

Bachelor of Science in Environmental Sciences

Central Oregon Community College Transfer Guide

Environmental Sciences: Program Overview

An Environmental Sciences undergraduate degree provides a rigorous education that can lead to helping to understand and resolve some of today's most challenging scientific and policy issues—including global climate change, pollution, biodiversity conservation, sustainability, and balancing resource use and preservation. To help reach these objectives, the Bachelor of Science in Environmental Sciences offers an interdisciplinary approach to environmental problem solving. As an Environmental Sciences major, a student completes course work in four general areas:

1. OSU's Graduation requirements
2. Baccalaureate Core
3. Major Curriculum
 - Science and math
 - Environmental sciences and humanities core
 - Specialization Option
 - Applied Ecology or
 - Conservation, Resources and Sustainability
 - Experiential learning

Degree requirements are subject to change and dependent on catalog year in admission to OSU and major declaration.

Graduation Requirements:

- 180 total college credits
- 60 upper division credits (300-400 Level)
- 45 out of last 75 credits must be OSU credits
- 135 max credits transferred from Community College (lower division)

Degree Planning Notes:

- Consider applying for Degree Partnership Program (DPP).
- Students completing an AAOT should use this guide to help you select and plan classes and requirements
- Transfer Admissions Advising:
osucascades.edu/admissions/admissions-advising

A. Baccalaureate Core Requirements (Bacc Core)

Find the approved list of COCC courses that complete Bacc Core at the following website:

admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-central-oregon-community-college An AAOT degree will complete all Skills and Perspectives courses in the Bacc Core.

Skills	Non- AAOT Track	AAOT track
Lifetime Fitness/Lifetime Fitness Lab or PAC	HHP 295	AAOT completes
Math	MTH 251 in major	AAOT completes
WR I	WR 121	AAOT completes
WR II	See COCC Bacc Core Guide	AAOT completes
Speech	See COCC Bacc Core Guide	AAOT completes
Perspective: no more than 2 courses from one subject area may be used to fulfill Perspectives requirement		
Cultural Diversity (CD)	See COCC Bacc Core guide	AAOT completes
Literature & Arts	See COCC Bacc Core guide	AAOT completes
Social Processes & Institutions (SPI)	ECON 201 in major (if selected)	AAOT completes
Western Culture (WC)	See COCC Bacc Core guide	AAOT completes
Physical Science	PH 201 or PH 211 in major	AAOT completes
Biological Science	BI 211 in major	AAOT completes
Phys/Bio Science	BI 212 in major	AAOT completes
Difference, Power, Discrimination (DPD)	See COCC Bacc Core guide	AAOT completes
Synthesis: The two courses used to fulfill the Synthesis requirement may not be in the same department		
Contemporary Global Issues (CGI)	OSU Only	OSU Only
Science, Tech. and Society (STS)	OSU Only	OSU Only

Environmental Sciences Major Requirements- Courses taken in sections B and C can double count in Bacc Core requirements. Students cannot S/U major requirements. A grade of C- or better in required in all upper division courses.

B. Science and Math Requirements

BIO Sequence: OSU Courses (whole sequence needs to be completed at same institution)	BIO Sequence: COCC Courses (whole sequence needs to be completed at same institution)
BI 221 (4) Principles of Biology	BI 211 (4) Principles of Biology I
BI 222 (4) Principles of Biology	BI 212 (4) Biology of Plants II
BI 223 (4) Principles of Biology	BI 213 (4) Biology of Animals III
Chemistry Sequence: OSU Courses	Chemistry Sequence: COCC Courses
CHEM 121 or CH 231/261 (5)	CHEM 221 (5) Gen Chemistry I
CHEM 122 or CH 232/262 (5)	CHEM 222 (5) Gen Chemistry II
CHEM 123 or CH 233/263 (5)	CHEM 223 (5) Gen Chemistry III
Physics Sequence: OSU Courses	Physics Sequence: COCC Courses
(PH 201 and PH 202) or (PH 211 and PH 212)	(PH 201 and PH 203) or (PH 211 and PH 213)
Math and Statistics: OSU Courses	Math and Statistics
MTH 251 (4) Differential Calculus	MTH 251 (4)
MTH 252(4) Integral Calculus	MTH 252 (4)
ST 351 (4) Intro Statistical Methods	OSU Only
ST 352 (4) Intro Statistical Methods	OSU Only

C. Environmental Sciences and Humanities Core

Env. Sciences Orientation: OSU- Cascades Course	Env. Sciences Orientation COCC Course
ENSC 101- Environmental Sciences Orientation	<i>OSU only</i>

