ENVIRONMENTAL SCIENCE/ PUBLIC POLICY (BS/MPP)

From ecological restoration to water conservation, from climate change adaptation to storm water management, the challenge is clear. The need for individuals with knowledge and skills relevant to both environmental science and public policy has never been greater.

The SES dual degree programs with the Master of Public Policy (MPP) prepare graduates to meet these challenges effectively in careers in government, non-profit organizations, and businesses.

Undergraduate students take four graduate courses in their senior year, two each semester. In their fifth, graduate only year they will complete the remaining MPP credit hours.

There are eight 3-credit required MPP courses and a one-credit required Professional Development class. Students also take 12 elective credits where they develop a concentration in a particular field, such as environmental policy. For these electives, students can select from graduate courses in the School of Environmental sustainability.

Related Programs

Major

- Environmental Science (BS) (https://catalog.luc.edu/undergraduate/environmental-sustainability/environmental-science/environmental-science-bs/)

Combined

- Environmental Policy/Public Policy (BA/MPP) (https://catalog.luc.edu/undergraduate/accelerated-bachelors-masters-program/environmental-policy-public-policy-ba-mpp/)
- Environmental Studies/Public Policy (BA/MPP) (https://catalog.luc.edu/undergraduate/accelerated-bachelors-masters-program/environmental-studies-public-policy-ba-mpp/)

Curriculum

These dual degree programs begin with a broad, interdisciplinary undergraduate curriculum drawing on courses in the natural sciences, social sciences, humanities, and business.

Undergraduate service-learning, internships, research, and study abroad provide students with rich, experiential learning opportunities. Students then develop more in-depth understanding of policy issues and the professional skills necessary to influence policy outcomes as part of their graduate studies.

Environmental Science students complete coursework that includes both a heavy dose of basic science requirements and courses spanning a variety of disciplines pertinent to understanding the context in which environmental challenges reside.

The BS in Environmental Science can be taken without a concentration [66 credit hours] or with a chosen concentration in Conservation and Restoration Ecology [68 credit hours]; Environmental Health [69 credit hours]; or Food Systems and Sustainable Agriculture [66 credit hours]. Four courses (12 credit hours) can be taken at the 400-level in a student's senior year to count toward both undergraduate and graduate degree programs.

Code	Title	Hours
BS Requirements		
Core Curriculum		
BIOL 101 & BIOL 111	General Biology I and General Biology I Lab	4
BIOL 102 & BIOL 112	General Biology II and General Biology II Lab	4
CHEM 160	Chemical Structure and Properties	3
CHEM 161	Chemical Structure and Properties Laboratory	1
ENVS 137	Foundations of Environmental Science I	3
ENVS 200	Environmental Careers and Professional Skills	1
ENVS 203	Environmental Statistics	3
ENVS 274	Chemistry of the Natural Environment	3
ENVS 275	Chemistry of the Environment Lab	1
ENVS 276	Chemistry of Environmental Pollution	3
ENVS 280	Principles of Ecology	3
ENVS 286S	Principles of Ecology Lab	1
PLSC 392	Environmental Politics	3
Justice and Ethics Choice		
Select one of the following:		3
ENVS 284	Environmental Justice	
PHIL 287	Environmental Ethics	
THEO 204	Religious Ethics and the Ecological Crisis	
Economics Choice		
ENVS 335	Ecological Economics	3
or ECON 328	Environmental Economics	
Engaged Learning Choice		
Select one of the following:		3
ENVS 226	Science & Conservation of Freshwater Ecosystems	
ENVS 267	Bird Conservation and Ecology	
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 350C	Solutions to Environmental Problems: Climate Action	
ENVS 350F	Solutions to Environmental Problems: Food Systems	
ENVS 369	Field Ornithology	
ENVS 391	Environmental Research (with SES approval)	
ENVS 395	Environmental Internship (with SES approval)	
Capstone Choice		
Select one of the following:		3
ENVS 390	Integrative Seminar	
ENVS 391C	Independent Environmental Research (Capstone)	
ENVS 395C	Environmental Internship (Capstone)	
Concentrations and Electives (p.)		*21-24*
See designated elective categories below		
MPP Requirements		
Core Requirements		
MPP 400	Policy Design and Analysis	3

