

# Environmental Science and Policy, B.A.

The Gulf oil spill. Global climate change. Drought and water supply. Fukushima. Each of these topics illustrates the continuing need for environmental professionals with training in the natural sciences and social sciences. The Environmental Science and Policy B.A. prepares students interested in environmental problem solving by linking an understanding of natural science with socioeconomic factors and public policy.

The curriculum combines a quantitative understanding of environmental science, chemistry, and biology with law, policy, and economics to provide a foundation for careers in environmental policy, resource management, education, environmental law, urban and environmental design, and related fields.

Students may be admitted to the Environmental Science and Policy major upon entering the university as freshmen, via change of major, or as transfer students from other colleges and universities. Information about change of major policies is available from the Physical Sciences student affairs office and the UCI Change of Major Criteria website (<http://changeofmajor.uci.edu/>).

The Environmental Science and Policy major provides students with a solid foundation to recognize the impacts of human activities on the environment, and in turn, the impacts of environmental change on society. Students are taught the mechanisms by which key institutions, policies, and regulations impact ecosystems and the physical environment.

Once the core course work is complete, students are encouraged to focus on a particular area within Environmental Science and Policy, and to choose electives that build a coherent core of knowledge. Focus areas include, but are not limited to, urban planning, public policy, sociology, economics, climatology, water resources, water quality, agriculture, air pollution, resource management, and atmospheric sciences.

**All students must meet the University Requirements (<http://catalogue.uci.edu/informationforadmittedstudents/requirementsforabachelorsdegree/>).**

A. Complete:	
EARTHSS 40A	Earth System Chemistry
or CHEM 1A-CHEM 1B-CHEM 1C-CHEM 1LC-CHEM 1LD	
or CHEM H2A-CHEM H2B-CHEM H2C-CHEM H2LA-CHEM H2LB-CHEM H2LC	
EARTHSS 40B	Earth System Biology
or BIO SCI 93-BIO SCI 94	
EARTHSS 40C	Earth System Physics
or PHYSICS 3A-PHYSICS 3B-PHYSICS 3C-PHYSICS 3LB-PHYSICS 3LC	
or PHYSICS 7C-PHYSICS 7D-PHYSICS 7E-PHYSICS 7LC-PHYSICS 7LD	
UPPP 8	Introduction to Environmental Analysis and Design
UPPP 5	Introduction to Urban Planning and Policy
STATS 7	Basic Statistics <sup>1</sup>
or STATS 8	
or SOCECOL 13	
or SOC SCI 10A-SOC SCI 10B-SOC SCI 10C	
EARTHSS 70A	Sustainable Energy Systems
EARTHSS 70B	Sustainable Food and Water Systems
EARTHSS 116	Introduction to Environmental Data Science
EARTHSS 192	Careers in Earth System Science
SOCECOL 10	Research Design
B. Select one of the following:	
SOCECOL 195	Field Study (4 units)
SOCECOL 195W	Field Study Writing Seminar <sup>2</sup>
SOCECOL 195B	Advanced Field Study <sup>2</sup>
SOCECOL 195CW	Advanced Field Study <sup>2</sup>
UC Washington, D.C. (UCDC) Academic Internship Program <sup>3</sup>	
UC Center Sacramento Academic Internship Program <sup>3</sup>	
C. Select three of the following:	
UPPP 42	The Green New Deal
UPPP 117	Environmental Justice

UPPP 131	Environmental Sustainability I
UPPP 132	Energy Justice and Just Transitions
UPPP 133	Environmental Law and Policy
UPPP 139	Water Resource Policy
UPPP 142	Environmental Hazards in an Urbanizing World
UPPP 145	Environmental Governance
UPPP 146	Principles of Economics for Planning and Policy
D. Seven 4-unit upper-division courses from the list below, with at least two courses from UPPP and two courses from EARTHSS:	
UPPP or EARTHSS courses (100-196)	
EARTHSS 199	Undergraduate Research
SOCECOL 199	Special Studies
SOCECOL H190A	Honors Research
or SOCECOL H190W	Honors Research
EARTHSS H199A	Honors Research in Earth System Science
or EARTHSS H199B	Honors Research in Earth System Science
or EARTHSS H199C	Honors Research in Earth System Science
Courses used to count toward degree requirements may not be used as electives. Up to two of the seven electives can be satisfied with 4-unit EARTHSS 199, EARTHSS H199A, EARTHSS H199B, EARTHSS H199C, and/or 4-unit SOCECOL 199 or SOCECOL H190W courses. For this requirement, SOCECOL 199 courses can be counted as UPPP electives.	

