

ENVIRONMENTAL SCIENCE (BS)

The Bachelor of Science degree in Environmental Science is a broad, science-based curriculum designed to prepare students for a variety of environmentally-related technical careers, as well as for graduate programs in environmental and allied fields. The program requires 192 credit hours and draws upon the faculty and resources of several departments. Majors take core courses in Biology, Chemistry, Environmental Science, Mathematics, and Physics, advanced study in Environmental Science and five university-wide electives.

Program Requirements	Quarter Hours
Liberal Studies Requirements	76
Major Requirements	96 - 106
Open Electives	10 - 20
Total hours required	192

Learning Outcomes

Students will be able to:

- Discuss how the four spheres of the natural world (biosphere, hydrosphere, atmosphere, and lithosphere) are interconnected for a given environmental issue.
- Demonstrate how humans impact the natural world and how the natural world impacts humans, including in the context of social and environmental justice.
- Critically evaluate the science behind complex environmental problems that humans currently face both locally and globally.
- Design and conduct a scientific investigation using appropriate tools and techniques to gather, analyze, and interpret data and communicate results in oral and written form.

College Core Requirements

Modern Language Requirements

Students who intend to graduate with the Bachelor of Arts (BA) degree will be required to demonstrate competence in a modern language equivalent to the proficiency attained from one year of college-level language study. Such competence may be demonstrated in one of several ways:

- completing the last course in the fourth-year high school sequence of any language
- completing the last course in the first-year college sequence of any language
- completing a college course beyond the first-year level in any language
- achieving a satisfactory score on any of the Modern Language placement examinations administered at DePaul
- achieving a satisfactory rating in a proficiency examination accepted by DePaul
- achieving a score of 3 or higher on the Advance Placement (AP) test for any language
- achieving a score of 5 or higher in the Language B assessment from a Standard or Higher Level International Baccalaureate (IB) program
- achieving a satisfactory score on the CLEP examination

Please note: Modern Languages courses with an E-designation are taught in English and may not be applied to the Modern Language Requirement.

For further information regarding satisfactory scores and possible credit from the DePaul placement, AP, CLEP, or IB examinations, please contact Student Records.

Students who complete an Inter-College Transfer (ICT) to the College of Science and Health will abide by the College of Science and Health Modern Language Requirement in place on the effective date of the ICT.

BA students who meet College requirements and wish to pursue further work in the language may elect the Language for Liberal Studies Option (<https://catalog.depaul.edu/undergraduate-core/liberal-studies-program/liberal-studies-program-guidelines/language-for-liberal-studies-option/>) of the Liberal Studies Program. While Bachelor of Science (BS) students are not required to demonstrate competency in a modern language, the Language for Liberal Studies Option is available to them for language study at any level. Modern Languages courses with an E-designation are taught in English and may not be applied to the Language for Liberal Studies Option.

Major Declaration Requirements

All students in the College are required to declare a major field prior to beginning their junior year. After researching College programs, the student should declare a major field by visiting Campus Connection and using the Declarations and Inter-College Transfer tool. The student will then be assigned a faculty advisor or staff advisor in the department or program and should make an appointment to see that advisor at his or her earliest convenience.

To change major fields, or to declare a minor or concentration, the student must use the Declarations and Inter-College Transfer tool described above. However, for the purpose of exploring the possibility of changing a major field, the student should consult an academic advisor in the College or an academic advisor in the Office for Academic Advising Support.

Liberal Studies Requirements

Honors program requirements can be found in the individual Colleges & Schools section of the University Catalog. Select the appropriate college or school, followed by Undergraduate Academics and scroll down.

First Year Program		Hours
Chicago Quarter		
LSP 110 or LSP 111	DISCOVER CHICAGO or EXPLORE CHICAGO	4
Focal Point		
LSP 112	FOCAL POINT SEMINAR	4
Writing		
WRD 103	COMPOSITION AND RHETORIC I ¹	4
WRD 104	COMPOSITION AND RHETORIC II ¹	4
Quantitative Reasoning		
Not Required		
Sophomore Year		
Race, Power, and Resistance		
LSP 200	SEMINAR ON RACE, POWER, AND RESISTANCE	4

Junior Year**Experiential Learning**

Required	4
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Senior Year**Capstone**

ENV 350	ENVIRONMENTAL SCIENCE AND STUDIES CAPSTONE ^{1,2}	4
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¹ Students must earn a C- or better in this course.

