

ENVIRONMENTAL TECHNOLOGY

Associate in Applied Science Degree | Career Program

Department of Chemistry, Earth Sciences, and Environmental Sciences

Program Description

This competency-based curriculum provides state-of-the-art training for careers in environmental technology. Environmental Technology utilizes the principles of science, engineering, communications and economics to protect and enhance safety, health and natural resources.

All credits from this program may be transferred to Medgar Evers College for a bachelor's degree in Environmental Health. Students interested in transferring to the Environmental Engineering program at City College should see Dr. Neal Phillip. The program articulates with SUNY Empire State. See the Transfer Planning website for more details.

Please note that this program is not currently accepting new students.

Learning Outcomes

Upon successful completion of the Environmental Technology program requirements, students will be able to:

1. Demonstrate the ability to assess scientific concepts and data, consider likely social dynamics, and establish integral cultural contexts when encountering environmental problems.
2. Demonstrate intellectual flexibility necessary to view environmental questions from multiple perspectives, and be prepared to alter their thought process as they learn new ways of understanding.
3. Communicate foundational knowledge necessary for success in the field through one or more venues, such as participation in a STEM-related conference.
4. Demonstrate the abilities to gather and to assess environmental data collected in the field and write scientific reports on their findings.
5. Demonstrate a working knowledge of instrumentation, such as FT-IR, NMR, GC/MS, HPLC, Ion Chromatograph, Spectrofluorimeter, UV/Vis Spectrophotometer, 3D printers, and Picarro Greenhouse gas monitor for water, air and soil analysis.
6. Demonstrate competence in the use of software used in digital design.

ENVIRONMENTAL TECHNOLOGY CURRICULUM (PATHWAYS)

60 Credits required for AAS Degree

Curriculum Coordinator: Dr. Cheila Cullen

Required Core

A. English Composition

- ENG 110 English Composition I: Fundamentals of Writing and Rhetoric *OR* ENG 111 English Composition I: Writing and Rhetoric (3 Credits)

B. Mathematical and Quantitative Reasoning

- MTH 23¹ Probability and Statistics (3 Credits)

C. Life and Physical Sciences

- CHM 17² Fundamentals of General Chemistry (4 Credits)

Flexible Core

A. World Cultures and Global Issues

- HIS 10 History of the Modern World *OR* HIS 11 Introduction to the Modern World (3 Credits)

D. Individual and Society

- COMM 11 Fundamentals of Interpersonal Communication (3 Credits)

E. Scientific World

- CHM 18² Fundamentals of General Chemistry II (4 Credits)

Additional Flexible Core Requirement – Area E.

- BIO 11 General Biology I (4 Credits)

SUBTOTAL 24

Major Requirements

- BIO 12 General Biology II (4 Credits)
- DAT 33³ Microcomputer Applications (2 Credits)
- ENG 223⁴ Scientific and Technical Writing (3 Credits)
- ENV 11 Introduction to Environmental Health (4 Credits)
- ENV 12 Environmental and Occupational Regulations (4 Credits)
- ENV 23 Environmental Toxicology (3 Credits)

- ENV 31 Water Chemistry and Pollution (4 Credits)
- ENV 32 Atmospheric Chemistry and Pollution (4 Credits)
- MTH 13¹ Trigonometry and College Algebra (3 Credits)
- PHY 11 College Physics I (4 Credits)
- Restricted Elective⁵ (1 Credit)

SUBTOTAL 36

¹ Students intending to transfer to four-year programs in Environmental Science and Environmental Engineering should take MTH 30 and MTH 31 in lieu of MTH 13 and MTH 23.

² Students intending to transfer to four-year programs in Environmental Science and Environmental Engineering should take CHM 11 and CHM 12 in lieu of CHM 17 and CHM 18.

³ Students can substitute CHM 38 for DAT 33.

⁴ Students can substitute ENG 112 for ENG 223.

⁵ Students can take ART 10 or MUS 10, or WFA 10 or any PEA one credit course. Students who intend to transfer should choose ART 10 or MUS 10 or any PEA one credit course.

