RENEWABLE ENERGY SYSTEM SPECIALIST

Program Description
This program is designed to meet the AAS requirement for individuals who wish to enter the job market with the skills to install, maintain, and troubleshoot photovoltaic systems, wind turbines, solar thermal systems, methane energy production systems, and biofuel manufacturing equipment. People in this position need a strong electro-mechanical background and therefore will receive such training. Renewable Energy System Technicians need to be able to analyze a site, install equipment, and have working knowledge of electrical systems, pumps, and motors related to renewable energies.

A Renewable Energy Systems Technician employed in the renewable energy field might:

- Assess sites for photovoltaic, solar thermal, and wind energy installations and analyze the feasibility of using such systems at certain locations.
- Work with customers to plan and design renewable energy systems.
- Install systems in a wide variety of settings.
- Work with concrete construction contractors for installing wind turbines and freestanding photovoltaic systems.
- Work with inverters and batteries, as well as grid-inter tie systems.
- Install pumps, storage tanks, and plumbing for solar thermal systems and for biofuels equipment.
- Troubleshoot photovoltaic, solar thermal, and wind energy systems and be able to repair problematic systems.
- Install, maintain, and troubleshoot ethanol and biodiesel manufacturing equipment, and methane energy production systems.

Award Options
Associates of Applied Science Degree (AAS), Certificate

Related Occupational Titles

Job Outlook
Renewable energies are a rapidly growing field locally, regionally, nationally, and internationally. Considering the training that students will receive in this program, students will have a variety of potential employment options following graduation. With North American Board Certified Energy Practitioner (NABCEP) certification, students would be more marketable. Starting salary is approximately $25,000 to $35,000 annually.

For details, please visit this link http://www.bls.gov/oco/

Since the colleges of EICC are continually reviewing programs, information in the course catalog may change. Please visit www.eicc.edu/catalog for any program updates which have occurred since the most recent edition of the catalog.

Tuition and fees subject to change by the EICC Board of Trustees.
### A.A.S. Degree

#### TERM 1
- **ELE:101** Industrial Safety 1.00
- **ELE:216** D.C. Circuit Analysis 3.00
- **ELE:217** A.C. Circuit Analysis 3.00
- **IND:134** Industrial Print Reading 2.00
- **MAT:705** Industrial Math & Measurement I 2.00
- **MAT:706** Industrial Math & Measurement II 2.00
- **Credits**: 13.00

#### TERM 2
- **CSC:110** Introduction to Computers OR 3.00
- **CSC:112** Fundamental Computers for Technicians I AND 2.00
- **CSC:113** Fundamental Computers for Technicians II 2.00
- **ELE:225** Electrical Motor Control and Power Distribution 3.00
- **ELE:309** Digital Circuits and Systems 3.00
- **ELT:312** Solid State Devices and Systems 3.00
- **PHY:185** Conceptual Physics Fundamentals I 2.00
- **Credits**: 14.00

#### TERM 3 - SUMMER
- **ECN:120** Principles of Macroeconomics OR 3.00
- **ECN:130** Principles of Microeconomics OR 3.00
- **HUM:105** Working in America OR 3.00
- **HUM:110** Changes and Choices OR 3.00
- **POL:111** American National Government OR 3.00
- **PSY:110** Introduction to Psychology OR 3.00
- **SOC:110** Introduction to Sociology 3.00
- **ENG:105** Composition I OR 3.00
- **ENG:107** Composition I: Technical Writing 3.00
- **PHY:186** Conceptual Physics Fundamentals II 2.00
- **Credits**: 8.00

#### TERM 4
- **EGT:117** Fluid Power Fundamentals 2.00
- **ELT:123** Programmable Logic Controllers 3.00
- **IND:136** Process Control I 3.00
- **SER:100** Intro to Renewable Energy Application 2.00
- **SER:102** History of Power Generation 3.00
- **SER:103** Renewable Energy Site Assessment 3.00
- **Credits**: 16.00

#### TERM 5
- **SER:104** Residential Renewable Energy Power Systems 3.00
- **SER:105** Residential Renewable Energy Mounting and Tower Systems 3.00
- **SER:108** Inverters, Chargers and Storage Devices 3.00
- **SER:109** Monitoring & Maintenance 3.00
- **SER:306** Sustainable Energy Capstone 3.00
- **Credits**: 15.00

#### A.A.S. Total
66.00