# ENVIRONMENTAL POLICY/ ENVIRONMENTAL SCIENCE AND SUSTAINABILITY (BA/ MS)

Well-designed public policies are critical in maintaining and restoring a healthy environment. Public policies influence air and water quality, land use, biodiversity, and public health and shape crucial efforts to fight climate change. Our environmental policy program prepares students to craft and implement public policies that promote ecological conservation, environmental justice, and innovation toward a green economy.

With our Accelerated Bachelor's/Master's Program, Loyola SES students can boost their professional credentials and save time and money by completing an undergraduate degree along with a master of science in environmental science and sustainability degree in as little as five years. The economic and academic benefits are substantial.

# **CURRICULUM**

Environmental Policy students complete coursework spanning a variety of disciplines pertinent to the understanding of environmental issues.

Code	Title	Hours
Core Curriculum		
ENVS 137	Foundations of Environmental Science I	3
ENVS 237	Foundations of Environmental Science II	3
ENVS 238	Foundations of Environmental Science Lab	1
ENVS 200	Environmental Careers and Professional Skills	1
ENVS 203	Environmental Statistics	3
ENVS 280	Principles of Ecology	3
ENVS 286	Principles of Ecology Lab	1
ENVS 310	Introduction to Environmental Law & Policy	3
PLSC 101	American Politics	3
PLSC 392	Environmental Politics	3
Justice and Ethic	es Choice	
Select one of the	following:	3
ENVS 284	Environmental Justice	
PHIL 287	Environmental Ethics	
THEO 204	Religious Ethics and the Ecological Crisis	
Economics Choic	e	
Select one of the	following:	3
ENVS 335	Ecological Economics	3
or ECON 328	Environmental Economics	
Engaged Learnin	g Choice	
Select one of the	following:	3
ENVS 226	Science & Conservation of Freshwater Ecosystem	าร
ENVS 267	Bird Conservation and Ecology	
ENVS 369	Field Ornithology	
ENVS 273	Energy and The Environment	
ENVS 283	Environmental Sustainability	
ENVS 340	Natural History of Belize	

ENVS 345	Conservation and Sustainability of Neotropical Ecosystems	
ENVS 350A	Solutions to Environmental Problems: Water	
ENVS 350B	Solutions to Environmental Problems: Biogas	
ENVS 350C	Solutions to Environmental Problems: Climate	
2	Action	
ENVS 350F	Solutions to Environmental Problems: Food	
	Systems	
ENVS 391	Environmental Research	
ENVS 395	Environmental Internship	
Capstone Choice		2
Select one of the	5	3
ENVS 390	Integrative Seminar	
ENVS 391C	Independent Environmental Research (Capstone)	
ENVS 395C	Environmental Internship (Capstone)	10
Electives	ele etime e ete menice le elevre	18
	elective categories below	
Total Hours		57
BA Electives		
Code	Title	Hours
Society, Ethics, a	and Justice	
Select one of the	e following:	3
ENVS 204	Gender, Health & Environment	
ENVS 279	Climate and History	
ENVS 284	Environmental Justice	
ENVS 297	North American Environmental History	
ENVS 298	Special Topics (with SES approval)	
ENVS 338	Climate Change and Human Health	
ENVS 350A	Solutions to Environmental Problems: Water	
ENVS 350B	Solutions to Environmental Problems: Biogas	
ENVS 350C	Solutions to Environmental Problems: Climate Action	
ENVS 350F	Solutions to Environmental Problems: Food Systems	
ENVS 383	Human Dimensions of Conservation	
ENVS 391	Environmental Research (with SES approval)	
ENVS 395	Environmental Internship (with SES approval)	
ENVS 398	Special Topics (with SES approval)	
ENVS 399	Directed Readings (with SES approval)	
COMM 101	Public Speaking & Critical Thinking	
COMM 260	Environmental Journalism	
COMM 277	Organizational Communication	
COMM 306	Environmental Advocacy	
COMM 322	Guerilla Media	
COMM 379	Digital Sustainability	
ENGL 288	Nature in Literature	
PHIL 287	Environmental Ethics	
PSYC 277	Environmental Psychology	
0001.006	Colonea Tachnology & Coolaty	

