

ENVIRONMENTAL SCIENCE: FOOD SYSTEMS AND SUSTAINABLE AGRICULTURE/ DIGITAL MEDIA AND STORYTELLING (BS/MC)

Loyola's School of Communication, in partnership with the School of Environmental Sustainability, will offer a new program that will enable students to earn an undergraduate and graduate degree in environmental communication in five years.

The new Accelerated Bachelor's/Master's (ABM) program will allow SOC students to earn their undergraduate degree in their declared major, plus a master's degree in Environmental Science and Sustainability.

Similarly, SES students will earn their undergraduate degree in their declared major, while also earning a master's degree from the SOC in either the Digital Media and Storytelling or Global Strategic Communication graduate programs.

The School of Communication and School of Environmental Sustainability spent two years developing this unique ABM program, joining only a handful of universities across the nation offering such a dual degree. The new program will begin in Fall 2022.

The two schools developed the ABM program to train environmental scientists to be better communicators, and communication professionals to better understand environmental science.

While environmental scientists are trained to investigate, analyze data and interpret results, they are not taught how to communicate their results and conclusions in ways that are readily accessible to the general public, CEOs, or legislators.

Equally, while journalists, filmmakers and television producers may have the skills to tell compelling stories, they often lack the scientific background to understand and properly relate the impact of climate change, pollution, and loss of biodiversity.

For students in the School of Communication, the ABM program will help deepen their understanding of complex socio-ecological issues and their connection with sustainable development goals, while also expanding their capacity to communicate environmental science and sustainability issues to the world. Such a program can help develop better-informed journalists, documentary filmmakers, television, radio and podcast producers, public relations and advertising professionals, and social media specialists.

For students in the School of Environmental Sustainability, the ABM program will help them with writing, public speaking, conference presentations, television and radio interviews, and social media messaging.

These ABM programs are uniquely applied and strongly interdisciplinary. They integrate basic science concepts, communication theory and practice, and socio-cultural dimensions to cultivate the interdisciplinary problem-solving and communication skills necessary for developing sustainable solutions. The goals of these programs are to:

- Educate students across the sciences, social sciences and humanities, providing knowledge and interdisciplinary perspectives needed to effectively address complex environmental problems through grounding in solid scientific understanding of ecosystem operation.
- Develop skills in environmental and sustainability sciences including GIS, sustainability tracking, and environmental communications as well as important professional skills, such as interdisciplinary thinking, systems thinking, research design, data collection, data analysis, research ethics, technical writing, and communication.
- Improve communication skills by teaching students how to tell stories through enhanced speaking and presentation methods, better writing, video production, recording podcasts, developing blogs and social media.
- Prepare students for advancement in careers in the public and private sectors, including in government agencies, consulting firms, media organizations, businesses, and not-for-profit organizations.

For more information, email: LoyolaSOC@luc.edu

CURRICULUM

Students studying Food Systems & Sustainable Agriculture build upon a solid foundation of environmental science, gain experience in designing and managing agricultural ecosystems, develop quantitative skills in evaluating ecosystem processes and services, and practice making management and policy recommendations based on available data.

Code	Title	Hours
BS Requirements		
<i>Core Curriculum</i>		
ENVS 137	Foundations of Environmental Science I	3
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
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
ENVS 274	Chemistry of the Environment	3
ENVS 275	Chemistry of the Environment Lab	1
ENVS 280	Principles of Ecology	3
ENVS 286S	Principles of Ecology Lab	1
PLSC 392	Environmental Politics	3
ENVS 207	Plants and Civilization	3
ENVS 223	Soil Ecology	3
ENVS 325	Sustainable Agriculture	3
Select one of the following:		
ENVS 320	Conservation Biology	3
ENVS 326	Agroecosystems	3
ENVS 327	Food Systems Analysis	3
ENVS 350F	Solutions to Environmental Problems: Food Systems	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 350B Solutions to Environmental Problems: Biogas

ENVS 350C Solutions to Environmental Problems: Climate Action

ENVS 350F Solutions to Environmental Problems: Food Systems

ENVS 369 Field Ornithology

ENVS 391 Environmental Research

ENVS 395 Environmental Internship

Capstone Choice

Select one of the following: 3

ENVS 390 Integrative Seminar

ENVS 391C Independent Environmental Research (Capstone)

ENVS 395C Environmental Internship (Capstone)

Electives 21

See designated elective categories below

MC Requirements

COMM 400 Designing for Digital Environments 3

COMM 405 Story Development and Production 3

COMM 410 Media Law for Inclusive Digital Storytelling 3

COMM 415 Data-Powered Digital Storytelling 3

COMM 420 Digital Production: Storytelling with Impact 3

COMM 425 Digital Marketing and Analytics 3

COMM 430 2D Design for Print and the Web 3

COMM 450 Capstone II 3

Elective Courses from List of Electives for DMST 12

Total Hours 115

BS Electives

Code	Title	Hours
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Society, Ethics, and Justice

Select one of the following: 3

COMM 260 Environmental Journalism

ENVS 204 Gender, Health & Environment

ENVS 279 / HIST 279E Climate and History

ENVS 284 Environmental Justice

ENVS 297 / HIST 297E 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 277 Organizational Communication