² Students with a primary major in Environmental Science are required to complete the Capstone offered by the Environmental Science department. Students double majoring or pursuing dual degrees with the primary major or primary degree in Environmental Science are required to complete the Capstone offered by the Environmental Science department. Environmental Science students in the University Honors Program shall take the University Honors Capstone. They are not expected to take both the Honors Capstone and the primary major or primary degree Capstone.

Learning Domains

Arts and Literature (AL) (<https://catalog.depaul.edu/undergraduate-core/liberal-studies-program/liberal-studies-learning-domains/arts-and-literature/>)

- 3 Courses Required

Historical Inquiry (HI) (<https://catalog.depaul.edu/undergraduate-core/liberal-studies-program/liberal-studies-learning-domains/historical-inquiry/>)

- 2 Courses Required

Math and Computing (MC) (<https://catalog.depaul.edu/undergraduate-core/liberal-studies-program/liberal-studies-learning-domains/math-and-computing/>)

- Not Required

Philosophical Inquiry (PI) (<https://catalog.depaul.edu/undergraduate-core/liberal-studies-program/liberal-studies-learning-domains/philosophical-inquiry/>)

- 2 Courses Required

Religious Dimensions (RD) (<https://catalog.depaul.edu/undergraduate-core/liberal-studies-program/liberal-studies-learning-domains/religious-dimensions/>)

- 2 Courses Required

Scientific Inquiry (SI) (<https://catalog.depaul.edu/undergraduate-core/liberal-studies-program/liberal-studies-learning-domains/scientific-inquiry/>)

- Not Required

Social, Cultural, and Behavioral Inquiry (SCBI) (<https://catalog.depaul.edu/undergraduate-core/liberal-studies-program/liberal-studies-learning-domains/social-cultural-and-behavioral-inquiry/>)

- 3 Courses Required

Notes

Courses offered in the student's primary major cannot be taken to fulfill LSP Domain requirements. (Courses in the range 150-199 are exceptions to this rule.) If students double major, LSP Domain courses may double count for both LSP credit and the second major. Students who choose

to take an experiential learning course offered by the major may count it either as a general elective or the Experiential Learning requirement.

In meeting learning domain requirements, no more than one course that is outside the student's major and is cross-listed with a course within the student's major, can be applied to count for LSP domain credit.

This policy does not apply to those who are pursuing a double major or earning BFA or BM degrees.

Students are advised to talk with their advisor before double majoring, because some major combinations are prohibited. No more than 50% of the credits that apply to one major may be drawn from another major.

Major Requirements**Course Requirements**

Course	Title	Quarter Hours
ENV 250	APPLIED ECOLOGY	4
or BIO 215	ECOLOGY	
ENV 216	EARTH SYSTEM SCIENCE	4
ENV 217	HUMAN IMPACTS ON THE ENVIRONMENT	4
ENV 260	ENVIRONMENTAL DATA ANALYSIS ³	4
or MAT 348	APPLIED STATISTICAL METHODS	
ENV 294	SECOND YEAR SEMINAR	2
ENV 360	RESEARCH METHODS	4
ENV 362	SENIOR THESIS	2
ENV 350	ENVIRONMENTAL SCIENCE AND STUDIES CAPSTONE (Liberal Studies Program Capstone) ¹	4
Select three of the following:		12
ENV 300	PLANT IDENTIFICATION (WITH LAB)	
ENV 305	ANIMAL DIVERSITY	
ENV 310	ENVIRONMENTAL SOIL SCIENCE (WITH LAB)	
ENV 315	PLANT ECOLOGY (WITH LAB)	
ENV 320	CONSERVATION BIOLOGY (WITH LAB)	
ENV 322	ECOSYSTEM ECOLOGY (WITH LAB)	
ENV 341	URBAN FORESTS AS SOCIAL-ECOLOGICAL SYSTEMS (WITH LAB)	
ENV 343	MAMMALOLOGY	
ENV 346	HERPETOLOGY	
ENV 355	INTRODUCTION TO ENVIRONMENTAL HEALTH	
ENV 359	ADVANCED ENVIRONMENTAL DATA ANALYSIS WITH R	
ENV 390	SPECIAL TOPICS IN ENVIRONMENTAL SCIENCE ((with prior advisor permission)) ²	
General Biology requirements		
BIO 191	GENERAL BIOLOGY I FOR SCIENCE MAJORS	4
BIO 192	GENERAL BIOLOGY II FOR SCIENCE MAJORS	4
BIO 193	GENERAL BIOLOGY III FOR SCIENCE MAJORS	4
General Chemistry requirements		
Select one of the following:		4-6

