ENVIRONMENTAL SCIENCE (MS)

DePaul's innovative MS program in Environmental Science provides a theoretically-grounded and professionally-oriented preparation for careers in environmental science. The degree will prepare students for a variety of environmental professions, including research careers. We envision that graduates will focus especially on careers in land management, including restoration ecology, species and landscape conservation, biodiversity management, green infrastructure management, urban ecology and a variety of ecological consultancy services.

Consistent with DePaul University's Departmental of Environmental Science and Studies expertise in urban biodiversity and associated management techniques, foundational courses introduce a range of novel ideas and methods that are employed in metropolitan conservation programs. Students are required to take advanced-level classes in data analysis and sustainability science. Through our partnerships with organizations throughout the region, students will witness how successful conservation is instituted in practice. Although there is an urban focus to the program, the balanced theoretical and hands-on emphasis of this degree will ensure that students can be creative problem solvers in a wide variety of ecological situations from wilder areas to the city core.

Students can chose between a professional track and a thesis track depending upon the career objectives. A suite of upper-level electives and allied field courses will ensure that students in the program are prepared for the next stages in their environmental careers.

Program Requirements	Quarter Hours
Degree Requirements	52
Total hours required	**52**

Learning Outcomes

Students will be able to:

- Develop an interdisciplinary base in environmental science with breadth in applied ecology, physical science, and natural resource management.
- Synthesize data, perspectives, and theories from the natural and social sciences to inform an integrated understanding of environmental challenges.
- Evaluate possible solutions to environmental problems by engaging in dialog across stakeholder groups (e.g. communities, government, nonprofits, private sector, scientists) and collaboratively achieve ethical compromise.
- Create oral and written products to communicate scientific findings and/or management outcomes to a wide audience, especially at the interface of science, policy, and the public.

Degree Requirements

Core (5 courses)

Course	Title	Quarter Hours
ENV 401	INTRODUCTION TO URBAN BIODIVERSITY MANAGEMENT	4
ENV 402	URBAN ECOLOGY	4
ENV 403	ECOLOGICAL DATA ANALYSIS WITH R	4
ENV 404	APPLIED ECOLOGICAL MANAGEMENT PRACTICUM	4
ENV 506	SUSTAINABILITY SCIENCE: ENVIRONMENTAL LIMITS, HUMAN NEEDS, & SYSTEMS THINKING	4

Students Select Either the Professional Track or Thesis Track

Professional Track (2 courses)

Course	Title	Quarter Hours
ENV 405	INTERNSHIP	4
ENV 406	INDEPENDENT PROJECT	4

Thesis Track (3 courses)

Course	Title	Quarter Hours
ENV 407	RESEARCH FOR MASTER THESIS	4
ENV 450	THESIS RESEARCH (take twice)	4

Electives (4 courses for Professional track, 3 courses for Thesis track)

Course	Title	Quarter Hours
Select 4 courses for Professional track, 3 courses for Thesis track:		12-16
ENV 400	PLANT IDENTIFICATION	
ENV 410	ENVIRONMENTAL SOIL SCIENCE	
ENV 415	PLANT ECOLOGY	
ENV 420	CONSERVATION BIOLOGY	
ENV 425	ANIMAL DIVERSITY	
ENV 422	ECOSYSTEM ECOLOGY	
ENV 441	URBAN FORESTS AS SOCIAL-ECOLOGICAL SYSTEMS	
ENV 443	MAMMALOGY	
ENV 446	HERPETOLOGY	

Allied Fields (2 courses)

Course	Title	Quarter Hours
Select two of the following:		8
BIO 415	TOPICS IN ECOLOGY	
BIO 417	AQUATIC BIOLOGY	
BIO 420	ADVANCED MICROBIOLOGY	
BIO 421	MOLECULAR METHODS IN ECOLOGY AND EVOLUTION	
BIO 432	POPULATION ECOLOGY	
BIO 435	CONCEPTS IN EVOLUTION	
BIO 445	TOPICS IN PALEOBIOLOGY	
BIO 489	RESEARCH IN FIELD BIOLOGY	
ENV 490	SPECIAL TOPICS	
ENV 499	INDEPENDENT STUDY	
GEO 441	GEOGRAPHIC INFORMATION SYSTEMS (GIS) FOR COMMUNITY DEVELOPMENT	

GEO 442	GEOGRAPHICAL INFORMATION SYSTEMS (GIS) FOR SUSTAINABLE URBAN DEVELOPMENT
GEO 445	PROGRAMMING IN PYTHON FOR GIS
GEO 446	GIS ANALYSIS OF ENVIRONMENTAL AND PUBLIC HEALTH
GEO 447	WEB GIS AND SPATIAL DATA VISUALIZATION ON THE WEB
GEO 491	STATISTICAL DATA ANALYSIS FOR GIS
SUD 402	SUSTAINABLE URBAN DEVELOPMENT II: APPLIED ANALYSIS OF URBAN ENVIRONMENTAL POLICY
WRD 526	GRANT AND PROPOSAL WRITING

Students must take GEO 441 or document a comparable competency in Geographical Information Systems.

Program Graduate Student Handbook

Academic Probation

A student will be placed on academic probation at the time when their cumulative GPA falls below 2.70.

Academic Dismissal

A graduate student may be academically dismissed under one or more of the following violations of satisfactory progress: their cumulative GPA remains below 2.70 after one year of coursework while being on academic probation or lack of progress toward degree completion.

Conditional Admission

Students whose undergraduate degrees were in majors other than environmental science, ecology, or related fields may be conditionally admitted provided they complete the following minimum prerequisites as conditions: applied ecology [equivalent to ENV 250], earth system science [equivalent to ENV 216] or climate change [equivalent to ENV 230], statistics [equivalent to ENV 260 or BIO 206] and math up to and including precalculus [equivalent to MAT 130].

Readmission

The same readmission standards outlined in the Graduate Student Handbook and approval of the program director are observed for students in these programs.

Transfer Credit

No more than two graduate courses (8 quarter hours or its semester equivalent) may be transferred from another program or institution provided that they are equivalent to courses offered in DePaul's graduate program, and they did not count toward another degree at DePaul or another institution. Written approval must come from the Graduate Program Director and the Associate Dean for Graduate Studies.

Undergraduate Courses

No undergraduate courses shall count toward the graduate degree.

Graduation Requirements

Requirements include, but are not limited to, thirteen graduate courses (52 credit hours) at a minimum cumulative GPA of 2.70.

Graduation with Distinction

A minimum cumulative GPA of 3.70 for coursework applied toward the Environmental Science degree and high performance - as determined by the Environmental Science and Studies Department - on the thesis or independent project are required for graduation with distinction.

Time Limitation

The degree is expected to be completed in a maximum of six years.