agricultural Education	2					Not currently scheduled.
AED 325	Planning and Delivering Non-Formal Ag Education	3					Not currently scheduled.
AHE 440	Introduction to Adult Learning	3				ED 253 recommended	Not currently scheduled.

AHE 445	Instructional Methods for Adult Learning	3					Not currently scheduled.
ED 216+*	Purpose, Structure and Function of Ed in a Democracy	3	F, W,S	U, F,W, S	F, W		
OR ED 219+	Social Justice, Civil Rights and Multiculturalism in Education	3	F,W,S	U,F,W,S	S		
ED 309	Field Practicum	variable	U,F,W,S	U,F,W,S			Requires Departmental Approval from College of Ed.
ED 325	Trauma Informed Care in Education	3	S				
ED 411	Applied Educational Psychology in K12 Schools	3		W		Recommend ED 253.	
ED 412	Learning Styles and needs in adolescence	2	F				Restricted to Education majors. Need to be double major.
ED 420	Classroom Management	3		U,F,S			
ED 458	Strategies for teaching wellness and fine arts	2	F,S	F,S		ED 216 and ED 219 and ED 253 recommended	
ED 472	Foundations of ESOL Education	3	F,S	U,F	F		
SED 406	Projects	varies					Requires Education Department approval.
NATURAL RESOURCE ELECTIVES (Background courses for informal educators)							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
BI 150	Introduction to Marine Biology	3	S				
BOT 301*	Human Impacts on Ecosystems	3	W			One year of biology or chemistry recommended.	Was BI 301.
FES/FW 452	Biodiversity Conservation in Managed Forests	3	W	F,S		Recommend FES 240 or FES 341 or BI 370.	No freshman or sophomore.
FW 302	Biology and Conservation of Marine Mammals	4	U (HMSC)	F,W,S		BI 221/222/223 or BI 204/205/206. Minimum C- in all.	
FW 324+*	Food from the Sea	3	S	U,F,W,S			No Freshman or Sophomore.
FW 426	Coastal Ecology and Resource Management	5	F (HMSC)	F (Hybrid)			Departmental Approval required. No Freshman or Sophomore. HMSC = Hatfield Marine Science Center.All majors welcome.
FW 451	Avian Conservation and Management	3	W	F, W		BI 370 or FW 321	
FW 448	Herpetofauna Conservation and Management	3		F		BI 370 or FW 321.	
FW 458	Mammal Conservation and Management	4	S	F,S		BI 370 or FW 321.	
FW 464	Marine Conservation Biology	3		W,S		BI 370 or BI 371.	
GEO 202+*	Earth Systems Science	4	W				
GEO 203+*	Evolution of Planet Earth	4	S				
GEO 307*	National Park Geology and Preservation	3	F	U,S			
LEAD 252*	Multicultural Leadership	3		S			
LEAD 342	Team and Organizational Leadership	3	W,S				

LEAD 430	Foundations of Adventure Leadership	3	F,S				Required field outing.
LEAD 432	Backcountry Leadership	3		W,S			
NR 380	Nature in Literature over the Centuries	3					Not currently scheduled.
PS 374*	Sustainable Living: Practices and Policies	4		S			
RNG 341	Rangeland Ecology and Management	3		F,W,S	W	BI 221z/222z/22z3 or BI 204/205/206. Coursework in soil science and ecology; analytical, critical thinking and synthesis skills.	
RNG 421	Rangeland Restoration and Management	4	S	F		BI 221z/222z/22z3 or BI 204/205/206 required. Recommend course work in soils and ecology.	
RNG 455	Riparian Ecohydrology and Management	4	S	W	F		
TRAL 251	Recreation Resource Management	4	F	S	W		
TRAL 351	Outdoor Recreation on Public Lands	4	W	F,S		TRAL 251 with minimum of C-	
TRAL 357*	Parks and Protected Areas Management	3	F	S	F		
Note: Up to 6 credits of appropriate internships, projects or study abroad may be used to fulfill requirements in this option as approved by petition.							
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Option Code: 679 **Total Credits:** 37							