MPP 401	Analytical Tools in Public Policy	3
MPP 403	Public Budget and Finance	3
MPP 404	Public Policy Process	3
MPP 405	Statistical Methods & Analysis for Public Policy I	3
MPP 406	Statistical Methods & Analysis Public Policy II	3
MPP 500	Public Policy Evaluation	3
MPP 502	Professional Development Skills	1
MPP 501	Public Policy Internship	3
or MPP 503	Public Policy Practicum	
Electives (p. 4)		
See designated elective categories below		12
Total Hours		**103-106**

Concentration Requirements and Elective Course Options

Environmental Science (Without Concentration)

Code	Title	Hours
Electives		
One (1) course in Society, Ethics, and Justice Electives		3
One (1) course in Policy, Economics, and Resource Management Electives		3
Five (5) courses in Environmental Science Electives, at least three (3) of which must be at 300-level		15
Total Hours		**21**

Environmental Science: Conservation and Restoration Ecology Concentration

Code	Title	Hours
Required Courses		
ENVS 218	Biodiversity & Biogeography	3
ENVS 320	Conservation Biology	3
ENVS 321	Conservation Biology Lab	1
ENVS 330	Restoration Ecology	3
ENVS 331	Restoration Ecology Lab	1
ENVS 383	Human Dimensions of Conservation	3
Electives		
One (1) course in Society, Ethics, and Justice Electives		3
One (1) course in Policy, Economics, and Resource Management Electives		3
One (1) course in Environmental Science Electives		3
Total Hours		**23**

Environmental Science: Environmental Health Concentration

Code	Title	Hours
Required Courses		
ENVS 300	Introduction to Public Health	3
ENVS 301	Environmental Health	3
ENVS 303	Introduction to Epidemiology	3
Electives		
One (1) course in Environmental Health and Society Electives		3
Four (4) courses in Environmental Science Electives		12
Total Hours		**24**

Environmental Science: Food Systems and Sustainable Agriculture Concentration

Code	Title	Hours
Required Courses		
ENVS 207	Plants and Civilization	3
ENVS 223	Soil Ecology	3
ENVS 325	Sustainable Agriculture	3
Food Systems and Sustainable Agriculture Required Choice		
Select one of the following:		3
ENVS 230	Feeding the Planet: Global Perspectives on Sustainability, Culture and Food	
ENVS 326	Agroecosystems	
ENVS 327	Food Systems Analysis	
ENVS 350F	Solutions to Environmental Problems: Food Systems	
Electives		
One (1) course in Society, Ethics, and Justice Electives		3
One (1) course in Policy, Economics, and Resource Management Electives		3
One (1) course in Environmental Science Electives		3
Total Hours		**21**

Electives

Society, Ethics, and Justice Electives

Code	Title	Hours
COMM 101	Public Speaking & Critical Thinking	3
COMM 277	Organizational Communication	3
COMM 306	Environmental Advocacy	3
COMM 322	Guerilla Media	3
COMM 379	Digital Sustainability [1]	3
ENGL 288	Nature in Literature	3
ENVS 204	Gender, Health & Environment	3
ENVS 230	Feeding the Planet: Global Perspectives on Sustainability, Culture and Food	3
ENVS 260 / COMM 260	Environmental Journalism	3
ENVS 279 / HIST 279E	Climate and History	3
ENVS 284	Environmental Justice	3
ENVS 285	Eco-spirituality	3
ENVS 297 / HIST 297E	North American Environmental History	3
ENVS 298	Special Topics (with SES approval)	1-12
ENVS 338	Climate Change and Human Health	3
ENVS 350A	Solutions to Environmental Problems: Water	3
ENVS 350C	Solutions to Environmental Problems: Climate Action	3
ENVS 350F	Solutions to Environmental Problems: Food Systems	3
ENVS 383	Human Dimensions of Conservation	3
ENVS 391	Environmental Research (with SES approval)	1-3

ENVS 395	Environmental Internship (with SES approval)	3
ENVS 398	Special Topics (with SES approval)	3
ENVS 399	Directed Readings (with SES approval)	1-3
PHIL 287	Environmental Ethics	3
PSYC 277	Environmental Psychology	3
SOCL 226	Science, Technology, & Society	3
SOCL 252	Global Inequalities	3
SOCL 272	Environmental Sociology	3
SOCL 276	The Sociology and Politics of Food	3
SOCL 278	Global Health	3
THEO 204	Religious Ethics and the Ecological Crisis	3
THEO 344	Theology and Ecology	3

[1] For students with the Conservation and Restoration Ecology Concentration or without a Concentration.