COMM 306 Environmental Advocacy

COMM 322 Guerilla Media

ENGL 288 Nature in Literature

PHIL 287 Environmental Ethics

PSYC 277 Environmental Psychology

SOCL 226 Science, Technology, & Society

SOCL 252 Global Inequalities

SOCL 272 Environmental Sociology

SOCL 276 The Sociology and Politics of Food

SOCL 278 Global Health

THEO 204 Religious Ethics and the Ecological Crisis

THEO 344 Theology and Ecology

Policy, Economics, and Resource Management

Select one of the following: 3

ENVS 298 Special Topics (with SES approval)

ENVS 300 Introduction to Public Health

ENVS 310 Introduction to Environmental Law & Policy

ENVS 311 Natural Resources and Land Use Law & Policy

ENVS 312 Water Law & Policy

ENVS 313 Energy Law & Policy

ENVS 327 Food Systems Analysis

ENVS 332 Industrial Ecology

ENVS 333 Introduction to the Circular Economy

ENVS 335 Ecological Economics

ENVS 336 Design for Circular & Sustainable Business

ENVS 338 Climate Change and Human Health

ENVS 351 Introduction to Sustainability Concepts & Impacts

ENVS 363 Sustainable Business Management

ENVS 364 Sustainability Management in the Global Context

ENVS 383 Human Dimensions of Conservation

ENVS 384 Conservation Economics

ENVS 389 Ecological Risk Assessment

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)

ECON 328	Environmental Economics	
COMM 379	Digital Sustainability	
GLST 305	Globalization and Environmental Sustainability	
MGMT 201	Managing People and Organizations	
PLSC 354	Global Environmental Politics	
Environmental Electives		
Select one of the following:		3
ENVS 204	Gender, Health & Environment	
ENVS 218	Biodiversity & Biogeography	
ENVS 224	Climate & Climate Change	
ENVS 226	Science & Conservation of Freshwater Ecosystems	
ENVS 267	Bird Conservation and Ecology	
ENVS 273	Energy and The Environment	
ENVS 283	Environmental Sustainability	
ENVS 298	Special Topics (with SES approval)	
ENVS 300	Introduction to Public Health	
ENVS 301	Environmental Health	
ENVS 303	Introduction to Epidemiology	
ENVS 319	Winter Ecology	
ENVS 320	Conservation Biology (if not used above)	
ENVS 322	Invasive Species	
ENVS 323	Environmental Microbiology	3
ENVS 326	Agroecosystems (if not used above)	
ENVS 327	Food Systems Analysis (if not used above)	
ENVS 330	Restoration Ecology	
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 Action	
ENVS 350F	Solutions to Environmental Problems: Food Systems	
ENVS 369	Field Ornithology	
ENVS 380	Introduction to Geographic Information Systems	
ENVS 381	Advanced GIS Applications	
ENVS 382	Remote Sensing	
ENVS 383	Human Dimensions of Conservation	
ENVS 384	Conservation Economics	
ENVS 385	Introduction to Global Health	
ENVS 387	Principles of Ecotoxicology	
ENVS 388	Applied Environmental Statistics	
ENVS 389	Ecological Risk Assessment	
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)	
ANTH 104	The Human Ecological Footprint	
ANTH 303	People and Conservation	
BIOL, CHEM, PHYS 300-level courses (with SES approval)		
Total Hours		12

Electives for Digital Media and Storytelling

Code	Title	Hours
Advertising/Public Relations		
COMM 422	Global and Multicultural Audiences and Stakeholders	3
COMM 432	Nonprofit Communication	3
COMM 433	Corporate Communication	3
COMM 437	Advertising/PR Multimedia Commercial Production	3
COMM 463	Intermediate Advertising Design	3
COMM 464	Mobile Advertising	3
Film and Production		
COMM 439	Video Documentary	3
COMM 455	Animation	3
COMM 459	Advanced Post Production	3
COMM 494	Film & Digital Media Internship	3
Multimedia Journalism		
COMM 458	Newscasting and Producing	3
COMM 473	Digital Storytelling Abroad	3
COMM 492	Multimedia Journalism Internship	3
Other		
COMM 416	Special Topics in Digital Media & Storytelling	3
COMM 479	Digital Sustainability	3
COMM 498	Directed Study for Graduate Students	1-3

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.

To complete the Digital Media and Storytelling MC portion of the accelerated bachelor's master's program the following courses are required:

Course	Title	Hours
Year Four		
Fall		
COMM 405	Story Development and Production	3
COMM 420	Digital Production: Storytelling with Impact	3
DMST Elective		3
		Hours
		9
Spring		
COMM 425	Digital Marketing and Analytics	3
COMM 430	2D Design for Print and the Web	3
DMST Elective		3
		Hours
		9
Year Five		
Fall		
COMM 400	Designing for Digital Environments	3
COMM 410	Media Law for Inclusive Digital Storytelling	3
DMST Elective		3
		Hours
		9

Spring		
COMM 415	Data-Powered Digital Storytelling	3
COMM 450	Capstone II	3
DMST Elective		3
	Hours	9
	Total Hours	36

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).

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 Bachelor's/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 4.
- 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.

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.

LEARNING OUTCOMES

- Explain the components of food systems and their complex interactions across spatial and temporal scales.
- Articulate the physical, psychological, cultural, and spiritual significance of food to individual and community wellbeing.

- 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.
- Engage knowledge, skills, and values through experiences that advance sustainability, resilience, and justice within food systems.

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.