Policy and Management

MEASUREMENT AND ANALYSIS (4 credits) CHOOSE ONE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/ Advising Notes**
FES 422	Research Methods in Social Science	4	W	S	S	ST 201 or ST 243z or ST 351	
PS 300^	Research Methods	4	F,W,S	U,F,W,S			
HUMAN DIMENSIONS OF NATURAL RESOURCE MANAGEMENT (6-8 credits) CHOOSE TWO							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
AG 201+*	Indigenous Ecosystem Sciences in PNW Regions	3	F	U,F,W			(was AG 301)
ANTH 477	Ecological Anthropology	4		U,F,S		Recommend 3 credits social science and Jr/Sr standing	
GEOG 240*	Human Dimensions of Climate Change	3	W	S			
GEOG 250+*	Land Use Planning for Sustainable Communities	3	F,S	W			
GEOG 300+*	Sustainability for the Common Good	3	F,W,S	U,F,W,S			No Freshman or Sophomore.
GEOG 350+*	Geography of Natural Hazards	3	F,S	W			
GEOG 430	Resilience-Based Natural Resource Management	3		S			
GEOG 451	Planning Principles and Practices for Resilient Communities	4	F	W		CE202, FE 257 or GEOG 260 with min C-	
OR GEOG /ENSC 452	Environmental Assessment	3	S				
NR 312	Critical Thinking for NR Challenges	3					
SOC 204z+*	Introduction to Sociology	3	F,W,S	U,F,W,S	W		
SOC 480*	Environmental Sociology	4	F (hybrid)	U			Corv section: No Freshman or Sophomore Ecampus Section: No Freshman
SOC 481*	Society and Natural Resources	4	S	U, F, W,S			No freshman.
SUS 331+*	Sustainability, Justice, and Engagement	3	W,S	F, W		Recommend completion of Difference, Power and Oppression course; collaboration, critical thinking and synthesis skills.	
SUS 350+*	Sustainable Communities	4	W,S	U,F,W,S	F		No Freshman or Sophomore.
POLITICS AND POLICY of NATURAL RESOURCES (12-13 credits) CHOOSE FROM AT LEAST TWO DEPARTMENTS							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
AEC 253*	Environmental Law, Policy and Economics	4	W,S	U, F,W, S			
AEC 122+*	Introduction to Climate Change Economics and Policy	3	F	U,F			

AEC 351*	Natural Resources Economics & Policy	3	W	F, S		AEC 250 or ECON 201z. MTH111z is recommended.	
AEC/ECON 352*	Environmental Economics and Policy	3	F,S	U,F,W,S	S	AEC 250 or ECON 201z	
AEC 353*	Introduction to Coastal and Marine Resource Economics	3				MTH 111z [was MTH 111] and AEC 250 or ECON 201z. All with C- or above.	Not currently scheduled.
AEC 432	Environmental Law	4					Not currently scheduled.
ANTH 472	Contemporary Native Issues	4	F	S		3 credits of social science	
ES 444	Native American Law: Tribes, Treaties and the US	4		S			
FES 365*	Issues in Natural Resource Conservation	3		U,W	W		
FES 486^	Public Lands Policy and Management	3	F, S	U, F,W,S	W		Sophomore standing recommended.
FOR 431	Economics and Policy of Forest Wildland Fire	4	S	S		AEC 250 or ECON 201z or FOR 330 with minimum C.	
FOR 461	Forest Policy Analysis	3					Not currently scheduled.
FOR/FE 463^	Forest Policy and Regulation	3	F,W				No Freshman/Sophomore.
FW 350+*	Endangered Species, Society and Sustainability	3		U,F, W	W	Recommend FW 251.	No Freshman or Sophomore.
FW 415	Fish and Wildlife Law and Policy	3		F,W		Recommend PS 201 or other political science intro course.	
FW 422	Introduction to Ocean Law	3					Not currently scheduled.
PPOL 201+	Intro to Public Policy	4	F	W			
PPOL/PS 371	Public Policy Problems	4	F	W			
PPOL 446	The Policy and Law of US Coastal Governance	4		W			
PPOL 447	Integrated Policy: Food, Energy, Water, Climate	4		U			
PPOL 448	Marine Policy in the United States	4		S			
PS 201+*	Introduction to United States Government and Politics	4	F,W,S	U,W	F		
PS 455*	The Politics of Climate Change	4		W			
PS 470	Global Food Politics and Policy	4	S				
PS 473	U.S. Energy Policy	4		S			
PS 475	Environmental Politics and Policy	4	F	U,F,W,S	S (hybrid)		
PS 477	International Environmental Politics and Policy	4		F			
PS 478	Renewable Energy Policy	4		W			
CONSERVATION AND MANAGEMENT OF NATURAL RESOURCES (Choose 12 credits minimum)							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
BA 251	Managing Organization	4	S	U,F,W,S			No Freshman.