Science, Technology, & Society

The Sociology and Politics of Food

**Global Inequalities** 

**Environmental Sociology** 

SOCL 226

SOCL 252

SOCL 272

SOCL 276

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SOCL 278	Global Health		С
THEO 204	Religious Ethics and the Ecological Crisis		N
THEO 344	Theology and Ecology		S
Policy, Economic	cs, and Resource Management		S
Select two of the	e following:	6	S
ENVS 298	Special Topics (with SES approval)		S
ENVS 300	Introduction to Public Health		S
ENVS 311	Natural Resources and Land Use Law & Policy		Envi
ENVS 312	Water Law & Policy		Sele
ENVS 313	Energy Law & Policy		С
ENVS 327	Food Systems Analysis		E
ENVS 332	Industrial Ecology		E
ENVS 333	Introduction to the Circular Economy		E
ENVS 335	Ecological Economics		В
ENVS 336	Design for Circular & Sustainable Business		E
ENVS 338	Climate Change and Human Health		E
ENVS 363	Sustainable Business Management		E
ENVS 364	Sustainability Management in the Global Context		E
ENVS 383	Human Dimensions of Conservation		E
ENVS 384	Conservation Economics		E
ENVS 389	Ecological Risk Assessment		E
ENVS 391	Environmental Research (with SES approval)		E
ENVS 395	Environmental Internship (with SES approval)		E
ENVS 398	Special Topics (with SES approval)		E
ENVS 399	Directed Readings (with SES approval)		E
ECON 328	Environmental Economics		E
GLST 305	Globalization and Environmental Sustainability		E
MGMT 201	Managing People and Organizations		E
PLSC 354	Global Environmental Politics		E
Methods and An	alysis		E
Select one of the	e following:	3	E
COMM 260	Environmental Journalism		E
ENVS 298	Special Topics (with SES approval)		E
ENVS 327	Food Systems Analysis		E
ENVS 352	Sustainability Assessment & Reporting I		E
ENVS 353	Sustainability Assessment & Reporting II		E
ENVS 354	Sustainability Plan Development & Reporting		E
ENVS 380	Introduction to Geographic Information Systems		E
ENVS 381	Advanced GIS Applications		E
ENVS 382	Remote Sensing		E
ENVS 384	Conservation Economics		E
ENVS 388	Applied Environmental Statistics		E
ENVS 389	Ecological Risk Assessment		E
ENVS 391	Environmental Research		E
ENVS 395	Environmental Internship		-
ENVS 398	Special Topics (with SES approval)		E
ENVS 399	Directed Readings		E
ANTH 317	Ethnographic Methods		E
BIOL 335	Intro to Biostatistics		E
COMM 231	Conflict Management and Communication		L
COMM 234	Interviewing for Communication		E
COMM 277	Organizational Communication		E

COMM 363	Research Methods in Advertising/Public Relations	
MARK 320	Marketing for Environmental Sustainability	
SOCL 206	Principles of Social Research	
SOCL 301	Statistics for Social Research	
SOCL 302	Qualitative Research	
STAT 203	Introduction to Probability & Statistics	
STAT 303	SAS Programming & Applied Statistics	
Environmental Ele	ectives	
Select two of the	following:	6
COMM 260	Environmental Journalism	
ENVS 204	Gender, Health & Environment	
ENVS 207	Plants and Civilization	
ENVS 215 /	Ornithology	
BIOL 215		
ENVS 218	Biodiversity & Biogeography	
ENVS 223	Soil Ecology	
ENVS 224	Climate & Climate Change	
ENVS 226	Science & Conservation of Freshwater Ecosystems	
ENVS 227R	Ecology of the Mediterranean Sea	
ENVS 267	Bird Conservation and Ecology	
ENVS 273	Energy and The Environment	
ENVS 274	Chemistry of the Environment	
ENVS 278	Hydrology	
ENVS 279	Climate and History	
ENVS 283	Environmental Sustainability	
ENVS 297	North American Environmental History	
ENVS 298	Special Topics (with SES approval)	
ENVS 300	Introduction to Public Health	
ENVS 301	Environmental Health	
ENVS 303	Introduction to Epidemiology	
ENVS 311	Natural Resources and Land Use Law & Policy	
ENVS 312	Water Law & Policy	
ENVS 313	Energy Law & Policy	
ENVS 319	Winter Ecology	
ENVS 320	Conservation Biology	
ENVS 322	Invasive Species	
ENVS 323	Environmental Microbiology	
ENVS 325	Sustainable Agriculture	
ENVS 326	Agroecosystems	
ENVS 327	Food Systems Analysis	
ENVS 330	Restoration Ecology	
ENVS 338	Climate Change and Human Health	
ENVS 340	Natural History of Belize	
ENVS 345	Conservation and Sustainability of Neotropical Ecosystems	
ENVS 350A	Solutions to Environmental Problems: Water	
ENVS 350B	Solutions to Environmental Problems: Biogas	
ENVS 350C	Solutions to Environmental Problems: Climate	
ENVS 350F	Solutions to Environmental Problems: Food Systems	
ENVS 351	Introduction to Sustainability Concepts & Impacts	
ENVS 351	Sustainability Assessment & Reporting I	
	oustainability Assessment & hepotting i	