Policy, Economics, and Resource Management Electives

Code	Title	Hours
COMM 379	Digital Sustainability [1]	3
ECON 328	Environmental Economics	3
ENVS 230	Feeding the Planet: Global Perspectives on Sustainability, Culture and Food	3
ENVS 298	Special Topics (with SES approval)	1-12
ENVS 300	Introduction to Public Health	3
ENVS 310	Introduction to Environmental Law & Policy	3
ENVS 311	Natural Resources and Land Use Law & Policy	3
ENVS 312	Water Law & Policy	3
ENVS 313	Energy Law & Policy	3
ENVS 316	Energy and Power Systems	3
ENVS 327	Food Systems Analysis	3
ENVS 333	Introduction to the Circular Economy	3
ENVS 335	Ecological Economics	3
ENVS 336	Design for Circular & Sustainable Business	3
ENVS 338	Climate Change and Human Health	3
ENVS 351	Introduction to Sustainability Concepts & Impacts [1]	3
ENVS 363	Sustainable Business Management	3
ENVS 383	Human Dimensions of Conservation	3
ENVS 384	Conservation Economics	3
ENVS 389	Ecological Risk Assessment	3
ENVS 391	Environmental Research (with SES approval)	1-3
ENVS 395	Environmental Internship (with SES approval)	3
ENVS 398	Special Topics (with SES approval)	3
ENVS 399	Directed Readings (with SES approval)	1-3
GLST 305	Globalization and Environmental Sustainability	3
MGMT 201	Managing People and Organizations	3
PLSC 354	Global Environmental Politics	3

[1] For students in the Food Systems and Sustainable Agriculture Concentration only.

Environmental Science Electives

Code	Title	Hours
Environmental Science Electives		
ANTH 104	The Human Ecological Footprint	3
ANTH 303	People and Conservation	3
ENVS 204	Gender, Health & Environment [3]	3
ENVS 207	Plants and Civilization [4]	3
ENVS 215 / BIOL 215	Ornithology [1]	3
ENVS 218	Biodiversity & Biogeography [3]	3
ENVS 223	Soil Ecology [3]	3
ENVS 224	Climate & Climate Change	3
ENVS 226	Science & Conservation of Freshwater Ecosystems	3
ENVS 267	Bird Conservation and Ecology [5]	3
ENVS 273	Energy and the Environment [5]	3
ENVS 278	Hydrology [6]	3
ENVS 283	Environmental Sustainability	3
ENVS 298	Special Topics (with SES approval)	1-12
ENVS 300	Introduction to Public Health [7]	3
ENVS 301	Environmental Health [7]	3
ENVS 303	Introduction to Epidemiology [7]	3
ENVS 320	Conservation Biology [7]	3
ENVS 322	Invasive Species	3
ENVS 323	Environmental Microbiology [3]	3
ENVS 324	Climate Science	3
ENVS 325	Sustainable Agriculture [4]	3
ENVS 326	Agroecosystems	3
ENVS 327	Food Systems Analysis	3
ENVS 330	Restoration Ecology [3]	3
ENVS 338	Climate Change and Human Health [6]	3
ENVS 340	Natural History of Belize [5]	3
ENVS 345	Conservation and Sustainability of Neotropical Ecosystems [5]	3
ENVS 350A	Solutions to Environmental Problems: Water	3
ENVS 350C	Solutions to Environmental Problems: Climate Action	3
ENVS 350F	Solutions to Environmental Problems: Food Systems	3
ENVS 367	Mammalogy	3
ENVS 369	Field Ornithology [5]	3
ENVS 380	Introduction to Geographic Information Systems	3
ENVS 381	Advanced GIS Applications	3
ENVS 382	Remote Sensing	3
ENVS 383	Human Dimensions of Conservation [7]	3
ENVS 384	Conservation Economics [2]	3
ENVS 385	Introduction to Global Health	3
ENVS 386	Python Programming for GIS	3
ENVS 387	Principles of Ecotoxicology	3
ENVS 389	Ecological Risk Assessment	3
ENVS 391	Environmental Research (with SES approval)	1-3
ENVS 395	Environmental Internship (with SES approval)	3
ENVS 398	Special Topics (with SES approval)	3

