

ENVIRONMENTAL SCIENCE, B.S.

The environmental science program at Saint Louis University focuses on developing a scientific understanding of Earth's natural systems and their interconnections with human society. The SLU program represents a collaboration between several departments to provide a degree opportunity that bridges traditional academic boundaries. The Department of Earth, Environmental and Geospatial Science hosts the program, and provides student advising and mentoring.

Environmental science encompasses the study of Earth's environment, comprising the geosphere, hydrosphere, atmosphere and biosphere, with emphasis on human interactions with these spheres. Students will learn how these spheres interact in the natural world, how human activities influence the environment, and how the ever-changing environment affects people. The environmental science program is designed so that students first gain a thorough foundation of knowledge in all spheres and then focus on one or more subdisciplines, such as soil, water, energy, or climate change. The breadth-plus-depth structure of the program prepares students for advanced study toward M.S. or Ph.D. programs in scientific disciplines, professional schools such as law or public health, or for immediate employment in industry or government.

Curriculum Overview

The environmental science curriculum is built upon a breadth-plus-depth model that combines a comprehensive background in the natural sciences with specialized training in a chosen area of interest. All students entering the environmental science program are required to complete a core set of preparatory and skill-development courses that provide a rigorous introduction to the environmental sciences.

Students then choose a specialized track that provides more advanced instruction in a specific discipline germane to environmental science. The track requirements are individually defined by the collaborative departments and are roughly equivalent to completing a minor in the specific area of interest. All students are encouraged to complete an internship or a capstone project.

Although students in the program will take many of their upper-division classes in other departments, all students within the program have full access to departmental resources, including excellent computer and research laboratories, field- and laboratory-based research opportunities with department faculty, departmental field trips and internship opportunities in the St. Louis area. Opportunities for research and field experiences in biology and chemistry are also available to qualified students.

Fieldwork and Research Opportunities

Weekend field trips, canoe trips and social events are scheduled throughout the year. One perk associated with this major is the opportunity to join other faculty and students on annual, weeklong field trips across the country. Visit environmentally important sites and get to know the faculty, other students and alumni who join the trips.

Undergraduate students in the environmental science program can pursue internship opportunities through the host department or in collaboration with other departments on campus. Students can also participate in a capstone project designed to provide a real-world perspective during their undergraduate training. In addition, students may

participate in faculty research projects, many of which include funding specifically to support the participation of undergraduate students.

Careers

Demand for graduates with a comprehensive knowledge of natural systems and their interactions is strong and projected to increase in the face of greater public awareness of the influence of humans on the natural environment. With judicious planning, the program serves as excellent preparation for graduate degrees in medicine, the sciences, law and other disciplines where a strong background in environmental science is desirable.

Admission Requirements

Begin Your Application (<https://www.slu.edu/apply.php>)

Saint Louis University also accepts the Common Application and the Coalition Application.

Freshman

All applications are thoroughly reviewed with the highest degree of individual care and consideration to all credentials that are submitted. Solid academic performance in college preparatory coursework is a primary concern in reviewing a freshman applicant's file.

To be considered for admission to any Saint Louis University undergraduate program, applicants must be graduating from an accredited high school, have an acceptable HiSET exam score or take the General Education Development (GED) test.

Transfer

Applicants must be a graduate of an accredited high school or have an acceptable score on the GED or HiSET.

Students who have attempted fewer than 24 semester credits (or 30 quarter credits) of college credit must follow the above freshman admission requirements. Students who have completed 24 or more semester credits (or 30 quarter credits) of college credit must submit transcripts from all previously attended college(s).

In reviewing a transfer applicant's file, the Office of Admission holistically examines the student's academic performance in college-level coursework as an indicator of the student's ability to meet the academic rigors of Saint Louis University. Where applicable, transfer students will be evaluated on any courses outlined in the continuation standards of their preferred major.

International Applicants

All admission policies and requirements for domestic students apply to international students along with the following:

- Demonstrate English Language Proficiency (<https://catalog.slu.edu/academic-policies/office-admission/undergraduate/english-language-proficiency/>)
- All academic records must include an English translation. An official course-by-course transcript evaluation may be required and accepted.

Tuition

Tuition/Fee	Cost Per Year
Undergraduate Tuition	\$58,960
University Fees	\$1,000

Additional charges may apply. Other resources are listed below:

Net Price Calculator (<https://www.slu.edu/financial-aid/tuition-and-costs/calculator.php>)

Cost of Attendance (<https://www.slu.edu/financial-aid/tuition-and-costs/cost-of-attendance.php>)

Information on Tuition and Fees (<https://catalog.slu.edu/academic-policies/student-financial-services/tuition/>)

Miscellaneous Fees (<https://catalog.slu.edu/academic-policies/student-financial-services/fees/>)

Information on Summer Tuition (<https://catalog.slu.edu/academic-policies/student-financial-services/tuition-summer-current/tuition-summer-current.pdf>)

Scholarships and Financial Aid

There are two principal ways to help finance a Saint Louis University education:

- **Scholarships:** Scholarships are awarded based on academic achievement, service, leadership and financial need.
- **Financial Aid:** Financial aid is provided through grants and loans, some of which require repayment.

Saint Louis University makes every effort to keep our education affordable. In fiscal year 2025, 99.6% of first-time freshmen and 92% of all students received financial aid (<https://www.slu.edu/financial-aid/>) and students received more than \$517 million in aid University-wide.

For priority consideration for merit-based scholarships, apply for admission by Dec. 1 and complete a Free Application for Federal Student Aid (FAFSA) by Feb. 1.

For more information on scholarships and financial aid, visit the Office of Student Financial Services (<https://www.slu.edu/financial-aid/>).