BOT 440	Field Methods in Plant Ecology	4		U,S		Recommend an ecology course and statistics.	
ENSC 321^	Environmental Case Studies	3	F,W,S	U,F,W,S	W	Recommend WR 121 and one year of college bio; critical thinkings, problem solving and writing skills	
FES 440	Wildland Fire Ecology	3	W	W,S	S	Recommended for Juniors or Seniors with coursework in Ecology and Natural Resource Management, analytical, critical thinking and reasoning skills.	
FES/HORT 455	Urban Forest Planning, Policy and Management	4		F,W		FES 350 or HORT 350 with minimum grade of C-	
FES/FW 445	Ecological Restoration	4	F,S	U,F, W, S	S	Recommend BI 370	
FOR 346	Topics in Wildland Fire	3	S	W,S		Recommend coursework in forest biology or ecology such as FES 240 or FES 341	
FOR 436	Wildland Fire Science and Management	4	F	F,W			
FOR 441	Silviculture Principles	4	F	F		FES 240 **AND** FES 241 with C minimum in all.	
FW 303	Survey of Geographic Information Systems	3		U,F,W,S			NOT a lab/skills class.
~~FW 321~~	~~Applied Community and Ecosystem Ecology~~	3	F,S	U, F, W, S		(BI 211/212/213) or (BI 221z/222z /223z) or (BI 204/205/206) . A minimum grade of C- is required in BI 221z & Bi 204. Min D- in remaining.	Now restricted to Fish and Wildlife Conservation Science majors.
FW 323	Management Principles of Pacific Salmon in Northwest	3		U,F,W,S	S		
FW 325+*	Global Crises in Resource Ecology	3		F,W,S			No Freshman or Sophomore.
FW 326	Integrated Watershed Management	3		U,F,W,S	W	FW 251 recommended	No Freshman.
FW 448	Herpetofauna Conservation and Management	3		F		BI 370 or FW 321.	
FW 451	Avian Conservation and Management	3	W	F, W		BI 370 or FW 321	
FW 458	Mammal Conservation and Management	4	S	F,S		BI 370 or FW 321.	
FW 479	Wetlands and Riparian Ecology	3		U,F,W,S		BI 370 or FW 321.	
GEOG 201+*	Foundations of Geospatial Science and GIS	4	F,W,S	U,F,W,S			
GEOG 340*	Introduction to Water Science and Policy	3	F	U, W, S	F		
GEOG 424	Hydrology for Water Resources Management	3	W			ST 314 or ST 351	
GEOG 440	Conflict, Cooperation, and Control of Water in the US	3		W			
GEOG 441	The World's Water	3					Not currently scheduled.
NMC 311	Intro to Non-Profit Management	3					Not currently scheduled.
RNG 455	Riparian Ecohydrology and Management	4	S	W	F		
RNG 491^	Rangeland Management and Planning	4		F		RNG 341	

