

ENVIRONMENTAL POLICY ANALYSIS & PLANNING, BACHELOR OF SCIENCE

College of Agricultural & Environmental Sciences

The major in Environmental Policy Analysis & Planning develops skills for designing and assessing sustainable policies for environmental quality and natural resource management.

Any student in good standing is eligible to transfer to the major; to do so, please see the staff advisor, Destiny Akins, in 2134 Wickson Hall, or the lead faculty advisor, Prof. Gwen Arnold, in 2144 Wickson Hall.

The Program

This major provides students with a strong background in policy analysis, including the evaluation of policy alternatives and the study of factors affecting policy formulation and implementation. Key components of this interdisciplinary training include a general background in the natural sciences relevant to environmental policy, economics, political science, statistics, and research methodology to quantitatively analyze environmental problems and policy options. In addition, students are encouraged to develop substantive knowledge in a specific field of environmental policy, such as urban and regional planning, water policy, transportation and energy, climate policy, or conservation management.

Careers

Environmental policy analysis and planning graduates are prepared for employment in environmental, natural resource, energy, and transportation focused public agencies, consulting firms, non-governmental organizations, and businesses, or as legislative aides for elected representatives. The major is also excellent preparation for students who want to go on to graduate work in law, planning, public policy, political science, economics, or business.

Major Advisor

G. Arnold (Environmental Science & Policy)

The major requirements below are in addition to meeting University Degree Requirements (<https://catalog.ucdavis.edu/undergraduate-education/university-degree-requirements/>) & College Degree Requirements (<https://catalog.ucdavis.edu/undergraduate-education/college-degree-requirements/>); unless otherwise noted. The minimum number of units required for the Environmental Policy Analysis & Planning Bachelor of Science is 105.

Code	Title	Units
English Composition & Communication Requirement		
Choose one:		0-4
UWP 101	Advanced Composition	
or UWP 101V	Advanced Composition	
or UWP 101Y	Advanced Composition	

OR any course from the UWP 102 or UWP 104 series. (<https://catalog.ucdavis.edu/courses-subject-code/uwp/>)

UWP 102G or UWP 104A or UWP 104AV or UWP 104AY or UWP 104B recommended.

Passing the Upper Division English Composition exam.

Communication		4
Choose one:		
CMN 001	Introduction to Public Speaking	
or CMN 001V	Introduction to Public Speaking	
CMN 003	Interpersonal Communication Competence	
or CMN 003V	Interpersonal Communication Competence	
or CMN 003Y	Interpersonal Communication Competence	
DRA 010	Introduction to Performance & Digital Media	
English Composition & Communication Requirement Subtotal		4-8
Preparatory Subject Matter		
<i>Biological Science</i>		
Choose one:		4-5
BIS 002A	Introduction to Biology: Essentials of Life on Earth	
BIS 002B	Introduction to Biology: Principles of Ecology & Evolution	
BIS 010	Everyday Biology	
<i>Chemistry</i>		
CHE 002A	General Chemistry	4-5
or CHE 010	Concept of Chemistry	
<i>Physics</i>		
PHY 001A	Principles of Physics	3
<i>Second Quarter Natural Science</i>		
Choose one:		3-5
BIS 002B	Introduction to Biology: Principles of Ecology & Evolution	
BIS 002C	Introduction to Biology: Biodiversity & the Tree of Life	
CHE 002B	General Chemistry	
PHY 001B	Principles of Physics	
Cannot use BIS 002B to fulfill both the biological sciences requirement and the second quarter natural science requirement at the same time		
<i>Introduction to Data Analytics</i>		
Choose one:		3-4
CMN/SOC/POL/ PSC 012Y	Data Visualization in the Social Sciences	
PLS 021	Application of Computers in Technology	
or PLS 021V	Application of Computers in Technology	
<i>Economics</i>		
ECN 001A	Principles of Microeconomics	4
or ECN 001AV	Principles of Microeconomics	
or ECN 001AY	Principles of Microeconomics	
ECN 001B	Principles of Macroeconomics	4
or ECN 001BV	Principles of Macroeconomics	
<i>Environmental Science</i>		
Choose one:		3-4
ANS 001	Domestic Animals & People	
ATM 060	Introduction to Atmospheric Science	
AVS 013	Birds, Humans & the Environment	
EPS 001		
GEL 001	The Earth (Discontinued for fall 2026) **	

