Energy Management
Associate of Applied Science

Energy Management program teaches students construction techniques and the ability to analyze energy production and consumption, and to recommend appropriate improvements to increase efficiencies in residential and light commercial construction.

The curriculum includes the construction foundation necessary for understanding residential energy efficiencies. The program teaches home auditing skills and solar, photovoltaic, and geothermal energy options. Students will have the opportunity to receive the OSHA 10 Safety certification as well as The Building Performance Institute, Inc.’s Building Analyst Certification along with the National Center for Construction Education and Research’s Core Curriculum and Carpentry Fundamentals Level One credentials.

The curriculum for the photovoltaic systems course and the solar hot water and heat systems course were developed using competencies provided by the North American Board of Certified Energy Practitioners.

Prerequisites
Full-time, degree-seeking students will need to demonstrate proficiencies in reading, English, and mathematics based on the COMPASS assessment test, ACT or SAT scores.

General Education (GE) Courses
The associated of applied science degree in energy management requires the following general education courses: English Composition I, Interpersonal Communication, other general education courses selected from communication, math, science, social or behavioral science, arts and humanities, or physical education. Computer literacy proficiency must be proven through a course or test-out. Some students may be required to take First Year Seminar.

Program Outcomes
1. Evaluate energy use residential and commercial structures.
2. Understand traditional energy sources.
3. Understand sustainable energy sources.
4. Demonstrate an understanding of energy monitoring equipment.
5. Measure costs associated with energy usage.
6. Demonstrate the ability to analyze efficient water use.
7. Evaluate energy consuming appliances, lighting, HVAC.
8. Demonstrate the ability to analyze indoor environmental quality.
9. Develop data collection skills.
10. Demonstrate the ability to analyze data and make sound conclusions.

11. Make energy efficiency and energy cost savings recommendations.
12. Demonstrate the ability to construct technical reports and presentations.
13. Demonstrate the ability to install and test appropriate energy saving systems.

Sequence of Courses
(Fall) Semester I
* CMCT 105 OSHA 10 Safety Orientation 1
* CMCT 106 Introduction to Craft Skills 3
* CMCT 107 Carpentry Basics 4
* ENRG 100 Introduction to Energy Management 3
ENGL 101 English Composition I 3
PSYC 100 First Year Seminar 1
Total 15

(Spring) Semester II
* CMCT 110 Floors, Walls & Ceiling Framing 4
* CMCT 111 Roof Framing 3
* CMCT 112 Windows, Doors and Stairs 3
* ETEC 115 Blueprint Reading 3
* MATH 114 Industrial Math 3
Total 16

(Fall) Semester III
* ENRG 101 Building Analyst/Auditor 3
* ENRG 106 Residential HVAC Systems Analysis 3
* SUST 102 Electrical Theory I 3
COMM213 Interpersonal Communication 3
CSIS 100 Computer Concepts and Applications 3
General Education Course 3
Total 18

(Spring) Semester IV
* SUST 104 Photovoltaic Systems 3
* SUST 204 Solar Hot Water and Heat Systems 3
* SUST 230 Geothermal Systems 3
General Education Course 3
General Education Course 3
Total 15

Total AAS Degree Program Credits 64
*Total Certificate Program Credits 42

For more information contact:
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