DEPAUL UNIVERSITY

COLLEGE OF SCIENCE AND HEALTH

Department of Environmental Science and Studies



UNDERGRADUATE STUDENT HANDBOOK 2022-23

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Welcome!

The Department of Environmental Science and Studies (ENV) is a closely knit group of students, staff and faculty dedicated to understanding how humans interact with the environment and to exploring ways to minimize harmful human impacts. ENV faculty and staff work closely with students to investigate these issues with an emphasis on topics that affect the greater Chicago area and environmental justice. Because of the relatively low numbers of students per faculty member, mentorship and advising are personalized. The broad nature of environmental science and studies leads to a range of different academic pathways, and this guide documents the various options available within ENV.

This guide is intended to aid ENV undergraduate students (BS, BA, and minors) to successfully carry out their programs. While our MS students will find some of this handbook relevant, they should first consult the <u>graduate student handbook</u> and the <u>Desire to Learn</u> site. We have included much of the information that students will find useful in scheduling their courses, deciding on electives to take, and in thinking about their larger academic and career goals. Much of this information is collected from various sources at DePaul, and links are provided to the official policies whenever possible. Please let us know of any errors that you find, as well as any additional types of information you would like us to put in this guidebook. Our goal is to make sure that every student has access to all the information they need to complete our curriculum and help them succeed in their academic careers.

Our Programs of Study

ENV offers students a choice of two undergraduate degree programs, one leading to a Bachelor of Science (BS) in Environmental Science and the other leading to a Bachelor of Arts (BA) in Environmental Studies. The BA further offers students the option of two concentrations: the Sustainability Concentration that focuses on environmental sustainability and the Standard Concentration offering more flexibility in course choices. Both the BS and BA degree programs develop the environmental literacy of students and increase their understanding of the broad context of environmental problems and solutions. In addition, ENV offers a Master of Science (MS) degree in Environmental Science, including a combined program where undergraduate students can take three graduate classes that are carried over to the ENV MS degree.

The <u>BS in Environmental Science</u> provides students with a strong science and math background and prepares students to explore environmental topics from a scientific and technical perspective. Students gain knowledge and skills of environmental science through coursework as well as through field- and laboratory-based research projects in the Chicago area. This degree program prepares students for entry level positions in industry and government and for further study in science, engineering, law, policy, and education among other graduate programs.

The <u>BA in Environmental Studies</u> trains students to view the inherently holistic problems associated with the environment in a thoroughly interdisciplinary way. This overcomes the problems that come from applying a narrower disciplinary focus to problems that cross the disciplines. For instance, viewing a given environmental problem from a purely natural science perspective may lead exclusively to technical solutions. The same problem viewed through an

exclusively humanistic perspective or social science lens may lead to a greater subtlety in problem definition but may not produce technically feasible solutions. The BA is ideal for students who wish to bring their interest in the environment and natural world to community and business organizations or other aspects of their personal or professional life.

Contacting Faculty and Staff

Talk with your academic faculty and/or staff advisor on a regular basis to ensure that you are on track for completing the program with the types of electives and options that best fit your needs. You can find the names of your academic advisors on Campus Connect under Academic Progress or stop by or call the ENV Office (McGowan South Room 203, phone 773-325-7447, campus extension 57447). The main ENV office is generally open Monday through Friday from 9 AM to 5 PM during academic terms and more occasionally during the summer and breaks. If you are interested in research opportunities, you can contact any ENV faculty member directly.

Frequently Asked Questions

The answers below are meant to give you some initial guidance, but of course the full and official policies always apply. And please consult your advisors!

Can I get DePaul credit for AP classes taken during high school?

Yes, DePaul credit may be awarded for AP (and IB) courses depending on the test score (<u>Credit Given by Exam</u>). You need to have your test scores sent to DePaul from the testing agencies. Students with strong backgrounds (e.g., "5" on the AP exams) may wish to start their freshman year by taking the ENV core courses if appropriate, allowing them to take additional ENV electives in their senior year.

Can I take a class at a community college and then transfer the credits back to DePaul?

Generally, yes, but there are some <u>rules</u> and <u>restrictions</u>. At least the last 60 quarter hours must be earned in residency at DePaul University, so generally you cannot transfer in courses after your junior year. Additionally, at least one-half of the major field course work also must be completed at DePaul. Use the DePaul's <u>Course List</u> to see how external courses may be transferred to your undergraduate degree at DePaul. Please complete the <u>Transfer Credit Approval</u> form *before* you take a course at another institution to check your planned external course(s) will count as anticipated at DePaul.

Can I and should I take language classes at DePaul?

