



Through laboratory-oriented multi-disciplinary coursework in the Environmental Science program, students will gain a broad and integrated knowledge base of the basic sciences as well as knowledge of issues focusing on environmental integrity, sustainable resources and ecological problems.

ENVIRONMENTAL SCIENCE

Program Description

The Associate in Science (A.S.) degree program in Environmental Science at Erie Community College's North Campus is an interdisciplinary program designed to provide students with the knowledge and technical experience needed to transfer to a four-year degree program in Environmental Science, Environmental Biology, or Environmental Studies. Through laboratory-oriented multi-disciplinary coursework, students will gain a broad and integrated knowledge base of the basic sciences as well as knowledge of issues focusing on environmental integrity, sustainable resources, and ecological problems. With coursework in biology, chemistry, physics, geology, mathematics and environmental science, students will acquire a solid background in ecosystems, biodiversity and conservation. The Environmental Science program at ECC compliments other SUNY offerings, providing students with a strong foundation for transfer to four-year educational institutions.

Transferability

The mission of Erie Community College is to provide university parallel degree programs for students aspiring to baccalaureate degrees and related professions. Graduates of Environmental Science will be well-positioned to transfer to other educational institutions offering degrees in Environmental Science, Environmental Studies, Environmental Biology and the Natural Sciences. Currently, these include: B.S. or B.A. in Environmental Studies at the University of Buffalo and at the SUNY College of Environmental Science and Forestry at Syracuse for the B.S. Degree in Environmental Science or B.S. in Environmental Biology. Additional articulation agreements are in process of development with other public and private colleges for transfer.

Admission Requirements

A high school diploma or GED is a basic requirement. It is necessary that the student have a background in elementary algebra. The student should have taken college preparatory courses in high school in mathematics (algebra and trigonometry) and chemistry. All students seeking matriculation are required to take the mandatory placement test and achieve a test score in English which qualifies them to take EN110 College Composition and to take MT125 College Mathematics. Students who have taken the New York State Regents English III with a score of 85 or higher are considered to be prepared for EN110.

Service learning courses in the Environmental Science curriculum will provide a practical experience for students to learn while contributing to their communities. Students will participate in organized curricular projects that address community needs while enhancing their academic knowledge and skills and fostering civic responsibility. Targeted ECC's Environmental Science courses will provide students with the opportunity to:

- Use the knowledge and technical skills from one or more Environmental Science courses to identify and address community problems;
- Collaborate with peers and community members to establish and achieve goals; and
- Develop skills and professional attitudes beneficial for the workplace and for participating in civic affairs.

Program Competencies

Upon graduation with an Associate in Science in Environmental Science the graduate will be able to:

- Enter, with junior standing, one of many SUNY colleges, provided grades are acceptable
- Apply scientific principles, identify the technologies and determine their efficiency and its impact on environmental problems
- Attack environmental problems and propose solutions focusing on environmental integrity, sustainable resources and ecological solutions
- Conduct and write laboratory tests/experiments in a clear and concise manner using proper communication skills
- Utilize developed mathematic skills and physical concepts applied to environmental problem solving
- Explain how the choices and tradeoffs posed by environmental challenges are connected to an individual's personal decisions
- Develop an appreciation for the non-technical human aspects of environmental issues

Degree: Associate in Science (A.S.)

Hegis Code: 5619 CIPS code; 03.0104 (Environmental Science)

Curriculum Code: _____

Total Degree Credits: 65.0

Campus Location: North Campus

Liberal Arts Division

CURRICULUM

	First Year, Fall Semester
EN 110	College Composition (3 cr)
MT 125	College Mathematics (4 cr)
GL 160	Physical Geology (4 cr)
GL 161	Laboratory for GL 161 (0 cr)
PH 120	Environmental Science (3 cr)
PH 121	Laboratory for PH 120 (1 cr)

	First Year, Spring Semester
EN 111	Composition and Interpretation of Literature (3 cr)
BI 110	Biology I (3 cr)
BI 115	Laboratory for BI 110 (1.5 cr)
CH 180	University Chemistry I (3 cr)
CH 181	Laboratory for CH 180 (1.5 cr)
PH 270	College Physics I (4.5 cr)
PH 271	Laboratory for PH 270 (0 cr)

	Second Year, Fall Semester
BI 112	Biology II (3 cr)
BI 117	Laboratory for BI 112 (1.5 cr)
CH 182	University Chemistry II (3 cr)
CH 183	Laboratory for CH 182 (1.5 cr)
PH 272	College Physics II (4.5 cr)
PH 273	Laboratory for PH 272 (0 cr)
_____	Social Science Elective (3 cr)

	Second Year, Spring Semester
MT 143	Introductory Statistics I (4 cr)
CH 116	Chemistry and the Environment (3 cr)
PH 122	Environmental Science II (3 cr)
PH 123	Laboratory for PH 122 (1 cr)
PH 130	Alternative Energy (3 cr)
_____	Social Science Elective (3 cr)