TRAL 357*	Parks and Protected Areas Management	3	F	S	F		
RESOURCE ECONOMICS (3-4 credits) CHOOSE ONE							
AEC 351*	Natural Resources Economics & Policy	3	W	F, S		AEC 250 or ECON 201z. MTH111z is recommended.	
AEC/ECON 352*	Environmental Economics and Policy	3	F,S	U,F,W,S	W	AEC 250 or ECON 201z	
AEC 353*	Introduction to Coastal and Marine Resource Economics	3				MTH 111z [was MTH 111] and AEC 250 or ECON 201z. All with C- or above.	Not currently scheduled.
ECON 466	Economics of Traditional and Renewable Energy	4	W			ECON 201z	This course requires online proctored testing, which may include testing fees and the use of security measures, such as a scan of your testing environment. Please carefully review online proctor test information at: beav.es/proctoring.
FOR 329	Forest Resource Economics I	4	W			ST 243z [was ST 201] or ST 351	
FOR 431	Economics and Policy of Forest Wildland Fire	4	S	S		AEC 250 or ECON 201z or FOR 330 with minimum C.	
TRAL 432	Economics of Recreation and Tourism	3	S	S		Recommend AEC 250 or ECON 201z and ST 202 or 202H	
Note: Up to 6 credits of appropriate internships, projects or study abroad may be used to fulfill requirements in the Social Science & NR, NR Policy or NR Management blocks as approved by petition.							
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Option Code: 791 **Total Credits =** 37							

Urban Forest Landscapes

MEASUREMENT AND ANALYSIS (2 credits) CHOOSE ONE								
Course #		Course Name	Credits	CORV	ECMP	CASC	Prerequisites	Restrictions/ Advising Notes
FES 475		Urban Forest Data Analysis	2		S		FES 455 or HORT 455	Replaces BOT 440 or GEOG 360
URBAN FOREST FOUNDATIONS (25-26 credits) REQUIRED								
Course #		Course Name	Credits	CORV	ECMP	CASC	Prerequisites	Restrictions/Advising Notes
BOT 341		Plant Ecology	4	S	F,W,S		Recommend BOT 321 and BI 223	Fall Ecampus section restricted to BOT majors.
OR	BOT 451	Plant Pathology	4	F	W,S		BI 221z/222z/223z or BI 204/205/206 or BOT 220. Min C- in all.	
OR	FES 412	Forest Entomology	3	S			BI 204 or BI 211 or BI 212 or BI 221 with C or higher and/or equivalent.	
OR	BOT/ FOR 413	Forest Pathology	3	W			BI 204, BI 221z, BI 221, BI 213 or FES 240 with a minimum of C.	
FES/HORT 350		Urban Forestry	3		F, W		Foundational Horticulture or Forestry courses recommended.	
FES/FW 445		Ecological Restoration	4	F,S	U,F, W, S	S	Recommend BI 370	
FES/HORT 447		Arboriculture	4				Recommend (FES 241 or HORT 226 or HORT 228) and (FOR 111 or HORT 112)	Not currently scheduled.
FES/HORT 455		Urban Forest Planning, Policy and Management	4		F,W		FES 350 or HORT 350 with minimum grade of C-	
FW 462		Ecosystems Services	3		W,S		BI 370 or equivalent recommended.	
OR	FW 418	Urban Ecology	3		U,F,W		BI 370 or FW 321	
HORT 315		Sustainable Landscapes: Maintenance, Conservation, Restore	4	W	S		Recommend basic knowledge of plant physiology.	
SOCIAL/POLITICAL/COMMUNITY INTEGRATION (11-12 credits) REQUIRED								
Course #		Course Name	Credits	CORV	ECMP	CASC	Prerequisites	Restrictions/Advising Notes
ANTH 481*		Natural Resources and Community Values	3	F(honors),W	U, F,W,S		Recommend 3 credits of social science	
OR	SOC 481*	Society and Natural Resources	4	S	U, F, W,S			No freshman.
AEC 432		Environmental Law	4					Not currently scheduled.
OR	FOR/ FE 463^	Forst Policy and Regulation	3	F,W				
OR	PS 475	Environmental Politics and Policy	4	F	U,F,W,S	S (hybrid)		
GEOG 250+*		Land Use Planning	3	F,S	W			