Natural Environment Systems: OSU-Cascades Courses	Natural Environment Systems: COCC Courses
ENSC 452 (3) <i>Environmental Assessment</i>	<i>OSU only</i>
ATS 201 (4) Climate Science <i>Atmosphere</i>	GEOG 279 (4) Physical Geography -Weather and Climate
BI 370 (3) Ecology <i>Biosphere</i>	<i>OSU only</i>
SOIL 205/206 (4) Soil Science and Lab <i>Geosphere</i>	FOR 208 (4) Soils- Sustainable Ecosystems <u>or</u> G 202(4) Geology II <u>or</u> GEOG 278 Landforms and Water <i>(only select one course)</i>
GEOG 340 (3) Intro Water Science & Policy <i>Hydrosphere</i>	<i>OSU only</i>
Humans and the Environment: OSU-Cascades Courses	Humans and the Environment: COCC Courses
Economics <i>(only select one course)</i> <ul style="list-style-type: none"> • AEC 352 (3) Environmental Econ. & Policy • ECON 201 (4) Intro to Microeconomics • PS 475 (4) Environmental politics 	Economics <ul style="list-style-type: none"> • <i>OSU only</i> • EC 201 (4) Microeconomics • <i>OSU only</i>
Ethics <i>(only select one course)</i> <ul style="list-style-type: none"> • GEO 309 (3) Environmental Justice • SOC 480 (4) Environmental Sociology 	Ethics <ul style="list-style-type: none"> • <i>OSU only</i> • <i>OSU only</i>
Human Environment <i>(only select one course)</i> <ul style="list-style-type: none"> • ENSC 479 (3) Environ. Case Studies WIC • SUS 102 (4) Intro to Env. Science & Sustainability • SUS 350 (4) Sustainable Communities • Z349 (3) Biodiversity: Causes, Consequences & Conservation 	Human Environment <ul style="list-style-type: none"> • <i>OSU only</i> • <i>OSU only</i> • <i>OSU only</i> • <i>OSU only</i> • GEOG 190 Environmental Geography
Management <i>(only select one course)</i> <ul style="list-style-type: none"> • FES 365 (3) Issues in NR Conservation • FES 445 (4) Ecological Restoration • FW 251 (3) Fish and Wildlife Conservation • FW 323 (3) Mgmt Principles of Pacific Salmon • NR 455 (4) Natural Resource Decision Making • RNG 341 (3) Rangeland Ecology • RNG 355 (3) Desert Watershed Management • RNG 455 (4) Riparian Ecohydrology and Mgmt 	Management <ul style="list-style-type: none"> • <i>OSU only</i> • <i>OSU only</i> • FW 251 (3) Wildlife Conservation • <i>OSU only</i> • <i>OSU only</i> • <i>OSU only</i> • <i>OSU only</i> • <i>OSU only</i>

D. Specialization Area: Total credits should 27. Courses taken in Specialization Area can double count with Bacc Core requirements. Courses taken in Specialization Area cannot double count with Basic Science and Math Courses or Environmental Sciences and Humanities Core. A list of specializations and worksheets are available at <http://ceas.oregonstate.edu/envsci/>. Contact your advisor to declare a specialization.

E. Experiential Learning: (3 credits) – *OSU only or with Departmental approval*

The program must contain at least one internship, research, or study abroad experience that provides opportunities for hands-on experience in design and collection of observations in the physical, biological or social environment. Students are urged to work with Internship Coordinator at an early stage in their study to identify experiences that are appropriate. *One (or more) internship, research, or study abroad experience:*

- ENSC 401. Research and Scholarship
- ENSC 410. Environmental Science Internship
- Programs: Study Abroad, IE3 Intern etc.
- Alternative Approved Courses: BI 371, BI 375

D. Specializations offered at OSU-Cascades: Applied Ecology or Conservation, Resources, and Sustainability

Courses taken in Specialization Area cannot double count with Basic Science and Math Courses or Environmental Sciences and Humanities Core

Applied Ecology Option (min. 27 Credits): The Applied Ecology option is for Environmental Sciences students who seek to orient their studies around ecology. This is applied ecology and therefore includes geographic methods for measuring and data collection in ecological change. Students seeking a concentration in policy and management are encouraged to consider the Conservation, Resources, and Sustainability option.

Applied Ecology Core: OSU-Cascades Courses (10-20 credits)	Applied Ecology Core: COCC Courses
Ecological Studies (<i>only select one course</i>) <ul style="list-style-type: none"> • FES 341 (3) Forest Ecology • RNG 341 (3) Rangeland Ecology and Management 	Ecological Studies <ul style="list-style-type: none"> • OSU only • OSU only
Field Methods: (<i>only select one course</i>) <ul style="list-style-type: none"> • BI 371 (3) Ecological Methods WIC • BI 375 (4) Field Methods in Ecology Restoration • RNG 353 (4) Wildland Plant Identification 	Field Methods <ul style="list-style-type: none"> • OSU only • OSU only • OSU only
Geographic Methods: <ul style="list-style-type: none"> • GEOG 360 (4) GIS systems & Theory 	Geographic Methods <ul style="list-style-type: none"> • GEOG 266 (5) ARC GIS
Electives: OSU-Cascades Courses (9-17 credits) from approved list. See ENSC Checklist	Electives: OSU only

Conservation, Resources, & Sustainability Option (min. 27 credits): This option provides Environmental Sciences students the opportunity to explore the many course offerings at OSU in the areas of conservation, resource management, and sustainability. The option features broad course choices and flexibility in response to diverse student interests and changing environmental science applications.

Conservation, Resources & Sustainability Option courses can only be fulfilled at OSU	
Conservation (Choose at least 3 courses from approved list) See ENSC Checklist	OSU only
Resource Mgmt. and Policy (Choose at least 3 courses from approved list) See ENSC Checklist	OSU only
Society and Values (Choose at least 3 courses from approved list) See ENSC Checklist	OSU only
Additional Electives from above to complete 27 credits	OSU only