Environmental Science (BA/BS)

Work alongside world-class scholars and researchers, develop concrete skills and analytical abilities, and gain real-world experience with the environmental science major. You will learn from an interdisciplinary approach to the natural sciences—including biology, geology, chemistry, physical geography, and data analysis—and gain an understanding of how social sciences, policy, humanities, and design inform our approaches to solving environmental issues.

The environmental science major is flexible, allowing you to tailor coursework to meet your specific educational and career goals. We also prioritize practical learning experiences where you will link theory to practice and build transferable skills through internships, research, and community involvement. This major is designed for students who want to focus on careers in fields such as conservation biology; pollution prevention and abatement; climate and the atmosphere; water resources; and ecosystem protection, restoration, and management.

Program's Admission Requirements

Please visit the program's website (https://cas.uoregon.edu/envs/apply/).

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Articulate the contributions from the social sciences, natural sciences, and humanities in understanding and addressing environmental issues.
- Discuss major root causes of environmental problems and avenues for addressing them.
- Discuss several key concepts within the field of environmental sciences (e.g., biodiversity and biological conservation, climate change, watershed health, water and nutrient cycles, energy flows), drawing on interdisciplinary perspectives.
- Demonstrate critical thinking and communication skills, including the ability to: a) Critically analyze environmental information, data and problems; b) Interpret scientific communication, including writing, figures, and tables; c) Synthesize diverse information sources; d) Communicate effectively through written and oral communication.

Environmental Science Major Requirements

The major requires a minimum of 112 credits including 60 upper-division credits. Upper-division credits may be earned through coursework or through a combination of coursework and an honors thesis. Sample course plans are available on the program's website. Major requirements sheets containing detailed information about specific courses that meet the major requirements are available in the program office, from an environmental science advisor, or on the program website (http://envs.uoregon.edu/undergrad/escifocus/).

Code	Title	Credits
Lower-Division Core Courses		
ENVS 201	Introduction to Environmental Studies: Social Sciences	4
ENVS 203	Introduction to Environmental Studies: Humanities	4
Mathematics and Statistics Courses		
MATH 246–247	Calculus for the Biological Sciences I-II	8
or MATH 251–252	Calculus I-II	
Approved statistics course		4
Approved course in analytical approaches		4
Lower-Division Introductory Science Sequences		
Two introductory sequences in focal area		24
Up to three approved introductory courses in nonfocal area [1]		12
Upper-Division Natural Science Courses		
Six upper-division natural science courses in focal area (life sciences or earth and physical sciences)		24
At least two upper-division courses in nonfocal area [1]		8
Upper-Division Social Science, Policy, Humanities, and Design Courses		
Three courses from the areas of social science, policy, humanities, or design (no more than one course per area)		12
Environmental Issues Course		
ENVS 411	Environmental Issues: [Topic]	4
or ENVS 425	Environmental Education Theory and Practice	
or ENVS 427	Environmental and Ecological Monitoring	
Practical Learning Experience		
Choose from one of several approved practical learning experience options. These include internships, participation in the Environmental Leadership Program, research experiences with UO faculty members, and honors thesis.		4
Total Credits		**112**

[1] Five courses total are required for nonfocal area.

Four-Year Degree Plan

The degree plan shown is only a sample of how students may complete their degrees in four years. There are alternative ways. Students should consult their advisor to determine the best path for them.

Bachelor of Arts in Environmental Science (Life Science Focus)

Course	Title	Credits	Milestones
First Year			
Fall			
General-education course in arts and letters		4	
CH 221	General Chemistry I	4	
First term of first-year second-language sequence		4	
MATH 111Z	Precalculus I: Functions	4	
	Credits	**16**	
Winter			
WR 121Z	Composition I	4	
CH 222	General Chemistry II	4	
Second term of first-year second-language sequence		4	
MATH 112Z	Precalculus II: Trigonometry	4	
	Credits	**16**	
Spring			
ENVS 203	Introduction to Environmental Studies: Humanities	4	

CH 223	General Chemistry III	4
Third term of first-year second-language sequence		4
MATH 251 or MATH 246	Calculus I or Calculus for the Biological Sciences I	4
	Credits	**16**
	Total Credits	**48**