OR	GEOG 451	Planning Principles and Practices for Resilient Communities	4	F	W		CE202, FE 257 or GEOG 260 with min C-	
OR	GEOG /ENSC 452	Environmental Assessment	3	S				
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.								
**=Baccalaureate Core / ^ =WIC (Writing Intensive Course) / + = Core Education (for students admitted SU 25 onward.* *CORV= CORVALLIS CAMPUS, CASC= CASCADES CAMPUS, ECMP = ECAMPUS / FALL = F, WINTER = W, SPRING = S, SUMMER = U*								
IMPORTANT Advising Notes: Students pursuing the Urban Forest Landscapes Option MUST take a "Biology for Science majors" series. (BI 211/212/213 or BI 204/205/206 or BI 221z/222z/223z or an equivalent series that transfer as BI LD2)								
Option Code: 685 **Total Credits** = 37								

Wildland Fire Ecology

MEASUREMENT AND ANALYSIS (3-4 credits) CHOOSE ONE							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/ Advising Notes**
BOT 440	Field Methods in Plant Ecology	4		U,S		Recommend an ecology course and statistics.	
FE 208	Forest Surveying	4	F,W	S		MTH 112 or MTH 241 or MTH 245 or MTH 251 or MTH 252 with C or better.	
FE 257	GIS and Forest Engineering Applications	3	W	F			
FW 255	Field Sampling of Fish and Wildlife	3	F, S	U,F, W,S	S	Recommend WR 121 and familiarity with personal computers recommended.	Corvallis section restricted to F&W majors. Ecampus restricted to online students until wk 10
GEOG 201+*	Foundations of Geospatial Science and GIS	4	F,W,S	U,F,W,S			
GEOG 360	Geoscience I: Geographic Information Systems and Theory	4	F,W,S	U,F, W,S	W		
GEOG 361	Quantitative Geospatial Analysis and Modeling	4	W	W		GEOG 360 and (MTH 112z, 241z, 251z) and ST 351. Min grade of C- in all	
FOUNDATIONS IN WILDLAND FIRE ECOLOGY (17 credits) REQUIRED							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
FES 440	Wildland Fire Ecology	3	W	W,S	S	Recommended for Juniors or Seniors with coursework in Ecology and Natural Resource Management, analytical, critical thinking and reasoning skills.	
FES/FW 445	Ecological Restoration	4	F,S	U,F, W, S	S	Recommend BI 370	
OR RNG 421	Rangeland Restoration and Management	4	S	F		BI 221z/222z/223z or BI 204/205/206 required. Recommend course work in soils and ecology.	
FOR 431	Economics and Policy of Forest Wildland Fire	4	S	S		AEC 250 or ECON 201z or FOR 330 with minimum C.	
FOR 436	Wildland Fire Science and Management	4	F	F,W			
FOR 438	Wildfire Risk Science	4	S	S		Recommend FOR 346, FOR 436 or FES 440	
ECOLOGICAL AND NATURAL RESOURCE ELECTIVES (Choose 17-18 credits)							
Course #	**Course Name**	**Credits**	**CORV**	**ECMP**	**CASC**	**Prerequisites**	**Restrictions/Advising Notes**
BI 370	General Ecology	3	F,W,S	U, F,W,S	W	BI 221/222/223 or BI 221z/222z/223z OR BI 204/205/206. A minimum grade of C- in all.	
BOT 341	Plant Ecology	4	S	F,W,S		Recommend BOT 321 and BI 223	Fall Ecampus section restricted to BOT majors.
BOT/FOR 413	Forest Pathology	3	W			BI 204, BI 221z, BI 221, BI 213 or FES 240 with a minimum of C.	
BOT 425	Flora of the Pacific Northwest	3	S			Recommend BOT 321.	

