ENVIRONMENTAL SCIENCE, MINOR

Liberal Arts (Code 155-400)

Advisors: J. Boulter (Public Health and Environmental Studies), P. Ihinger (Geology and Environmental Science), H. Jol (Geography and Anthropology), E. Weiher (Biology).

This multidisciplinary liberal arts minor is created primarily for students with interests in environmental science and conservation of biological diversity. The minor emphasizes the study of environmental issues, ecology and conservation, and water and earth resources through application of concepts and methods from various disciplines. The minor is designed to complement a 36-credit standard major, e.g., Biology, Liberal Arts or Political Science. Students wishing to pursue a comprehensive major in environmental science should consider the Ecology and Environmental Biology Comprehensive Major in Biology, the Environmental Geography Comprehensive Major in Geography and Anthropology, the Environmental Science Comprehensive Major in Geology or the Environmental Public Health Comprehensive Major in the Public Health and Environmental Studies Program.

Code	Title	Credits
Minimum of 24 credits, with at least 11 credits from courses at the 300-level or above, including:		
Required:		
BIOL 180	Environmental Biology and Conservation	3
or GEOG 178	Planet Earth: Conservation of the Environment	
One or more of the following life sciences courses (min. 3 crs):		
BIOL 321	Ecology	3
BIOL 328	Conservation Biology	4
BIOL 338	Vegetation Ecology	4
BIOL 376	Aquatic Ecology	3-4
Two or more of the following physical science courses (min. 6 crs):		
CHEM 304	Environmental Chemistry	3
GEOG 304	Introduction to Geomorphology	4
GEOG 361	Environmental Hazards	3
GEOL 115	Environmental Geology	4
or GEOG 104	Planet Earth: The Physical Environment	
GEOL 304	Global Environmental Change	3
GEOL 308	Water Resources	3
GEOL 315	Hydrogeology I	4
GEOL 336	Introduction to Geochemistry	3
One or more of the following health, humanities, or social science courses (min. 3 crs):		
ECON 268	Environmental Economics	3
ENPH 110	Introduction to Environmental Health	3
ENV/GEOG 377	U.S. Environmental and Sustainability Policy	3
GEOG 270	Introduction to Urban and Regional Planning	3
GEOG/ENV 378	International Environmental Problems and Policy	3
PHIL 320	Environmental Ethics	3
Two or more of the following techniques courses (min. 6 crs):		
BIOL 383	Biostatistics	4
ENPH 441	Water and Wastewater	3
GEOG 280	Introduction to Cartography and Visualization	3
GEOG 335	Geographic Information Systems I	3
GEOG 336	Geospatial Field Methods	3
GEOG 338	Remote Sensing of the Environment	3
GEOG 350	Soils and the Environment	4
GEOG 363	Watershed Analysis	4
GEOG 364	Fluvial Processes and Landforms	4
GEOG 370	Quantitative Methods in Geography	3
A field capstone (min. 1 cr):		
BIOL 320	Studies in Tropical Environments	3
BIOL 329	Biological Field Experiences and Service-Learning Capstone	1-2
BIOL 490	Biological Field Studies	1-4
GEOL 303	Rocky Mountain Field Studies	3
GEOL 343	Geological Field Excursion	1-2
GEOL 470	Field Geology I	3

Note 1: Credits from other courses may also be applied as electives, pending advisor and college approval, when they focus specifically on environmental topics. This includes special topics, directed studies, independent study, and/or internships. Applicable environmental courses offered through International Study Abroad or National Student Exchange may also be applied with consent of an advisor.

Note 2: For students pursuing standard majors in Biology or Geography, a maximum of 12 credits from the major may be applied to this minor.

Program Learning Outcomes

Students completing this program will be expected to meet the following learning outcomes:

- Demonstrate ecological and physical science knowledge related to the conservation of biological diversity and natural resources.
- Use computational and technological skills to analyze environmental systems.
- Evaluate relationships between environmental science and society.
- Apply knowledge, skills, and values of environmental science to examine issues in a field setting.