Sustainable Energy

Degree Type
Certificate

The Sustainable Energy Certificate is designed to provide focused training in the breadth of issues that confront our society in its need for clean, affordable and reliable energy while using the specific energy principles surrounding wind and solar energy for honing planning, critical thinking, and problem solving skills.

Learn more about the program and apply at Sustainable Energy Certificate

Requirements

Item #	Title	Credits
ENV165	Renewable Energy, Climate & Careers	3
ENV173	Introduction to Solar Energy	3
ENV177	Introduction to Wind Energy	3
	Total Credits	**9**

Career Outlook

According to the U.S. Bureau of Labor Statistics, employment of PV installers are projected to be in demand with a projected growth of 50% from 2019-2029. Wind techs are also expected to grow very fast (60.7 %) over the 2019–29 decade. Both occupations are among the fastest growing occupations from 2019–29. However, because they are both small occupations, this fast growth will only result in a total of about 10,400 new jobs over the projections period.

This occupational profile is provided by O*NET.

Program Outcomes

Upon successful completion of the Sustainable Energy certificate, students are able to:

- Describe basic energy concepts, laws, and theories.
- Compare and contrast conventional energy systems and technologies, historical trends, and societal benefits.
- Conduct economic and environmental analysis of energy efficiency and renewable energy options.
- Integrate energy and climate considerations in personal and business decisions.
- Explore energy-related education and training aligned with career opportunities.
- Explain how solar and or wind energy can be utilized for a variety of energy demand applications in residential, commercial, and municipal buildings.
- Discuss the benefits and limitations of various solar and or wind energy technologies that are commonly used to produce heat, hot water, and electricity are examined.
- Conduct sizing, system design, and economic and environmental analysis for solar and wind based implementations.

Prerequisite Statement

To graduate within this program in the specified time, students must begin in the Fall semester and successfully place into required courses based on placement test results and/or high school GPA. Academic advisors can assist with questions.