ENVS 399	Directed Readings (with SES approval)	1-3
BIOL, CHEM, PHYS 300-level courses (with SES approval)		

1 For students with the Food and Sustainable Agriculture Concentration, the Environmental Health Concentration, or without a Concentration.
2 For students in the Environmental Health Concentration only.
3 For students with the Conservation and Restoration Ecology Concentration or without a Concentration.
4 For students in the Food Systems and Sustainable Agriculture Concentration only.
5 For students with the Conservation and Restoration Ecology Concentration, the the Environmental Health Concentration, or without a Concentration.
6 For students with the Food Systems and Sustainable Agriculture Concentration or without a Concentration.
7 For students without a Concentration only.

Environmental Health and Society Elective (Environmental Health only)

Code	Title	Hours
COMM 101	Public Speaking & Critical Thinking	3
COMM 260	Environmental Journalism	3
COMM 277	Organizational Communication	3
COMM 306	Environmental Advocacy	3
COMM 379	Digital Sustainability	3
ECON 328	Environmental Economics	3
ENGL 288	Nature in Literature	3
ENVS 204	Gender, Health & Environment	3
ENVS 230	Feeding the Planet: Global Perspectives on Sustainability, Culture and Food	3
ENVS 279	Climate and History	3
ENVS 284	Environmental Justice	3
ENVS 285	Eco-spirituality	3
ENVS 297	North American Environmental History	3
ENVS 298	Special Topics (with SES approval)	1-12
ENVS 310	Introduction to Environmental Law & Policy	3
ENVS 311	Natural Resources and Land Use Law & Policy	3
ENVS 312	Water Law & Policy	3
ENVS 313	Energy Law & Policy	3
ENVS 335	Ecological Economics	3
ENVS 338	Climate Change and Human Health	3
ENVS 340	Natural History of Belize	3
ENVS 350A	Solutions to Environmental Problems: Water	3
ENVS 350C	Solutions to Environmental Problems: Climate Action	3
ENVS 350F	Solutions to Environmental Problems: Food Systems	3
ENVS 363	Sustainable Business Management	3
ENVS 383	Human Dimensions of Conservation	3
ENVS 389	Ecological Risk Assessment	3
ENVS 391	Environmental Research (with SES approval)	1-3
ENVS 395	Environmental Internship (with SES approval)	3
ENVS 398	Special Topics (with SES approval)	3
ENVS 399	Directed Readings (with SES approval)	1-3
MGMT 201	Managing People and Organizations	3
PHIL 287	Environmental Ethics	3
PLSC 354	Global Environmental Politics	3
PSYC 277	Environmental Psychology	3
SOCL 226	Science, Technology, & Society	3
SOCL 252	Global Inequalities	3
SOCL 272	Environmental Sociology	3
SOCL 276	The Sociology and Politics of Food	3
SOCL 278	Global Health	3
THEO 204	Religious Ethics and the Ecological Crisis	3
THEO 344	Theology and Ecology	3

MPP Electives

Students are required to take 12 hours of electives. Electives can be drawn from departments across the university, including environmental studies and public health. These electives are where students can focus on their preferred field of policy. The following are some examples of optional courses:

Code	Title	Hours
Environment		
ENVS 410	Introduction to Environmental Law & Policy	3
ENVS 411	Natural Resources and Land Use Law & Policy	3
ENVS 412	Water Law & Policy	3
ENVS 413	Energy Law & Policy	3
ENVS 480	Introduction to Geographic Information Systems	3
ENVS 481	Advanced GIS Applications	3
Public Health		
MPBH 400	Determinants of Population Health	3
MPBH 401	Environmental Health	3
MPBH 407	Public Health Policy: Concepts and Practice	3

Suggested Sequence of Courses

The below sequence of courses is meant to be used as a suggested path for completing coursework. An individual student's completion of requirements depends on course offerings in a given term as well as the start term for a major or graduate study. Students should consult their advisor for assistance with course selection.