CROP 440	Weed Management	4	F	F,W		Recommend one year biological science and one course in organic chemistry.	
FE 208	Forest Surveying	4	F,W	S		MTH 112 or MTH 241 or MTH 245 or MTH 251 or MTH 252 with C or better.	
FE 430	Watershed Processes	4		W			No freshman or sophomore
FE 434	Forest Watershed Management	4	F			(CH 121 or CH201 or CH231) and (SOIL 205 or CSS 305 or CSS 205) and (MTH 241 or MTH 251). All with C minimum grade.	
FES 341	Forest Ecology	3	F, W	F, W, S	F	FES 240 or (BI 221/222/223) or (BI 204/205/206) or BI 370	Students who take the BI 1XX series MUST take FES 240 Forest Biology for the Forestry requirement in order to take FES 341Forest Ecology. BI 2XX series is the preferred biology for the NR major.
FES 342	Forest Types of the Northwest	3		W	F		
FES 412	Forest Entomology	3	S			BI 204 or BI 211 or BI 212 or BI 221z with C or higher and/or equivalent.	
FES/FW 452	Biodiversity Conservation in Managed Forests	3	W	F,S		Recommend FES 240 or FES 341 or BI 370.	No freshman or sophomore.
FOR 252	Wildland Fire Guard School	2	S			Blended learning.	
FOR 346	Topics in Wildland Fire	3	S	W,S		Recommend coursework in forest biology or ecology such as FES 240 or FES 341	
FOR 431	Economics and Policy of Forest Wildland Fire	4	S	S		AEC 250 or ECON 201z or FOR 330 with minimum C.	
FOR 441	Silviculture Principles	4	F	F		FES 240 **AND** FES 241 with C minimum in all.	
FOR 452	Prescribed Fire Practicum	3	F			FOR 252 required or concurrently	
FW 251	Principles of Fish and Wildlife Conservation	3	W	U,F,W,S	F	Recommend one course in Introductory biology	Corvallis campus restricted to FW majors.
~~FW 321~~	~~Applied Community and Ecosystem Ecology~~	3	F,S	U, F, W, S		(BI 211/212/213) or (BI 221z/222z /223z) or (BI 204/205/206) . A minimum grade of C- is required in BI 221z & Bi 204. Min D- in remaining.	Now restricted to Fish and Wildlife Conservation Science majors.
FW 448	Herpetofauna Conservation and Management	3		F		BI 370 or FW 321.	
FW 451	Avian Conservation and Management	3	W	F, W		BI 370 or FW 321	
FW 456	Freshwater Ecology and Conservation	5	S	W, S		BI 370 or BI 371 required. Recommend 9 credits of upper division biological science.	
FW 458	Mammal Conservation and Management	4	S	F,S		BI 370 or FW 321.	
FW 479	Wetlands and Riparian Ecology	3		U,F,W,S		BI 370 or FW 321	
FW 481	Wildlife Ecology	4		U, S	S	BI 370 or FW 321	

NR 325		Scientific Methods for Analyzing Natural Resource Problems	3		F		MTH111, 111z (C- or better) or score of 60 in ALEKS Math Placement test.	
RNG 441		Vegetation Monitoring and Analysis	4		S		BI 221z/222z/223z or BI 204/205/206. Recommend coursework in ecology.	
RNG 491^		Rangeland Management and Planning	4		F		RNG 341	
SOIL 366		Ecosystems of Wildland Soils	3	F			SOIL 205 or CSS 205	
OR	SOIL 388	Soil Systems and Plant Growth	4		F		SOIL 205 (and SOIL /FOR 206) or CSS 205 and (CH 121 or CH 221z) and BOT 220 or (BI 204/205205) or (BI 211/212/213) or BI 221/222/223)	
OR	SOIL 466	Soil Morphology and Classification	4	F			SOIL 205 or CSS 205	
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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IMPORTANT Advising Notes: Students pursuing the Wildland Fire Ecology Option should check the prerequisites above carefully. Depending on course choices student may need to take a "Biology for Science majors" series. (BI 211/212/213 or BI 204/205/206 or BI 221z/222z/223z or an equivalent series that transfer as BI LD2). Students in this option may also need to take MTH 112z Elementary Functions for the "Mathematics" requirement, Soil Science for the "Land Science" requirement in order to have greatest choice of electives.								
Option Code: 687 **Total Credits** = 37								

Individualized Specialty Option

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 their academic advisor, students will develop a written proposal for a program of study that meets their goals as well as academic requirements. All specializations must have a minimum of 37 credits with at least 20 of those credits being upper-division credits. The proposal is submitted to the Natural Resources Program Director for approval. This plan should be submitted at least 6 terms prior to the planned graduation term. Students should contact their assigned academic advisor for information on developing an Individualized Specialty Option.

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

Water Resource Management

Sustainable Wilderness Recreation 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

Forest Management on Tribal Lands

Available on all campuses.