HYD/SAS 010	Water, Power, Society	ARE 100A	Intermediate Microeconomics: Theory of Production & Consumption
PLS/SAS 012	Plants & Society	ECN 100A	Intermediate Micro Theory: Consumer & Producer Theory
SSC 010	Soils in Our Environment	or ECN 100AV	Intermediate Micro Theory: Consumer & Producer Theory
WFC 051	Introduction to Conservation Biology		
<i>Environmental Science & Policy</i>			
ESP 001	Environmental Analysis		<i>Environmental Data Science</i>
<i>Mathematics</i>			
Choose one:		Choose one:	
MAT 016A	(Discontinued for spring 2025) **	ESP 106	Environmental Data Science
MAT 017A	Calculus for Biology & Medicine	LED/ABT 150/	Introduction to Geographic Information
MAT 019A	Calculus for Data-Driven Applications	LDA 150 DISCONTINUED FOR WINTER 2026 **	
MAT 021A	Calculus		
Choose one:			<i>Resource Economics</i>
MAT 016B	(Discontinued for spring 2025) **	Choose one:	
MAT 017B	Calculus for Biology & Medicine	ARE 176	Environmental Economics
MAT 019B	Calculus for Data-Driven Applications	ECN 125	Energy Economics
MAT 021B	Calculus	ESP/ARE 175	Natural Resource Economics
<i>Political Science</i>			<i>Recommended, Not Required</i>
POL 001	American National Government	ABT 181N	Concepts & Methods in Geographic Information Systems
or POL 001Y	American National Government	ABT/HYD 182	Environmental Analysis Using GIS
<i>Statistics</i>		ESM 185	Aerial Photo Interpretation & Remote Sensing
STA 013	Elementary Statistics	ESM 186	Environmental Remote Sensing
or STA 013Y	Elementary Statistics		<i>Depth Subject Matter Subtotal</i>
or STA 032	Gateway to Statistical Data Science		45-46
Preparatory Subject Matter Subtotal			<i>Areas of Specialization</i>
Depth Subject Matter			Students must choose courses in the Areas of Specialization that have not been taken in the Depth Subject Matter.
Students must take these units on a letter grade basis, and must attain an overall grade point average of 2.000 or higher in the Depth Subject Matter courses.			
<i>Environmental Science & Policy</i>	29	Choose one:	10-17
<i>Evaluation & Analysis</i>		City & Regional Planning (p. 2)	
ESP 110	Principles of Environmental Science	Climate Change Policy (p. 3)	
ESP 160	The Policy Process	Conservation Management (p. 3)	
ESP 168A	Methods of Environmental Policy Analysis	Energy & Transportation Planning (p. 3)	
ESP 168B	Methods of Environmental Policy Evaluation	Environmental Policy & Politics (p. 4)	
		Integrative Policy (p. 4)	
		Water Management (p. 4)	
<i>Environmental Law</i>			<i>Areas of Specialization Subtotal</i>
ESP 161	Environmental Law		10-17
<i>Research Design</i>			Total Units
ESP 178	Applied Research Methods		105-125
<i>Environmental Impact Assessment</i>			
ESP 179	Environmental Impact Assessment		
<i>Statistics</i>			
Choose one:			
SOC 106	Intermediate Social Statistics	Code	Title
STA 100	Applied Statistics for Biological Sciences		Units
STA 103	Applied Statistics for Business & Economics	<i>Environmental Science & Policy</i>	
STA 108	Applied Statistical Methods: Regression Analysis	ESP 171	Urban & Regional Planning
<i>Microeconomics</i>		ESP 172	Public Lands Management
Choose one:		<i>Choose one</i>	
		ECI 165	Transportation Policy
		ESP/ECI 163	Energy & Environmental Aspects of Transportation
		<i>Choose one:</i>	2-5
		AHI 168	Great Cities
		CRD 149	Community Development Perspectives on Environmental Justice

** Course(s) discontinued; see your advisor for course options.

City & Regional Planning Specialization

Code	Title	Units
Environmental Science & Policy		
ESP 171	Urban & Regional Planning	4
ESP 172	Public Lands Management	4
<i>Choose one</i>		
ECI 165	Transportation Policy	
ESP/ECI 163	Energy & Environmental Aspects of Transportation	
<i>Choose one:</i>		
AHI 168	Great Cities	
CRD 149	Community Development Perspectives on Environmental Justice	

CRD 152	Community Development
CRD 156	Community Economic Development
CRD 171	Housing & Social Policy
ESP 173	Land Use & Growth Controls
ESP 174	Environmental Justice Policy & Practice
ETX 110	Toxic Tragedies & Their Impact on Society
POL 100	Local Government & Politics