T	otal Hours		18
	BIOL, CHEM, P	HYS 300-level courses (with SES approval)	
	ANTH 303	People and Conservation	
	ANTH 104	The Human Ecological Footprint	
	ENVS 399	Directed Readings (with SES approval)	
	ENVS 398	Special Topics (with SES approval)	
	ENVS 395	Environmental Internship (with SES approval)	
	ENVS 391	Environmental Research (with SES approval)	
	ENVS 389	Ecological Risk Assessment	
	ENVS 388	Applied Environmental Statistics	
	ENVS 387	Principles of Ecotoxicology	
	ENVS 385	Introduction to Global Health	
	ENVS 381	Advanced GIS Applications	
	ENVS 380	Introduction to Geographic Information Systems	
	ENVS 369	Field Ornithology	
	ENVS 354	Sustainability Plan Development & Reporting	
	ENVS 353	Sustainability Assessment & Reporting II	

### Year 5

The Environmental Science and Sustainability MS has the following requirements:

Code	Title	Hours
<b>Required Cours</b>	es	6
ENVS 401	Sustainable Systems - Natural Science Perspectives	
ENVS 402	Sustainable Systems - Social Science Perspect	ives
Completion of C	One of Four Concentrations:	9-12
Environmental L	_aw & Policy	
ENVS 410	Introduction to Environmental Law & Policy	
ENVS 411	Natural Resources and Land Use Law & Policy	
ENVS 412	Water Law & Policy	
ENVS 413	Energy Law & Policy	
Geographic Info	ormation Systems	
ENVS 480	Introduction to Geographic Information System	IS
ENVS 481	Advanced GIS Applications	
ENVS 482	Remote Sensing	
Sustainable Ass	sessment and Planning	
ENVS 451	Introduction to Sustainability Concepts & Impa	cts
ENVS 452	Sustainability Assessment & Reporting I	
ENVS 453	Sustainability Assessment & Reporting II	
ENVS 454	Sustainability Plan Development & Reporting	
Sustainable Bus	siness	
ENVS 433	Introduction to the Circular Economy	
ENVS 435	Ecological Economics	
ENVS 436	Design for Circular & Sustainable Business	
ENVS 463	Sustainable Business Management	
Electives (for a	total of 30 credit hours with required courses)	12-15
Natural Science	and Quantitative Courses	6
Students will ta electives.	ke at least two courses from the following list of	
ENVS 420	Conservation Biology	
ENVS 422	Invasive Species	