Course	Title	Hours
Year One		
Fall		
BIOL 101	General Biology I	3
BIOL 111	General Biology I Lab	1
CHEM 160	Chemical Structure and Properties	3
CHEM 161	Chemical Structure and Properties Laboratory	1
ENVS 137	Foundations of Environmental Science I	3
	Hours	**11**
Spring		
BIOL 102	General Biology II	3
BIOL 112	General Biology II Lab	1
CHEM 180	Chemical Reactivity I	3
CHEM 181	Chemical Reactivity I Lab	1
ENVS 200	Environmental Careers and Professional Skills	1

ENVS 203	Environmental Statistics	3
	Hours	**12**
Year Two		
Fall		
ENVS 280	Principles of Ecology	3
ENVS 286S	Principles of Ecology Lab	1
Environmental Science Elective		3
	Hours	**7**
Spring		
Justice & Ethics Choice		3
Environmental Science Elective		3
	Hours	**6**
Year Three		
Fall		
ENVS 274	Chemistry of the Natural Environment	3
ENVS 275	Chemistry of the Environment Lab	1
Environmental Science 300 Level Elective		3
Environmental Science 300 Level Elective		3
Society, Ethics, & Justice Elective		3
	Hours	**13**
Spring		
ENVS 335 or ECON 328	Ecological Economics or Environmental Economics	3
PLSC 392	Environmental Politics	3
Policy, Economics, & Resource Management Elective		3
300 Level Environmental Science Elective		3
	Hours	**12**
Year Four		
Fall		
Engaged Learning Choice		3
MPP 400 or MPP 401 or MPP 404	Policy Design and Analysis or Analytical Tools in Public Policy or Public Policy Process	3
ENVS 410 or ENVS 411 or ENVS 480	Introduction to Environmental Law & Policy or Natural Resources and Land Use Law & Policy or Introduction to Geographic Information Systems	3
	Hours	**9**
Spring		
Capstone Choice		3
MPP 403 or MPP 404	Public Budget and Finance or Public Policy Process	3
MPP 413 or ENVS 412 or ENVS 413 or ENVS 481	Intergovernmental Relations or Water Law & Policy or Energy Law & Policy or Advanced GIS Applications	3
	Hours	**9**
Year Five		
Fall		
MPP 405	Statistical Methods & Analysis for Public Policy I	3
MPP 501	Public Policy Internship	3
MPP 502	Professional Development Skills	1
MPP Elective		3
MPP Elective		3
	Hours	**13**
Spring		
MPP 406	Statistical Methods & Analysis Public Policy II	3
MPP 500	Public Policy Evaluation	3
MPP Elective		3
MPP Elective		3
	Hours	**12**
	Total Hours	**104**

Guidelines for Accelerated Bachelor's/ Master's Programs

Terms

- Accelerated Bachelor's/Master's programs: In this type of program, students share limited credits between their undergraduate and graduate degrees to facilitate completion of both degrees.
- Shared credits: Graduate level credit hours taken during the undergraduate program and then applied towards graduate program requirements will be referred to as shared credits.

Admission Requirements

Accelerated Bachelor's/Master's programs are designed to enhance opportunities for advanced training for Loyola's undergraduates. Admission to these programs must be competitive and will depend upon a positive review of credentials by the program's admissions committee. Accordingly, the admission requirements for these programs may be higher than those required if the master's degree were pursued entirely after the receipt of a bachelor's degree. That is, programs may choose to have more stringent admissions requirements in addition to those minimal requirements below.

Requirements:

- Declared appropriate undergraduate major,
- By the time students begin taking graduate courses as an undergraduate, the student has completed approximately 90 credit hours, or the credit hours required in a program that is accredited by a specialty organization,[1]
- A minimum cumulative GPA for coursework at Loyola that is at or above the program-specific requirements, a minimum major GPA that is at or above the program-specific requirements, and/or appropriate designated coursework for evaluation of student readiness in their discipline.[2]

Students not eligible for the Accelerated Bachelor's/Master's program (e.g., students who have not declared the appropriate undergraduate major) may apply to the master's program through the regular admissions process. Students enrolled in an Accelerated Bachelor's/Master's program who choose not to continue to the master's degree program upon completion of the bachelor's degree will face no consequences.[3]

