# TECHNOLOGY STUDIES: ENVIRONMENTAL SCIENCE, AS

**Program code**: ENVS-AS-COT

**Location**: Norwalk, Quinebaug Valley, Three Rivers

## Program Description

As part of the Connecticut College of Technology (COT), the Technology Studies A.S. degree provides the knowledge and skills within specific high-demand technology fields. The program consists of lecture and lab course work in engineering, technology, industrial technology, mathematics, sciences, and foundational requirements that provide a solid comprehensive background for continuation in a four-year technology degree program or entry into the workforce. Upon completion of a Technology Studies A.S. degree, students can transfer to Central CT State University or the University of Hartford to complete designated B.S. degrees.

The Technology Studies: Environmental Science degree prepares individuals for careers in Connecticut's growing environmental science industry.

**Program Learning Outcomes**

1. Apply mathematical, scientific and technological principles and concepts to identify and formulate solutions to technical problems.
2. Apply critical thinking and problem-solving skills to solve technical problems.
3. Demonstrate the ability to function on teams.
4. Recognize the need to engage in life-long learning.

### Environmental Science Learning Outcomes

In addition to the outcomes listed for the Technology Studies degree, students who complete the Environmental Science Option will:

1. Develop an understanding of the scientific basis for issues affecting the environment and their impact on society.
2. Understand and be skilled at collecting, analyzing and presenting scientific data by various means including up-to-date technologies.
3. Be able to use the scientific method for problem solving in biology, chemistry, physics and environmental sciences, and be able to use this skill to address issues related to the environment.
4. Research and assess the accuracy of appropriate information sources, involving both print literature and electronic sources including online databases and publications.
5. Communicate knowledge and understanding of environmental sciences and related societal issues in appropriate written, oral and mathematical means.
6. Demonstrate interrelationships and connections with other subject areas associated with a college-level education.
7. Use a wide array of knowledge, principles and skills acquired in laboratory, field and lecture setting for use in transferring to baccalaureate degree program or for use in seeking further training toward a technical degree.
8. Develop skills in biology, ecology, and environmental chemistry.
9. Develop an understanding of an ability to carry out microbiological testing of drinking and waste sewage.

## Degree Requirements

| Code | Title | Credits |
|---|---|---|
| **Technology Studies General Education Core** | | |
| ENG 1010 | Composition | 3 |
| MATH 1610 | Precalculus | 4 |
| ART Elective (course vetted for ARHX) | | 3 |
| CHEM 1110 | Concepts of Chemistry | 4 |
| or CHEM 1210 | General Chemistry I | |
| Elective HISX - Historical Knowledge Course or Elective SBSX course in ECON | | 3 |
| ENG 1080 | Composition II: Technical Writing | 3 |
| or COMM 1301 | Public Speaking | |
| CCS 1001 | College and Career Success | 3 |
| **Technology Studies Program Core** | | |
| PHYS 1201 | General Physics I | 4 |
| or PHYS 2201 | Calculus-Based Physics I | |
| Elective BHEL - Behavioral Science Elective - choose an ANTH, PSY or SOC course | | 3 |
| MATH 1200 | Statistics I | 3-4 |
| or MATH 1201 | Statistics I with Computer Applications | |
| **Environmental Science Courses** | | |
| BIO 1220 | General Biology II | 4 |
| ECON 1002 | Principles of Microeconomics | 3 |
| PHIL 1101 | Ethics | 3 |
| ENV 1010 & 1010L | Introduction to Environmental Science and Introduction to Environmental Science Lab | 4 |
| COMM 1301 | Public Speaking | 3 |
| Choose three of the following Environmental Science electives: [1] | | 12 |
| BIO 1210 | General Biology I | |
| BIO 2700 | Ecology | |
| CHEM 1220 | General Chemistry II | |
| GEOL 1200 | Introduction to Physical Geology | |
| MATH 2600 | Calculus I | |
| PHYS 1202 | General Physics II | |
| or PHYS 2202 | Calculus-Based Physics II | |
| **Total Credits** | | **62-63** |

[1] Choices to be made with an Advisor based upon the student's desired transfer institution and baccalaureate degree plans.