ENVS 425	Sustainable Agriculture
ENVS 425	Agroecosystems
ENVS 420	Food Systems Analysis
ENVS 430	Restoration Ecology
ENVS 435	Ecological Economics
ENVS 435	Climate Change and Human Health
ENVS 458	5
	Introduction to Sustainability Concepts & Impacts
ENVS 452	Sustainability Assessment & Reporting I
ENVS 453	Sustainability Assessment & Reporting II
ENVS 480	Introduction to Geographic Information Systems
ENVS 481	Advanced GIS Applications
ENVS 482	Remote Sensing
ENVS 484	Conservation Economics
ENVS 487	Principles of Ecotoxicology
ENVS 488	Applied Environmental Statistics
ENVS 489	Ecological Risk Assessment
ENVS 491	Independent Environmental Research (upon approval)
ENVS 498	Special Topics (upon approval)
ENVS 498L	Special Topics with Lab (upon approval)
ENVS 499	Directed Readings (upon approval)
BIOL 495	Special Topics (Topic: Metagenomics)
BIOL 416	Limnology Lec/Lab
BIOL 418	Aquatic Insects Lecture & Laboratory
BIOL 470	Biostats & Exp Design Lec/Lab
MPBH 401	Environmental Health
MPBH 402	Public Health Practice and Management
MPBH 403	Introduction to Epidemiology
MPBH 404	Biostatistics for Health and Biological Science
MPBH 407	Public Health Policy: Concepts and Practice
MPBH 409	Biostatistics I
MPBH 412	Intro to Statistical Computing for Public Health
MPBH 414	Introduction to Global Health
MPBH 421	Biostatistics II
MPBH 423	Intermediate Epidemiology
MPP 401	Analytical Tools in Public Policy
MPP 402	Cost Benefit Analysis
MPP 403	Public Budget and Finance
MPP 405	Statistical Methods & Analysis for Public Policy I
MPP 406	Statistical Methods & Analysis Public Policy II
MPP 408	Political Feasibility Analysis
SOCL 414	Statistical Methods Analysis I
SOCL 415	Statistical Methods of Analysis II
STAT 403	SAS Program & Applied Statistics
STAT 407	Statistical Design
STAT 436	Topics in Biostatistics
	ety and Business Courses
	ose from courses focused on society's interaction
with the environm	nent: environmental law and policy, sustainable
	ement, and fostering sustainable societies.
ENVS 410	Introduction to Environmental Law & Policy
ENVS 411	Natural Resources and Land Use Law & Policy
ENVS 412	Water Law & Policy

ENVS 413	Energy Law & Policy
ENVS 432	Industrial Ecology
ENVS 433	Introduction to the Circular Economy
ENVS 436	Design for Circular & Sustainable Business
ENVS 454	Sustainability Plan Development & Reporting
ENVS 463	Sustainable Business Management
ENVS 464	Sustainability Management in the Global Context
ENVS 483	Human Dimensions of Conservation
ENVS 491	Independent Environmental Research (upon approval)
ENVS 498	Special Topics (upon approval)
ENVS 499	Directed Readings (upon approval)
MPBH 407	Public Health Policy: Concepts and Practice
MPP 400	Policy Design and Analysis
MPP 404	Public Policy Process
PSYC 460	Social Psychological Theory
PSYC 461	Attitude and Attitude Change
PSYC 486	Methods of Program Evaluation
SOCL 412	Qualitative Methods in Social Research
SOCL 446	Knowledge, Power & Expertise
SOCL 463	Sociology & Natural Environment

## School of Environmental Sustainability Graduation Requirements

All SES students are required to complete a foreign language requirement and a writing intensive requirement. The SES language requirement can be fulfilled by 1) earning college credit at the 102-level or above; or 2) demonstrating proficiency via the SES foreign language proficiency examination. The SES writing intensive requirement is fulfilled by successfully completing two Loyola WI courses (max of one per semester). Writing intensive courses have a "W" in the section number.

# Additional Undergraduate Graduation Requirements

All Undergraduate students are required to complete the University Core, at least one Engaged Learning course, and UNIV 101. SCPS students are not required to take UNIV 101. Nursing students in the Accelerated BSN program are not required to take core or UNIV 101. You can find more information in the University Requirements (https://catalog.luc.edu/undergraduate/university-requirements/) area.

# **SES Shared Learning Outcomes**

All SES majors share the following Program Learning Objectives, in addition to their unique major-specific Program Learning Objectives:

- 1. Articulate the foundational principles of natural and social sciences and humanities essential to solving environmental problems.
- 2. Critically evaluate the accuracy and credibility of information relating to environmental topics.
- 3. Employ knowledge and skills to design and implement solutions that contribute to a just and sustainable world.
- 4. Exemplify the values of environmental and social justice through actions to care for our common home and one another.