

EIMT 170 : Renewable Energy PV

Credits: 3

Class Hours: 2 lecture and 2 lecture/lab

Recommended: Concurrent enrollment in EIMT 121 or EIMT 123.

Description: This course is designed to prepare the individual for entry into the photovoltaic field. Emphasis is on photovoltaic technology application, incorporating the electrical principles, solar radiation, load analysis, components of a system, maintenance, and types of systems. Successful completion of the course qualifies an individual to take the North American Board of Certified Energy Practitioners (NABCEP) Basic Entry Level exam.

Semester Offered: Fall

Course Student Learning Outcomes (CSLOs):

1. Identify the proper location and orientation of a grid-direct PV system for a given location.
2. Apply advanced PV system design (grid-direct) to install a system according to NEC requirements.
3. Design a grid-direct system using Solmetric Software and KIUC requirements.
4. Select the proper components of a system to meet the performance requirements of a Grid-Direct PV system defined specification.
5. Demonstrate the procedures for maintaining an existing PV system.
6. Identify common errors and safety issues when commissioning multiple-string systems.
7. Perform a load analysis on an existing dwelling.