

TECHNOLOGY STUDIES: ENGINEERING TECHNOLOGY, AS

Program code: ENTE-AS-COT

Location: Asnuntuck, Capital, Housatonic, Manchester, Northwestern, Norwalk, Quinebaug Valley, Tunxis

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 - Engineering Technology Option associate degree program prepares students primarily to transfer to complete a B.S. degree in civil, mechanical, manufacturing, composite, or computer engineering technology. Graduates will receive a background in mathematics, science, and general education courses for transfer into a four-year program. Careers in this field include jobs in quality control of industrial products, electrical system testing and diagnostics, computer modeling of essential infrastructure, robotic technology, and remediation of environmental hazards. A grade average of 'B' with no grade less than 'C', and completion of the full program is required for continuation as a junior in CCSU's School of Technology or at Charter Oak State College.

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.

Engineering Technology Learning Outcomes

In addition to meeting the Technical Studies outcomes students successfully completing this option will:

1. Transition seamlessly into a Bachelor of Science Degree Program in Engineering Technology with junior level status in the receiving institution as part of the Engineering Technology Pathway Program.
2. Apply appropriate mathematical and scientific principles to engineering and technology applications.
3. Analyze and resolve technology problems.
4. Apply knowledge and skills to develop, interpret, and select appropriate technological processes.
5. Assist in research, development, design, production, testing and various other functions associated with engineering.
6. Identify and apply engineering principles/concepts.
7. Apply mathematical concepts.

8. Demonstrate the ability to think through a problem in a logical manner.
9. Organize and carry through to conclusion the solution to a problem.
10. Apply good communication skills.
11. Work in teams.

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 | |
| Engineering Technology Courses | | |
| Choose a CAD Elective or Technical Drafting | | 3 |
| PHYS 1202 | General Physics II | 4 |
| or PHYS 2202 | Calculus-Based Physics II | |
| MFG 2439 | Geometric Dimension and Tolerancing (G, D, and T) | 3 |
| Choose one of the following: | | 3-4 |
| CHEM 1220 | General Chemistry II | |
| EGR 2221 | Introduction to Electrical Circuit Analysis | |
| EGR 2212 | Engineering Dynamics | |
| EETA 2052 | Digital Electronics | |
| MATH 2600 | Calculus I | 4 |
| MATH 2610 | Calculus II | 4 |
| EGR 2211 | Engineering Statics | 3 |
| Choose 2 specialization electives from these disciplines: BIO, CAD, CHEM, CSC, CST, DAT, EET, EGR, ENVIS, GIS, GEOL, MATH, MECH, MFG, OCEN, PHYS, or TECH | | 6-8 |
| Total Credits | | 63-67 |