

TECHNOLOGY STUDIES: ENERGY MANAGEMENT, AS

Program code: ENMG-AS-COT

Location: Tunxis

Program Description

The CT State Community College of Technology Pathways program Associate of Science Degree in Energy Management curriculum offers a unique two-year technical training program that prepares you for a rewarding career in commercial/industrial building energy analysis and management. Students evaluate energy use patterns; develop, implement, market and maintain conservation programs; perform public outreach; recommend energy efficiency techniques; integrate alternative energy sources; and perform systems analysis to solve problems. You will apply physics and analytical techniques to measure and define energy use of today's building systems with the goal of evaluating and recommending alternative energy solutions that will result in greater energy efficiency and lower energy costs. Students need no prior experience to succeed in the program. The program also includes a solid core of courses in general education. All credits directly transfer to Central Connecticut State University (CCSU). Successful completion of the program allows students to enter their junior year at CCSU.

Read about the origins of the Energy Management Program in this Hartford Business Journal article.

Technology Studies Student 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.

Energy Management Student Learning Outcomes

1. Demonstrate a basic understanding of energy, its measurement and varied approaches to conserving/saving.
2. Demonstrate a basic understanding of commercial building systems and be able to explain their operation, interactions, and their energy use.
3. Perform energy analysis on potential conservation measures in commercial/industrial settings, and incorporate both conceptual and technical understanding in their project reports.
4. Demonstrate an increased proficiency with spreadsheets, charts, and graphs in Excel.
5. Practice technical writing and oral skills and will create technical documents.

Additional information about the Energy Management program and careers in the field can be found in the FAQ document linked here.

The graduation requirements to earn this certificate are described in this catalog's Academic Policies & Procedures.

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	
Energy Management Courses		
CAD 1330	2D CAD (AutoCAD)	3
NRG 1101	Introduction to Energy and Systems	3
NRG 1122	Commercial HVAC Systems and Analysis	3
NRG 1123	Energy Efficiency Methods	3
NRG 1130	Applied Renewable Energy Systems	3
NRG 1132	Industrial Energy Systems	3
NRG 1133	Lighting Fundamentals and Applications	3
NRG 2241	Commercial Energy Use Analysis and Simulations	3
NRG 2242	Energy Accounting	3
Total Credits		60-61

- Technology Studies: Energy Management Certificate