

THE ENVIRONMENTAL SCIENCE MAJOR

Following are the courses you can select for your Environmental Science major. You may take the full Environmental Science major, or couple a Complementary major in Environmental Science with your primary (full) major. See below for the requirements of the [complementary major](#):

Full Major:

The full major requires a minimum of 51 credit hours selected according to the following: You take ALL courses in the ENVIRONMENTAL SCIENCE CORE (29 credit hours):

BIO 250	Human Environmental Biology	(3 Cr)	OR	GEO 260	Environmental Conservation	(3 Cr)
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and

BIO 171	Diversity of Life	(4 Cr)	BIO 172	Unity of Life	(4 Cr)
CHEM 121	General Chemistry I	(4 Cr)	CHEM 122	General Chemistry II	(4 Cr)
GEO 104	Geomorphology	(4 Cr)	GEO 215	Introduction to G.I.S.	(3 Cr)
PSY 201	Statistics	(3 Cr)			

You take ONE course satisfying the ENVIRONMENT AND SOCIETY elective:

GEO 321	Urban and Regional Planning	(3 Cr)
ECON 210	Environmental Economics and Policy	(3 Cr)
PSY 355	Environmental Psychology	(3 Cr)
	(or another approved new or topics course)	

You take ONE course satisfying the ENVIRONMENTAL MEANINGS AND VALUES elective:

GEO 475	Culture, Nature, Landscape	(3 Cr)
PHIL 230	Environmental Philosophy and Ethics	(3 Cr)
	(or another approved new or topics course)	

You take 14 Cr. of ENVIRONMENTAL SCIENCE ELECTIVES with the following stipulations:

- At least 11 credits at a level of 300 or higher
- one course with substantial field experience (F)

- one course with substantial laboratory experience (L)

BIO 350	Field Biology: Spring (F)	(4 Cr)	BIO 440	Ecology (F)	(4 Cr)
CHEM 221	Organic Chemistry I (L)	(4 Cr)	CHEM 222	Organic Chemistry II (L)	(4 Cr)
CHEM 230	Quantitative Analysis (L)	(4 Cr)			
ENVS 320	Environmental Modeling	(3 Cr)	ENVS 340	Water Res. Sci and Mgmt	(3 Cr)
GEO 385	(Environmental Field Study (F)	(4 Cr)	GEO 415	Advanced G.I.S. (L)	(3 Cr)
MET 240	Introduction to Climate Change	(3 Cr)	MET 440	Global Climate Change	(3 Cr)

You complete a CAPSTONE EXPERIENCE by accumulating 2 Cr. from the following: (each can be repeated):

ENVS 381	Co-op in Environmental Science	(1-2 Cr)
ENVS 386	Internship in Environmental Science	(1 Cr)
ENVS 495	Independent Research in Environmental Science	(1 Cr)
ENVS 499	Colloquium on Environmental Science and Management	(1 Cr)

Complimentary Major:

The complementary major requires a minimum of 32 Credit Hours selected according to the following:

- Take Bio 250 or Geo 260 and 11 additional credits from the Environmental Science Core (see above):
- Fulfill the Environment and Society Elective, as described above
- Fulfill the Environmental Meanings and Values Elective as described above
- Take at least 10 credit hours from the Environmental Science electives as described above; at least 7 of these must be at a level of 300 or higher
- Fulfill the Capstone Experience as described above

Environmental Science Courses:

ENVS 320: Environmental Modeling [3 cr.]

Introduction to the fundamental concepts of pollutant fate and transport as related to environmental quality. Topics cover a wide diversity of water quality issues such as conventional pollutants in rivers, eutrophication of lakes, and toxic organic chemicals and heavy metals in surface and groundwaters. Prerequisite: approval of the Chair of Environmental Science or the instructor of the course. Offered on demand.

ENVS 340: Water Resources Science and Management [3 cr.]

A study of the interaction between science, policy, and management of water resources. Topics include the hydrologic cycle, limnology, wetlands, water quality and water quality indicators, federal and state water regulations and standards, watershed management, water law, and restoration of aquatic ecosystems. Prerequisite: approval of the Chair of Environmental Science. Offered on demand.

ENVS 381: Co-op in Environmental Science [1-2 cr.]

Experience in environmental research or management with a cooperating employer. Prerequisites: Environmental Science major or minor and consent of the Chair of the Environmental Science program. Midterm and final written reports required. Credit hours assigned per College of Arts and Sciences guidelines. S/U grade only. May be repeated for additional credit.

ENVS 386: Internship in Environmental Science [1 cr.]

Summer professional experience in cooperating public or private organizations such as state environmental agencies or environmental consulting firms. Prerequisites: Environmental Science major or minor and consent of the Chair of the Environmental Science program. Final report required. S/U grade only. May be repeated for additional credit.

ENVS 495: Independent Research in Environmental Science [1 cr.]

Students work on a project of environmental and scientific merit under the guidance of a faculty sponsor. Prerequisites: Environmental Science major or minor, consent of the Chair of the Environmental Science program, and consent of the faculty sponsor. Final written report required. S/U grade only. May be repeated for additional credit.

ENVS 499: Colloquium on Environmental Science and Management [1 cr.]

This course contains (1) presentations by students, faculty, and guest speakers on current topics in environmental research, issues, policy, and management (2) reading and discussion of items of interest in the environmental literature, and (3) occasional workshops on topics such as public communication or technical and grant writing skills. Specific content will vary based on interests of students and faculty. S/U grade only. May be repeated for credit.