Ideally, a student will apply for admission (or confirm interest in proceeding towards the graduate degree in opt-out programs) as they approach 90 credit hours. Programs are encouraged to begin advising students early in their major so that they are aware of the program and, if interested, can complete their bachelor's degree requirements in a way that facilitates completion of the program. Once admitted as

an undergraduate, Program Directors should ensure that students are enrolled using the plan code associated with the Accelerated Bachelor's/Master's program. Using the plan code associated with the Accelerated Bachelor's/Master's program will ensure that students may be easily identified as they move through the program. Students will not officially matriculate into the master's degree program and be labeled as a graduate student by the university, with accompanying changes to tuition and Financial Aid (see below), until the undergraduate degree has been awarded. Once admitted to the graduate program, students must meet the academic standing requirements of their graduate program as they complete the program curriculum.

1 Programs that have specialized accreditation will adhere to the admissions criteria provided by, or approved by, their specialized accreditors.
2 The program will identify appropriate indicators of student readiness for graduate coursework (e.g., high-level performance in 300 level courses). Recognizing differences between how majors are designed, we do not specify a blanket requirement.
3 If students choose not to enroll in the Accelerated Bachelor's/Master's program, they still must complete all of the standard requirements associated with the undergraduate degree (e.g., a capstone).

For more information on Admissions requirements, visit here (https://gpem.luc.edu/portal/admission/?tab=home).

Curriculum

Level and progression of courses. The Accelerated Bachelor's/Master's programs are designed to be competitive and attractive to our most capable students. Students admitted to Accelerated Bachelor's/Master's programs should be capable of meeting graduate level learning outcomes. Following guidance from the Higher Learning Commission, only courses taken at the 400 level or higher (including 300/400 level courses taken at the 400 level) will count toward the graduate program.[1,2] Up to 50% of the total graduate level credit hours, required in the graduate program, may come from 300/400 level courses where the student is enrolled in the 400 level of the course. Further, at least 50% of the credit hours for the graduate program must come from courses that are designed for and restricted to graduate students who have been admitted to a graduate program at Loyola (e.g., enrolled in plan code that indicates the Accelerated Bachelor's/Master's program, typically ending with the letter "D").[3]

In general, graduate level coursework should not be taken prior to admission into the Accelerated Bachelor's/Master's program. Exceptions may be granted for professional programs where curriculum for the Accelerated Bachelor's/Master's program is designed to begin earlier. On the recommendation of the program's Graduate Director, students may take one of their graduate level courses before they are admitted to the Accelerated Bachelors/Master's program if they have advanced abilities in their discipline and course offerings warrant such an exception.[4] Undergraduate degree requirements outside of the major are in no way impacted by admission to an Accelerated Bachelor's/Master's program.[5]

Shared credits. Undergraduate courses (i.e., courses offered at the 300 level or below) cannot be counted as shared credits nor count towards the master's degree. Up to 50% of the total graduate level credit hours, required in the graduate program, may be counted in meeting both the undergraduate and graduate degree requirements. Of those shared credits, students in an Accelerated Bachelor's/Master's program should begin their graduate program with the standard introductory course(s) for the program whenever possible. So that students may progress through the Accelerated Bachelor's/Master's program in a timely manner, undergraduate programs are encouraged to design their curriculum such that a student can complete some required graduate credit hours while completing the undergraduate degree. For instance, some of the graduate curriculum should also satisfy electives for the undergraduate major.

The program's Graduate Director will designate credit hours to be shared through the advising form and master's degree conferral review process. Shared credit hours will not be marked on the undergraduate record as having a special status in the undergraduate program. They will be included in the student's undergraduate earned hours and GPA. Graduate credit hours taken during the undergraduate program will not be included in the graduate GPA calculation.

1 If students wish to transfer credits from another university to Loyola University Chicago, the program's Graduate director will review the relevant syllabus(es) to determine whether it meets the criteria for a 400 level course or higher.
2 Programs with specialized accreditation requirements that allow programs to offer graduate curriculum to undergraduate students will conform to those specialized accreditation requirements.
3 In rare cases, the Graduate Director may authorize enrollment in a 400-level course for a highly qualified and highly motivated undergraduate, ensuring that the undergraduate's exceptional participation in the graduate class will not diminish in any way the experience of the graduate students regularly enrolled.
4 For example, if a particular course is only offered once every 2-3 years, and a student has demonstrated the necessary ability to be successful, the Graduate Director may allow a student to take a graduate level course to be shared prior to the student being formally admitted to the graduate program. See, also, footnote 3.
5 Students should not, for example, attempt to negotiate themselves out of a writing intensive requirement on the basis of admission to a graduate program.