### Optional Geographic Information Systems (GIS) Specialization for Environmental Science and Policy majors

The optional GIS Specialization for Environmental Science and Policy majors is met by completing one of the following options as specified below:

<b>Option 1:</b>	
UPPP 120	Introduction to GIS for Planning and Policy
UPPP 125	Advanced Geographic Information Systems (GIS)
UPPP 127	Spatial Analysis Project
<b>Option 2:</b>	
EARTHSS 134	Fundamentals of GIS for Environmental Science
UPPP 127	Spatial Analysis Project
Courses taken for the GIS Specialization can be used toward the Environmental Science and Policy major. Courses must be taken for a letter grade in order to count for the GIS Specialization.	
For students double majoring in Urban Studies and Environmental Science and Policy, the optional GIS Specialization can only be applied to one major.	

- <sup>1</sup> Students who score a minimum of 3 on the AP Statistics exam do not have to take STATS 7 or its equivalents.
- <sup>2</sup> Site must be listed within one of the following sections of the Field Study Catalog (<https://fieldstudy.soceco.uci.edu/pages/field-study-catalog/>): Environment, Planning, or Public Policy. For more information, visit the Social Ecology Field Study website (<https://fieldstudy.soceco.uci.edu/>).
- <sup>3</sup> See Field Study website for more information. Specific course work is required - 12 units minimum.

NOTE: This major is open to all students. However, courses being applied to another major cannot also be counted as upper-division electives for the B.A. in Environmental Science and Policy.

Freshman		
Fall	Winter	Spring
EARTHSS 40A	EARTHSS 40B	EARTHSS 40C
UPPP 8	STATS 7	UPPP 5
General Education/Elective	General Education/Elective	General Education/Elective
	General Education/Elective	General Education/Elective
Sophomore		
Fall	Winter	Spring
SOCECOL 10	EARTHSS 70B	EARTHSS 70A
General Education/Elective	General Education/Elective	General Education/Elective
Elective	General Education/Elective	General Education/Elective
Elective	Elective	

<b>Junior</b>		
<b>Fall</b>	<b>Winter</b>	<b>Spring</b>
UPPP 145	SOCECOL 195	UPPP 133
EARTHSS 116	EARTHSS upper-division elective	UPPP upper-division elective
EARTHSS 192	Elective	Elective
Elective	Elective	Elective
<b>Senior</b>		
<b>Fall</b>	<b>Winter</b>	<b>Spring</b>
Upper-division elective	UPPP 146	UPPP upper-division elective
Upper-division elective	Upper-division elective	EARTHSS upper-division elective
General Education/Elective	Elective	Elective
Elective	Elective	Elective

Environmental Science and Policy students may complete either the Earth System Science Honors Program or the Social Ecology Honors Program.

In a year-long honors course sequence, Environmental Science and Policy students admitted into the Environmental Science and Policy honors program pursue research with faculty in the Earth Systems Science or Urban Planning and Public Policy Departments, and prepare a written thesis of their work. Visit the Earth System Science honors program website and the Social Ecology Honors Program (<https://students.soceco.uci.edu/pages/social-ecology-honors-program/>) for more information.

The Environmental Science and Policy major provides a strong interdisciplinary foundation for students to pursue a range of public and private sector positions, including environmental management, resource management, environmental law, environmental consulting, work with nonprofit organizations and non-governmental agencies, and related areas. Students are poised to pursue graduate studies (professional Masters degree or Ph.D.) in the following fields: environmental science, environmental studies, public policy, public administration, urban and regional planning, geography and related fields.

- Earth and Atmospheric Sciences, Minor
- Earth System Science, B.S.
- Earth System Science, Ph.D.