Students who intend to graduate with the ENV BA degree are required to satisfy the Modern Language Requirement (MLR). Language competence may be demonstrated in several ways but if you have no prior proficiency in a language, you will be required to take three language classes, so please plan ahead. You can assess your proficiency by taking a placement test with the Modern Languages Department. BA students who meet the MLR and wish to pursue further work in a language may elect the Modern Language Option (MLO) of the Liberal Studies Program. While BS students are not required to demonstrate competency in a modern language, the MLO is available to them for language study at any level. Students selecting the MLO may

substitute a three-course language sequence for three Liberal Studies domain courses with some restrictions.

Can I get academic credit for an internship or study abroad?

The Experiential Learning (EL) component of the Liberal Studies requirements typically can be filled in three ways: coursework, internships and study abroad. In all cases, you will enroll in a 4-credit course to fulfill the requirement. We currently have four courses specific for ENV students: ENV 235 Environmental Education, ENV 245 Urban Agriculture, ENV 322 Ecosystem Ecology and ENV 361 Research in Environmental Science, a course for independent study that can also extend the effort done to fulfill the senior thesis requirement for BS students. In addition, there are numerous study abroad or service-based learning courses that fulfill the requirements. You can also fulfill the requirement by taking the university internship course if you already have an internship or are willing to locate one. ENV interfaces with the Steans Center and the Career Center to provide internship opportunities and has a number of dedicated internships. Please keep in touch with your advisors, since there are many ways to fulfill the EL requirement. For example, taking an EL course earlier in your undergraduate career will preclude the possibility of getting EL credit for a study abroad program course.

Can I study abroad as an ENV major?

Yes, but there are <u>many options</u> and the sooner you plan the better. This is particularly true for ENV BS students because of the challenges posed by the low number of elective courses and the year-long required sequence courses in math, physics, chemistry and biology, many of which come with a lab. DePaul offers both term-long and short-term programs. Short-term programs generally consist of two DePaul courses. Often you can fulfill Experiential Learning and a Learning Domain with these two courses. Also, there are short-term programs for the Focal Point Seminar (LSP 112) and the Seminar on Race, Power, and Resistance (LSP 200). Typically, term-long programs are most practical during the autumn quarter, since you miss only one academic term at DePaul. You can also complete non-DePaul study abroad programs, which gives you great flexibility and choice. But these non-DePaul programs require you to coordinate between Study Abroad, the <u>CSH advising office</u>, your financial aid situation, and your ENV faculty advisor.

Can I do undergraduate research?

Yes! Faculty within ENV often have positions available for undergraduates seeking research opportunities, and there is funding for such work (for example, through the <u>Undergraduate Research Assistant Program and Undergraduate Summer Research Grants</u>). Research opportunity are available both to BA and BS students, however, <u>thesis research</u> is required for Environmental Science students. We encourage all students to <u>contact faculty</u> and explore the opportunity for research. Undergraduate research is not only fun and educational, but it often leads to co-authorship on conference abstracts and presentations, or even <u>formal internal</u> or external research publications.

I am an ENV BS student. When should I take ENV 360 Research Methods?

You should take ENV 360 Research Methods either your sophomore or junior year and *at least* two quarters, and preferably three, before graduation. This class prepares you to complete your senior thesis, and this process typically takes at least *one year* to complete.

I am having trouble scheduling my lab classes. Can I wait to take them until my senior year?

No! All required ENV core lab classes and ENV 300-level lab classes are only offered once per year (at most) so there is little flexibility in scheduling. For ENV BS students, you need to start taking the year-long, introductory sequence courses (calculus, physics, biology and chemistry) your first year. Doubling up these sequence courses is possible but arduous. Additionally, you need to take your required ENV lab classes too, so do not get behind or you could be forced to take three lab classes in one quarter. For ENV BA students, you have fewer lab classes to take, but still spread them out to avoid schedule conflicts that could delay your graduation.

I have run out of electives. Can I take any "fun" courses?

Yes, all courses are fun! And you can also consider taking ENV 390 2-credit courses. As part of your full-time tuition package, you can take up to 18 credits. Since most classes are four credits, you can take an additional 2-credit class as a fifth, partial class. These special topics courses range from Bird Identification to Fire Ecology, and these course are often offered at night.

Can I complete a double major with ENV?

Yes, double majors are permitted between and within colleges, but there are a number of <u>stipulations</u>. Most importantly, you need to select one major as primary, which affects your Liberal Studies Program requirements. See your advisor early in your undergraduate career if you are thinking of double majoring.

Can I get a minor in ENV?

Yes, the department offers <u>four minors</u>: <u>Environmental Science</u>, <u>Environmental Studies</u>, <u>Sustainability Studies</u>, and <u>Climate Change Science and Policy</u>. The Environmental Science and Environmental Studies minors are only available to students not majoring in Environmental Science or Environmental Studies. The minors all consist of six courses. Other minors outside of ENV that may blend well with your ENV degree include: <u>Food Studies</u>, <u>Environmental Communications</u>, <u>Biological Sciences</u>, and <u>Geography</u>. Some students also elect to complete the undergraduate <u>Geographic Information Systems (GIS) Certificate</u> to broaden their technical skillset. Selecting a minor or certificate early makes it much easier to fit into your undergraduate career.