Course	Title	Credits	Milestones
Second Year			
Fall			
First term of second-year second-language sequence		4	
MATH 252 or MATH 247	Calculus II or Calculus for the Biological Sciences II	4	
BI 211	General Biology I: Cells	5	
General-education course in social science		4	
	Credits	**17**	
Winter			
Second term of second-year second-language sequence		4	
ENVS 201	Introduction to Environmental Studies: Social Sciences	4	
BI 212	General Biology II: Organisms	5	
MATH 425	Statistical Methods I	4	
	Credits	**17**	
Spring			
Third term of second-year second-language sequence		4	
WR 122Z or WR 123	Composition II or College Composition III	4	
BI 213	General Biology III: Ecology and Evolution	5	
ERTH 305	Dinosaurs	4	
	Credits	**17**	
Summer			
ERTH 201	Dynamic Planet Earth	4	
ERTH 202	Earth's Surface and Environment	4	
ERTH 203	History of Life	4	
	Credits	**12**	
	Total Credits	**63**	

Course	Title	Credits	Milestones
Third Year			
Fall			
PHIL 340	Environmental Philosophy	4	
BI 370	Ecology	5	
General-education course in arts and letters		4	
Elective course		4	
	Credits	**17**	
Winter			
ANTH 362	Human Biological Variation	4	
BI 357	Marine Biology	4	
Elective courses		8	
	Credits	**16**	
Spring			
GEOG 341	Population and Environment	4	
ENVS 335	Allocating Scarce Environmental Resources	4	
Elective courses		8	
	Credits	**16**	
	Total Credits	**49**	

Course	Title	Credits	Milestones
Fourth Year			
Fall			
BI 380	Evolution	4	
Elective courses		8	
ENVS 477	Soil Science	4	
	Credits	**16**	
Winter			
ENVS 427	Environmental and Ecological Monitoring	4	
BI 471	Population Ecology	4	
Elective courses		8	
	Credits	**16**	
Spring			
ENVS 429	Environmental Leadership: [Topic]	4	
BI 448	Field Botany	4	
Elective courses		8	
	Credits	**16**	
	Total Credits	**48**	

Bachelor of Science in Environmental Science (Life Science Focus)

Course	Title	Credits	Milestones
First Year			
Fall			
ENVS 201	Introduction to Environmental Studies: Social Sciences	4	
WR 121Z	Composition I	4	
General-education group-satisfying course		4	
General-education course that also satisfies a international cultures multicultural requirement		4	
	Credits	**16**	
Winter			
WR 123	College Composition III	4	
MATH 111Z	Precalculus I: Functions	4	
General-education courses		8	
	Credits	**16**	
Spring			
ENVS 203	Introduction to Environmental Studies: Humanities	4	
MATH 112Z	Precalculus II: Trigonometry	4	
General-education courses		8	
	Credits	**16**	
	Total Credits	**48**	

Course	Title	Credits	Milestones
Second Year			
Fall			
CH 221	General Chemistry I	4	
ERTH 201	Dynamic Planet Earth	4	
MATH 251	Calculus I	4	
Multicultural course in international cultures		4	
	Credits	**16**	
Winter			
CH 222	General Chemistry II	4	
ERTH 202	Earth's Surface and Environment	4	
MATH 252	Calculus II	4	
BI 211	General Biology I: Cells	5	
	Credits	**17**	
Spring			
General-education course		4	
ERTH 203	History of Life	4	
CH 223	General Chemistry III	4	
BI 213	General Biology III: Ecology and Evolution	5	
	Credits	**17**	
	Total Credits	**50**	

Course	Title	Credits	Milestones
Third Year			
Fall			
ANTH 330	Hunters and Gatherers	4	
GEOG 341	Population and Environment	4	
General-education course		8	
	Credits	**16**	
Winter			
ANTH 361	Human Evolution	4	
ANTH 349	Origins of Art	4	
BI 212	General Biology II: Organisms	5	
ENVS 345	Environmental Ethics	4	
	Credits	**17**	
Spring			
ANTH 462	Primate Evolution	4	
ARCH 430	Architectural Contexts: Place and Culture	4	
STAT 243Z	Elementary Statistics I	4	
	Credits	**12**	
	Total Credits	**45**	

Course	Title	Credits	Milestones
Fourth Year			
Fall			
ENVS 404	Internship: [Topic]	4	
Elective course		4	
	Credits	**8**	
Winter			
ENVS 411	Environmental Issues: [Topic] (Top Conservation Areas)	4	
BI 307	Forest Biology	4	
Elective course		4	
	Credits	**12**	
Spring			
ENVS 429	Environmental Leadership: [Topic]	4	
BI 374	Conservation Biology	4	
Elective course		4	
	Credits	**12**	
	Total Credits	**32**	