

# TECHNOLOGY STUDIES: INDUSTRIAL TECHNOLOGY, AS

Program code: INTC-AS-COT

Location: Manchester

## 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: Industrial Technology associate degree program prepares students primarily to transfer to complete a B.S. degree in automotive, construction management, environmental safety, electrical engineering, manufacturing and energy. 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 industrial design, occupational health and safety, sustainable energy generation/transmission, lean manufacturing analysis, and laser technicians. 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.

## 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.

## Industrial 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 Industrial Technology with junior level status in the receiving institution as part of the Technology Studies Pathway Program.
2. Assist in research, development, design, production, testing and various other functions associated with engineering.
3. Apply appropriate mathematical and scientific principles to engineering and technology applications.
4. Identify and apply engineering principles/concepts.
5. Analyze and resolve technology problems.
6. Apply knowledge and skills to develop, interpret, and select appropriate technological processes.
7. Demonstrate the ability to think through a problem in a logical manner.

8. Organize and carry through to conclusion the solution to a problem.
9. Apply good communication skills.
10. Work in teams.

## Degree Requirements

Code	Title	Credits
<b>Technology Studies General Education Core</b>		
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
<b>Technology Studies Program Core</b>		
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	
<b>Industrial Technology Courses</b>		
CAD Elective		3
EGR 1110	Introduction to Engineering	3
Choose one of the following:		3-4
ENV 1800	Sustainable Energy and the Environment	
Any MFG course		
Specialization Electives - Choose with guidance of advisor		18
Choose one of the following:		3-4
CSC 1201	Introduction to Programming	
CSC 1203	Python Fundamentals	
CSC 2214	C++ Programming	
CSC 1211	Java I	
CSC 2212	Java II	
EGR 1115	Programming for Engineers	
EGR 2201	MATLAB for Engineers	
EGR 2230	C++ for Engineering	
<b>Total Credits</b>		<b>63-66</b>