Can I transfer into Environmental Science and Environmental Studies from another major or university?

Yes, but we encourage you to talk as early as possible with an advisor. A considerable number of our ENV students have transferred in many credits from other colleges and universities. Many have transferred from majors other than environmental science or environmental studies. Because the number and types of courses transferred varies considerably, we strongly urge transfer students to see their academic advisors as soon as possible after they transfer into ENV so that we can make sure you are on track to take the proper courses, and so that we can establish an appropriate timeline for graduating from the department.

Despite the variations in courses that are transferred, students are encouraged to take as many courses as possible in sequence (for example, core courses before electives, all required courses before electives) to avoid taking more elementary or more required courses in their last few quarters at DePaul. Students should also pay particular note of the prerequisites suggested or required for their desired ENV electives, to ensure that they take the necessary background courses.

If you are a transfer student, you should meet with your academic advisor as soon as possible. Bring a complete list of the courses that have been transferred to DePaul, as well as any other transcripts or information relating to courses you think may not have transferred properly. If you think there are courses that were mis-assigned upon your transfer (e.g., ENV courses that were given credit as liberal studies courses or elective courses) be sure to bring a course description (and syllabus if possible) to your academic advisor when you meet so that the advisor can determine the proper placement of the course.

Students transferring from another major, or from backgrounds with little or no science courses, should realize that, especially for the ENV BS degree, it might take longer to complete the degree than expected due to the required sequencing of courses and the low number of free electives. In talking with your advisor, make sure that you both understand and are comfortable with any outlined timeline for completion of the ENV degree.

How can I declare Environmental Science or Environmental Studies as a major or a minor?

If you intend to graduate as an ENV major, or with an ENV minor, be sure that you are officially registered in the system through <u>Campus Connect</u> under Academic Records/Change College, Major or Minor. You should then start to receive the ENV weekly newsletter. If you do not have an academic faculty advisor or are not receiving the ENV weekly newsletter, please contact the ENV department office.

There are many interesting ENV courses for BA majors, but I am a BS degree student. Can I take any BA courses and apply them to a degree requirement?

Yes, Environmental Science BS students may take ENV courses in the 150-199 range for Learning Domain credit. The following courses may be of interest:

ENV Learning Domain Courses:

- ENV 150 Foundations of Environmental Studies (SCBI)
- ENV 151 Introduction to Environmental Sustainability (SCBI)
- ENV 152 Ecological and Social Economics (SCBI)
- ENV 160 Ideas of Nature (HI)
- ENV 165 National Parks History (HI)
- ENV 170 Environmental Ethics (PI)
- ENV 180 Issues in Environmental Design (AL)
- ENV 181 Landscape Architecture (AL)

SCBI: Social, Cultural, and Behavioral Inquiry; HI: Historical Inquiry; PI: Philosophical Inquiry; AL: Arts & Literature

Senior Thesis

The Environmental Science BS degree is unique among undergraduate science degrees at DePaul in having thesis research as part of the required curriculum. Thesis research is always directed by department faculty, sometimes in collaboration with scientists in other departments or in the community. Past research projects have explored the effectiveness of different ecological restoration strategies, the uptake of lead by plants in urban gardens, the removal of phosphorus in nearby wetlands, the impact of temperature and carbon dioxide on biogenic plant emissions and the effect of different kinds of messages on environmental attitudes and behavior. Many projects result in publications in *DePaul Discoveries*, the College of Science and Health's undergraduate research journal; others have resulted in publications in external scientific or professional journals. The experience gained through conducting research, from generating interesting questions and hypotheses to designing an experiment, collecting and analyzing data, and summarizing and presenting results is invaluable to students and to prospective graduate programs and employers.

BS majors must take ENV 360 Research Methods (4 credit hours) before they can complete their senior thesis. You should take ENV 360 Research Methods either your sophomore or junior year and at least two quarters and preferably three before graduation. In this class, you learn the general techniques for doing research and about the research interests of ENV faculty so you can craft your thesis topic and get matched with your thesis advisor. Students can also take ENV 361 Research in Environmental Science to fulfill their Experiential Learning credit and devote additional time to their research project. Students will register for ENV 362 Senior Thesis (2 credit hours) while doing their research project. Full details will be provided in the syllabus for ENV 362, and here is the timeline:

WQ Junior Year	SQ Junior Year	AQ Senior Year	WQ Senior Year	SQ Senior Year
ENV 360	ENV 362 (2-cr)	CSH Science	Submission to	ENV Spring
Identify advisor	Agree on	Showcase	DePaul	Symposium &
and project	project timeline	(preliminary	Discoveries	finish revisions
	with advisor	results)		

Note that you will receive an R (Research) grade for ENV 362 while your thesis is in progress. You can start working on your thesis with your advisor before ENV 362 appears on your transcript, but you should have a completed syllabus for ENV 362 which defines your timeline and research deliverables. Once you do enroll in ENV 362, you will receive an R grade until you complete the requirements. This is typically spring quarter of your final year when you present at the ENV Spring Symposium. You need to allow for multiple quarters, often including the summer, to complete your thesis research and writing. Additionally, you may become involved in faculty research before taking ENV 360. Then you can either complete two research projects or have extended time for your senior thesis research. However, you still must begin the sequence shown in the table above during your junior year.

