

ENVIRONMENTAL SCIENCES

College of Arts and Sciences • Department of Environmental Sciences

Degrees Available at SIUE

- Bachelor of Arts in Environmental Sciences
- Bachelor of Science in Environmental Sciences

Specializations

- Environmental Health
- Environmental Management
- Environmental Toxicology

Environmental Sciences at SIUE

The environmental sciences undergraduate program in the College of Arts and Sciences at SIUE is interdisciplinary, and is designed to cultivate students' perspectives of environmental issues, and to provide them with refined knowledge of environmental issues on a local, regional and global scale. The curriculum within the Department of Environmental Sciences will increase students' technical competence in addressing these environmental issues, their origins, ramifications and resolutions. The program will promote experiential learning and professional education to prepare students for career opportunities in a wide variety of workplaces.

Career Opportunities

According to the U.S. Department of Labor, employment of environmental scientists and specialists is projected to grow 11 percent from 2014 to 2024, which is faster than the average for all occupations in the U.S. Graduates with a BS or BA degree in the specializations of environmental health, environmental toxicology and environmental management will have career opportunities in the areas of interest. For example, a licensed environmental health practitioner can be employed for inspection, sampling and reporting for sanitary, food safety, sewage and waste disposal, drinking water, pest control, or industrial hygiene.

Hands-On Learning

Students in environmental sciences have various opportunities to conduct research with faculty on diverse, multidisciplinary and cutting-edge topics in the fields of environmental biology, chemistry, toxicology, technology and environmental policy. Students are also encouraged to gain professional experience through community service, internships and other hands-on learning opportunities during their undergraduate studies.

Admission Requirements

The program's admission and prerequisites are consistent with the University's criteria. High school students who plan to major in one of the specializations in environmental sciences should complete at least three years of college preparatory mathematics (two years of algebra and one year of geometry), and one year each of chemistry and biology before entering the University. A fourth year of college preparatory mathematics (to include trigonometry) is strongly recommended.

Admission into the environmental sciences undergraduate program requires an application to declare a major. At the time of declaration students must select one of the three specializations and select a potential minor. Students may apply after they have completed their freshman year (or > 29 units). To be accepted into the program, students must have a cumulative GPA of 2.0 or greater, or approval of the program's admissions committee.

Transfer students follow the same procedures of admission and must meet the same criteria. Students who wish to be admitted with prerequisite course credits transferred from elsewhere must submit the following: (1) application, (2) official transcripts, and (3) course descriptions or syllabi (to ensure articulation agreements). This applies to both major and general education courses. A student who plans to take one or more classes from another institution and apply that credit to a SIUE degree should obtain prior approval for the courses from his/her academic advisor, to ensure the course is acceptable for program credit.



Faculty

Ben Greenfield, PhD
Assistant Professor

University of California - Berkeley

Nicholas Guehlstorf, PhD
Professor

Purdue University

Zhi-Qing Lin, PhD
Professor

McGill University

Adriana E. Martinez, PhD
Assistant Professor

University of Oregon

William Retzlaff, PhD
Distinguished Research Professor

Clemson University

Chris Theodorakis, PhD
Professor

University of Tennessee

Kyong Sup Yoon, PhD
Assistant Professor

University of Massachusetts - Amherst

SOUTHERN ILLINOIS UNIVERSITY
EDWARDSVILLE

COLLEGE OF ARTS & SCIENCES

Sample Curriculum-Bachelor of Science in Environmental Sciences-Specialization in Environmental Toxicology

	FALL SEMESTER	SPRING SEMESTER
YEAR 1	CHEM 121a General Chemistry (BPS) 4 CHEM 125a General Chemistry Lab (EL) 1 ENG 101 English Composition I (FW1) 3 MATH 150 Calculus I (FQR) 5 ACS 101 Public Speaking (FSPC) 3 Total Credits 16	BIOL 150 Biology I (BLS, EL) 4 CHEM 121b General Chemistry (BPS) 4 CHEM 125b General Chemistry Lab (EL) 1 ENG 102 English Composition II (FW2) 3 RA 101 Reasoning & Argumentation (FRA) 3 Total Credits 15
YEAR 2	BIOL 151 Biology II (BLS, EL) 4 CHEM 241a Organic Chemistry 3 ENSC 125 Topics of Environmental Health & Toxicology Breadth-Humanities (BHUM) 2 Breadth-Humanities (BHUM) 3 ECON 111 Principles of Macroeconomics (BSS) 3 Total Credits 15	BIOL 220 Genetics 4 CHEM 241b Organic Chemistry (BPS) 3 CHEM 245 Organic Chemistry Lab (EL) 2 STAT 244 Statistics (BICS) 4 Breadth-Fine & Performing Arts (BFPA) 3 Total Credits 16
YEAR 3	BIOL 350 Microbiology 4 ENSC 220 Principles of Environmental Sciences 3 ENSC 220L Principles of Environmental Sciences Lab 1 ENSC 325a Toxicants in the Environment 3 PHYS 131 College Physics I (BPS) 4 PHYS 131L College Physics I Lab (EL) 1 Total Credits 16	ENSC 325b Toxicants in the Environment 3 ENSC 330 Environmental Health & Waste Management 3 ENSC 499 Research in Environmental Sciences 1 IS 399 Environmental and Social Justice 3 PHYS 132 College Physics II (BPS) 4 PHYS 132L College Physics II Lab 1 Total Credits 15
YEAR 4	ENSC 402 Environmental Law (POLS 497) 3 ENSC 431 Environmental Toxicology 3 ENSC 431L Environmental Toxicology Lab 1 ENSC 498 Senior Project 1 ENSC Elective Course (432, 434, 435, 437, 473, 475) 6 Total Credits 14	ENSC 435 Ecological Risk Assessment 3 ENSC 436 Environmental Epidemiology 3 ENSC 490 Senior Assignment 1 ENSC Elective Course (432, 434, 435, 437, 475) 4 Elective 4 Total Credits 15

TRANSFER STUDENTS - To maximize your transfer experience, complete the **bolded** courses/requirements pre-transfer **AND** satisfy either the Illinois Articulation Initiative (IAI) General Ed Core or receive an AA, AS, or AAT (early childhood, special ed or math) degree from an IAI community college. If 'Minor' requirements are shown, discuss careful course selection with the academic advising contact. Transfer Credit Equivalency Guides are located at siue.edu/transfer.

Admission Requirements, Cont.

All international applicants are required to take either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) to demonstrate English proficiency. The TOEFL or IELTS must be taken within two years before the term for which admission is sought. Score requirements are: TOEFL 79 or higher on the Internet Based Test; 550 or higher on the Paper Test; IELTS: overall band score of 6.5 or higher.

To declare for the undergraduate major in environmental sciences, students need to contact the Environmental Sciences Program Office to schedule an initial advising appointment. The Program Director/delegate will assist students with their paperwork.

Graduation Requirements

To earn a Bachelor of Arts or Bachelor of Science degree in environmental sciences, the following conditions must be met:

- Earn a minimum of 120 hours of acceptable credit with a cumulative grade point average (GPA) of 2.0 or higher on a 4.0 scale.
- Complete the minimum number of credit hours required for the particular specialization.

- Complete at least 12 hours of SIUE credit in ENSC courses numbered above 299 with a cumulative GPA of 2.0 or higher.
- Earn a grade of C or better in all required ENSC courses.
- Earn a cumulative GPA of 2.0 or greater in major courses.
- Complete at least six (6) hours of credit in major courses numbered above 299 within two (2) years preceding graduation.

Contact Information

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