Graduation

Degrees are awarded sequentially. All details of undergraduate commencement are handled in the ordinary way as for all students in the School/College/Institute. Once in the graduate program, students abide by the graduation deadlines set forth by the graduate program. Students in these programs must be continuously enrolled from undergraduate to graduate degree program unless given explicit permission by their program for a gap year or approved leave of absence. In offering the option of an Accelerated Bachelor's/Master's program, the university is making possible the acceleration of a student's graduate degree completion. It should be understood that students may not request deferral of their matriculation into the Master's degree program. If students would like to delay their graduate studies after earning the undergraduate degree, they may apply for admission to the traditional master's degree program. Any application of graduate credit earned while in the undergraduate program is subject to the policies of the graduate degree granting school.

Learning Outcomes

Upon completion of the joint degree program, students will be able to:

- Examine the causes and consequences of environmental change at local to global scales. [BS - no concentration]
- Apply scientific knowledge to evaluate policy, management, and other solutions that aim to enhance environmental sustainability. [BS - no concentration]

- Create an action plan for leading a professional and personal life that promotes environmental sustainability. [BS - no concentration]
- Articulate the foundational principles of natural and social sciences and humanities essential to solving environmental problems. [BS - no concentration and all concentrations]
- Critically evaluate the accuracy and credibility of information relating to environmental topics. [BS - no concentration and all concentrations]
- Design policy interventions and apply criteria to assess the best option in each specific case. [MPP]
- Understand a government budget and evaluate it from different stakeholder positions. [MPP]
- Understand the political process at the federal, state and local government levels. [MPP]
- Develop political messaging to advocate for policies and to build a political coalition of support for a program. [MPP]
- Apply appropriate statistical procedures used in public policy research and practice. [MPP]
- Design, conduct and critique program evaluations. [MPP]
- Experience working in the public policy arena in government agency, non-profit, research, or private sector organization. [MPP]
- Employ knowledge and skills to design and implement solutions that contribute to a just and sustainable world. [BS - no concentration and all concentrations]
- Exemplify the values of environmental and social justice through actions to care for our common home and one another. [BS - no concentration and all concentrations]
- Explain fundamental connections among ecological processes that are the basis of unity and diversity of life. [BS - Conservation and Restoration Ecology concentration]
- Analyze ecological and societal data to apply best management practices in conservation and restoration ecology. [BS - Conservation and Restoration Ecology concentration]
- Synthesize the social, historical, economic, political, and biological causes, consequences, and solutions to our current biodiversity crisis. [BS - Conservation and Restoration Ecology concentration]
- Develop and express a personal philosophy that values protecting and restoring our global bicultural diversity and vital ecosystems. [BS - Conservation and Restoration Ecology concentration]
- Examine the sources of environmental degradation and their impacts on health. [BS - Environmental Health concentration]
- Apply the tools of public health to characterize the impacts on community health using a planetary health perspective. [BS - Environmental Health concentration]
- Integrate environmental regulatory policies to evaluate the health impacts at local and global scales. [BS - Environmental Health concentration]
- Incorporate critical public health and environmental health justice perspectives into environmental and human dimensions. [BS - Environmental Health concentration]
- Explain the components of food systems and their complex interactions across spatial and temporal scales. [BS - Food Systems and Sustainable Agriculture concentration]
- Articulate the physical, psychological, cultural, and spiritual significance of food to individual and community wellbeing. [BS - Food Systems and Sustainable Agriculture concentration]
- Using multiple methods of analysis, evaluate the environmental and equity impacts of different food system practices to reveal points of leverage for social-ecological change. [BS - Food Systems and Sustainable Agriculture concentration]
- Engage knowledge, skills, and values through experiences that advance sustainability, resilience, and justice within food systems. [BS - Food Systems and Sustainable Agriculture concentration]

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.