Environmental Science (BS) timeline suggestion

Liberal Studies and General Elective slots are flexible and can be switched around relatively freely as needed. If math skills are a particular issue (e.g., you are assessed to take MAT 101), you should consider taking math pre-requisite courses freshman year, then taking General Chem and General Bio together in the second year.

	Autumn Quarter	Winter Quarter	Spring Quarter
YEAR 1	Explore/Disc Chicago	Focal Point	Human Impacts
	Comp/Rhetoric I	Comp/Rhetoric II	General Elective (or Math 131 as needed)
	General Bio ¹² I (L)	General Bio II (L)	General Bio III (L)
	LSP Learning Domain ³	LSP Learning Domain	LSP Learning Domain
YEAR 2	Ecology (L)	Earth Systems Science (L)	ENV Major Elective (L)
	General Elective	LSP Sophomore Seminar	General Elective
	General Chem I (L)	General Chem II (L)	General Chem III (L)
	LSP Learning Domain	LSP Learning Domain	LSP Learning Domain
	ENV 2 nd yr seminar*		
YEAR 3	ENV Major Elective (L)	Env Data Analysis (L)	ENV Allied Field Elective (L)
	General Elective	Research Methods	LSP Experiential Learning
	Calculus I	Calculus II	Calculus III
	LSP Learning Domain	LSP Learning Domain	LSP Learning Domain
YEAR 4	ENV Allied Field Elective (L)	ENV Major Elective (L)	ENV Allied Field Elective (L)
	Senior Thesis*	General Elective	Capstone
	Physics I (L)	Physics II (L)	Physics III (L)
	LSP Learning Domain	LSP Learning Domain	LSP Learning Domain

¹ The general biology and chemistry sequences can be taken in year 1 or 2. Taking biology first allows the flexibility to take either ENV 250 or BIO 215. Chemistry is typically the most challenging introductory sequence. Both sequences can also be started during the winter quarter, often called "off-sequence."

² If MAT 130 is required, take MAT 130 AQ in Year 1 and delay general biology until the WQ (off-sequence). MAT 130 will take the place of the general elective in AQ of Year 2.

³ ENV BS students can take ENV BA classes in the 150–199 range to fulfill Learning Domain requirements.

^{*} Two-credit course; (L) = course with laboratory section

Environmental Studies (BA) timeline suggestion

Liberal Studies and General Elective slots are flexible and can be switched around relatively freely as needed. Students should consider using courses early in their undergraduate career to sample from possible minor options. All Sustainability Concentration classes are a subset of the

Standard Concentration classes, so select accordingly.

	Autumn Quarter	Winter Quarter	Spring Quarter
YEAR 1	Explore/Disc Chicago	Foundations of Environmental Studies	Environmental Studies Science Elective
	Comp/Rhetoric I	Comp/Rhetoric II	General Elective
	MAT 120	LSP Learning Domain (MCD)	Focal Point
	LSP Learning Domain	LSP Learning Domain	LSP Learning Domain
YEAR 2	Applied Ecology (L)	Earth Systems Science (L)	Human Impacts
	Gen Elect/Language ⁴	Gen Elect/Language	Gen Elect/Language
	Environmental Studies Social Science Elective	LSP Sophomore Seminar	Environmental Studies Humanities Elective
	LSP Learning Domain	LSP Learning Domain	LSP Learning Domain
	ENV 2 nd yr seminar*		
YEAR 3	Ecological Economics	Environmental Chemistry (L)	Environmental Biology (L)
	General Elective	General Elective	General Elective
	Mixed Methods (L)	Environmental Studies Humanities Elective	LSP Experiential Learning
	LSP Learning Domain	LSP Learning Domain	LSP Learning Domain
YEAR 4	Environmental Studies Science Elective (L)	Environmental Studies Science Elective (L)	Capstone
	General Elective*	General Elective	General Elective
	Environmental Studies Humanities Elective	Environmental Studies Social Science Elective	Environmental Studies Social Science Elective
	LSP Learning Domain	LSP Learning Domain	LSP Learning Domain

⁴ See the information about the MLR

^{*} Two-credit course