CHE 130 & CHE 131	GENERAL CHEMISTRY I and GENERAL CHEMISTRY I LABORATORY	
CHE 120 & CHE 131	GENERAL CHEMISTRY IP and GENERAL CHEMISTRY I LABORATORY	
Select one of the following:		4-6
CHE 132 & CHE 133	GENERAL CHEMISTRY II and GENERAL CHEMISTRY LABORATORY II	
CHE 122 & CHE 133	GENERAL CHEMISTRY IIP and GENERAL CHEMISTRY LABORATORY II	
CHE 134 & CHE 135	GENERAL CHEMISTRY III and GENERAL CHEMISTRY LABORATORY III	4

Mathematics requirements

Select one of the following calculus sequences:

Sequence One

MAT 147	CALCULUS WITH INTEGRATED PRECALCULUS I	6
MAT 148	CALCULUS WITH INTEGRATED PRECALCULUS II	6
MAT 149	CALCULUS WITH INTEGRATED PRECALCULUS III	6

Sequence Two

MAT 150	CALCULUS I	4
MAT 151	CALCULUS II	4
MAT 152	CALCULUS III	4

Sequence Three

MAT 155	SUMMER CALCULUS I	6
MAT 156	SUMMER CALCULUS II	6

General Physics requirements

PHY 150	GENERAL PHYSICS I	4
PHY 151	GENERAL PHYSICS II	4
PHY 152	GENERAL PHYSICS III	4

Discipline requirements

Select three courses from within one discipline in consultation with your advisor: 12

Biology

BIO 210	MICROBIOLOGY	
BIO 235	EVOLUTION	
BIO 260	GENETICS	
BIO 315	TOPICS IN ECOLOGY	
BIO 317	AQUATIC BIOLOGY	
BIO 318	FIELD STUDIES IN MARINE AND ESTUARINE BIOLOGY	
BIO 321	MOLECULAR METHODS IN ECOLOGY AND EVOLUTION	

Chemistry

CHE 230 & CHE 231	ORGANIC CHEMISTRY I and ORGANIC CHEMISTRY LABORATORY I	
CHE 232 & CHE 233	ORGANIC CHEMISTRY II and ORGANIC CHEMISTRY LABORATORY II	

CHE 234 & CHE 235	ORGANIC CHEMISTRY III and ORGANIC CHEMISTRY LABORATORY III	
CHE 204 & CHE 205	ANALYTICAL CHEMISTRY and ANALYTICAL CHEMISTRY LABORATORY	
CHE 264 & CHE 265	ATMOSPHERIC CHEMISTRY and ATMOSPHERIC CHEMISTRY LABORATORY	
CHE 340 & CHE 341	BIOCHEMISTRY I and EXPERIMENTAL BIOCHEMISTRY I	
Geography (GIS)		
GEO 241	GEOGRAPHIC INFORMATION SYSTEMS I: DIGITAL MAPPING	
GEO 242	GEOGRAPHIC INFORMATION SYSTEMS II: COMMUNITY GIS	
GEO 243	EARTH OBSERVATION	
GEO 343	EARTH OBSERVATION II	
GEO 344	SPATIAL ANALYSIS FOR SUSTAINABILITY	

¹ Students in the University Honors Program and students with a double major may be required to take a different Capstone. If this is the case, they may choose to substitute ENV 350 as one of their required 300-level ENV courses or as an open elective.

² Each quarter one or more versions of ENV 390 are offered. Some might be applicable to your major requirements. Please contact your advisor for details.

³ BIO 206 can be substituted with approval of ENV chair prior to enrollment.

Environmental Science (BS) students are not eligible to earn a double major in Environmental Studies (BA)

Open Electives

Open elective credit also is required to meet the minimum graduation requirement of 192 hours.