Learning Outcomes

1. Graduates will know the founding principles in their field of study, as well as the facts and content appropriate to the field.
2. Graduates will be able to use their knowledge to reason about issues in their discipline.
3. Graduates will be able to solve quantitative problems in their discipline.

Requirements

Environmental science students must complete a minimum total of **79 credits** for the major.

Code	Title	Credits
University Undergraduate Core (https://catalog.slu.edu/academic-policies/academic-policies-procedures/university-core/)		32-35
Major Requirements		79
<i>Environmental Foundations</i>		
EAS 1430 & EAS 1435	Introduction to the Solid Earth and Introduction to the Solid Earth Lab	4

EAS 1080 & EAS 1081	Introduction to Environmental Science and Introduction to Environmental Science Laboratory	4
EAS 1030 & EAS 1035	Introduction to the Atmosphere and Ocean and Introduction to the Atmosphere and Ocean Lab	4
EAS 2450	Communicating in Science	3
GIS 4010	Introduction to Geographic Information Systems	3
BIOL 1240 & BIOL 1245	General Biology: Information Flow and Evolution and Principles of Biology I Laboratory	4
BIOL 1260 & BIOL 1265	General Biology: Transformations of Energy and Matter and Principles of Biology II Laboratory	4
CHEM 1110 & CHEM 1115	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1120 & CHEM 1125	General Chemistry 2 and General Chemistry 2 Laboratory	4
MATH 1510	Calculus I	4
STAT 1300 or STAT 3850	Elementary Statistics with Computers Foundation of Statistics	3
PHYS 1310 & PHYS 1320 or PHYS 1610 & PHYS 1620	College Physics I and College Physics I Laboratory University Physics I and University Physics I Laboratory	4
<i>Environmental Science Requirements</i>		
EAS 4140	Soil Science	3
EAS 4410 & EAS 4415	Hydrology and Hydrology Lab	4
BIOL 3070	General Ecology	3
Major Elective Courses		
<i>Environmental Synergies</i>		
Select 6 credits from courses with the "Environmental Synergies" attribute.		6
<i>Environmental Science Electives</i>		
Select 12 credits from courses with the "Environmental Science Elective" attribute.*		12
<i>Environmental Issues and Society Electives</i>		
Select 3 credits from courses with the "Environmental Issues and Society" attribute.		3
<i>Experiential Learning</i>		
Select 3 credits with the "Environmental Experiential Learning" attribute.		3
General Electives		6-9
Total Credits		120

* At least 6 credits in EAS.

Non-Course Requirements

All School of Science and Engineering B.A. and B.S. students must complete an exit interview/survey near the end of their bachelor's program.

Continuation Standards

Students must maintain a minimum of a 2.00 GPA and obtain a C- or better grade in their Earth, environmental, and geospatial major courses and required related credits (e.g., biology, chemistry, mathematics, physics). Students whose overall GPA falls below 2.00 will be placed on academic probation. Students who do not obtain a C- or better in a designated prerequisite course must retake the course and will not be permitted to progress to subsequent courses.

Roadmap

This roadmap is just one example of a semester-by-semester plan of study for this program. There are other plans students can and do take. The plan of study for each particular student is established in consultation with each student's academic advisor; *this roadmap does not replace academic advising appointments.*

Roadmap notes:

- This Roadmap assumes full-time enrollment unless otherwise noted.
- Courses/Milestones marked with an "!" are critical and must be completed in the semester listed in the Roadmap to ensure a timely graduation.
- Course availability and sequencing are subject to change.

Course	Title	Credits
Year One		
Fall		
EAS 1430 & EAS 1435	Introduction to the Solid Earth and Introduction to the Solid Earth Lab	4
BIOL 1240 & BIOL 1245	General Biology: Information Flow and Evolution and Principles of Biology I Laboratory	4
University Core and/or General Electives		7
Credits		15
Spring		
EAS 1030 & EAS 1035	Introduction to the Atmosphere and Ocean and Introduction to the Atmosphere and Ocean Lab	4
BIOL 1260 & BIOL 1265	General Biology: Transformations of Energy and Matter and Principles of Biology II Laboratory	4
STAT 1300 or STAT 3850	Elementary Statistics with Computers or Foundation of Statistics	3
University Core and/or General Electives		4
Credits		15
Year Two		
Fall		
EAS 1080 & EAS 1081	Introduction to Environmental Science and Introduction to Environmental Science Laboratory	4
EAS 2450	Communicating in Science	3
CHEM 1110 & CHEM 1115	General Chemistry 1 and General Chemistry 1 Laboratory	4
MATH 1510	Calculus I	4
Credits		15

Spring		
CHEM 1120 & CHEM 1125	General Chemistry 2 and General Chemistry 2 Laboratory	4
Environmental Synergies Elective		3
University Core and/or General Electives		8
Credits		15
Year Three		
Fall		
BIOL 3070	General Ecology	3
PHYS 1310 & PHYS 1320 or PHYS 1610 and PHYS 1620	College Physics I or University Physics I and University Physics I Laboratory	4
Environmental Synergies Elective		3
University Core and/or General Electives		5
Credits		15
Spring		
GIS 4010	Introduction to Geographic Information Systems	3
Environmental Issues and Society Elective		3
Environmental Science Elective		3
University Core and/or General Electives		6
Credits		15
Year Four		
Fall		
EAS 4410 & EAS 4415	Hydrology and Hydrology Lab	4
Environmental Science Electives		6
University Core and/or General Electives		5
Credits		15
Spring		
EAS 4140	Soil Science	3
Environmental Science Elective		3
Environmental Experiential Learning Elective		3
University Core and/or General Electives		6
Credits		15
Total Credits		120

Contact Us

For more information about this or other undergraduate programs within the Department of Earth, Environmental, and Geospatial Science, please email eegsugdirector@slu.edu.