Total Units **10-13**

Climate Change Policy Specialization

Code	Title	Units
Environmental Science & Policy		
ESP 165	Climate Policy	3
Choose one:		4
ARE 176	Environmental Economics	
ECN 125	Energy Economics	
ESP/ECI 163	Energy & Environmental Aspects of Transportation	
ESP 167	Energy Policy	
ESP 171	Urban & Regional Planning	
ESP 174	Environmental Justice Policy & Practice	
Choose two:		6-8
ATM 116	Modern Climate Change	
ATM 133	Biometeorology	
ATM 160	Introduction to Atmospheric Chemistry	
ESM 131	Air as a Resource	
ESP 116N/ GEL 116N DISCONTINUED FOR FALL 2026 or EPS 116	Oceanography (Discontinued for fall 2026)	
SAS 025 or SAS 025V	Global Climate Change: Convergence of Biological, Geophysical, & Social Sciences	
Total Units 13-15		

Code	Title	Units
Choose two:		6-8
ESP 166	Ocean & Coastal Policy	
ESP 169	Water Policy & Politics	
ESP 170	Conservation Biology Policy	
ESP 172	Public Lands Management	
ESP 174	Environmental Justice Policy & Practice	
Choose one:		3-5
ENH 160	Restoration Ecology	
ESM 141	Role of Fire in Natural Ecosystems	
ESM 144	Trees & Forests	
ESP 100	General Ecology	
ESP 121	Population Ecology	
ESP 124	Marine & Coastal Field Ecology	
ESP 127	Plant Conservation Biology	
EVE 115	Marine Ecology	

EVE 138	Ecology of Tropical Latitudes (Discontinued for winter 2026) **
WFC 126	Conservation in Working Landscapes
WFC 151	Wildlife Ecology
WFC 152	Ecology of Human-Wildlife Conflicts
WFC 154	Conservation Biology
WFC 155	Wildlife Space Use & Habitat Conservation
Choose one:	4
AAS 176	The Politics of Resources
AAS 177	Politics of Life in Africa
ARE/ECN 115A	Economic Development
ANT 103	Indigenous Peoples & Natural Resource Conservation (Discontinued for spring 2026) **
ASA 114	Asian Diasporas
CHI 112	Globalization, Transnational Migration, & Chicana/o & Latina/o Communities
CRD 153A	International Community Development: Asia
CRD 153B	International Community Development: Europe
CRD 153C	International Community Development: Africa
IRE/SOC 104	The Political Economy of International Migration
SOC 145A	Sociology of Third World Development

Total Units **13-17**

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Course(s) discontinued; see your advisor for course options.

Energy & Transportation Planning Specialization

Code	Title	Units
Choose one:		3-4
ECN 125	Energy Economics	
ENG 106	Engineering Economics	
ESP/ARE 175	Natural Resource Economics	
Choose two:		7-8
ECI 165	Transportation Policy	
ESP/ECI 163	Energy & Environmental Aspects of Transportation	
ESP 167	Energy Policy	
ESP 172	Public Lands Management	
ESP 174	Environmental Justice Policy & Practice	
Choose one:		3-4
ATM 116	Modern Climate Change	
ECI 123	Urban Systems & Sustainability	
ENG 160/ PHY 160 DISCONTINUED (Discontinued for winter 2026) **	Environmental Physics & Society	
ESM 131	Air as a Resource	

GEL 130	Non-Renewable Natural Resources (Discontinued for winter 2026) **																																																																																											
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Water Management Specialization

Code	Title	Units
Choose two:		
ESP 166	Ocean & Coastal Policy	6-7
ESP 169	Water Policy & Politics	
ESP 174	Environmental Justice Policy & Practice	
HYD 150	Water Law	
Choose two:		6-10
ESM 100	Introduction to Water Science	
ESM 121	Water Science & Management	
ESM 125	River Conservation	
ESP 151	Limnology	
ESP 155	Wetland Ecology (Discontinued for winter 2026) **	
GEL 134	Environmental Geology & Land Use Planning (Discontinued for fall 2026) **	
or EPS 134		
HYD 141	Physical Hydrology	
HYD 143	Ecohydrology	
SSC 118	Soils in Land Use & the Environment	
WFC 120	Biology & Conservation of Fishes	
BIS 124	Coastal Marine Research	
ESP 116N/ GEL 116N DISCONT	Oceanography (Discontinued for fall 2026) **	
or EPS 116		
ESP 124	Marine & Coastal Field Ecology	
ESP 150C/ GEL 150C DISCONT	Biological Oceanography (ESP 150C Discontinued for fall 2026)	
or EPS 150C		
ESP 152	Coastal Oceanography	
Total Units	12-17	

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Course(s) discontinued; see your advisor for course options.

Integrative Policy Specialization

Code	Title	Units
Students choosing this individualized track must consult with a faculty advisor to identify an area of emphasis within this track and to select four upper division courses with a common theme. Possible areas of emphasis are marine policy, pollutants in the environment, planning in the presence of environmental hazards, sustainable development, or environmental and natural resource economics. If you are considering this track, please contact the major advisor as soon as possible.		
Total Units	12-16	