ENVIRONMENTAL SCIENCE, MINOR

Liberal Arts (Code 155-400)

Advisors: P. Ihinger (Geology), P. Kleintjes Neff (Biology), K. Mumford, G. Running (Geography and Anthropology), E. Weiher (Biology).

This multidisciplinary liberal arts minor is created primarily for Arts and Sciences students with interests in the environmental sciences and conservation of biological diversity. The minor emphasizes the study of environmental issues and techniques, ecology and conservation, and water and earth resources, and is designed to complement a 36-credit standard major, e.g., Biology, Liberal Arts or Political Science, Liberal Arts. Comprehensive major environmental science programs include the Geography and Anthropology Department Environmental Geography Comprehensive Major, the Geology Department Environmental Science Comprehensive Major, the Biology Department Ecology and Environmental Biology Comprehensive Major, and the Environmental Public Health Comprehensive Major.

The minor consists of a minimum of 24 credits from the list of courses in categories below with at least 11 credits at the 300 level and higher. 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 studies, and/or internships. Applicable environmental courses offered through International Study Abroad or National Student Exchange may also be taken with consent of an advisor.

Twenty-four semester credits, including:

Required:

- BIOL 180 Environmental Biology and Conservation 3
- or GEOG 178 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 330 Population and Community Ecology 4
- BIOL 338 Vegetation Ecology 4
- BIOL 336 Terrestrial 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 The Physical Environment 3
- 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 Land Use Issues and Problems 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 Statistical Analysis of Biological Data 3
- ENPH 441 Water and Wastewater 3
- GEOG 280 Cartographic Design 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: For students pursuing standard majors in Biology or Geography, a maximum of 12 credits from the major may be applied to this minor.