

RENEWABLE ENERGY

(AAS.RNRG) ASSOCIATE IN APPLIED SCIENCE DEGREE

This program prepares students for entry level positions into the field of renewable energy technicians and technical maintenance. Emphasis is placed on "green" technologies including electricity, physics, chemistry, wind, photovoltaics, solar thermal, bioenergy, energy efficiency, and smart grid technology. There is a critical skill shortage of trained workers knowledgeable with issues relating specifically to renewable energy and who can troubleshoot renewable energy systems.

Program requirements may change over time. Specific degree/graduation requirements are determined by a degree audit.

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|---------|---------------------------|-------------|
| EET-040 | Basic Electronics | 2.5 |
| EET-050 | Electric Circuits I * | 2.5 |
| HED-178 | Responding to Emergencies | 2.0 |
| TEC-050 | Technical Math I | 2.0 |
| TEC-052 | Technical Math II * | 2.0 |
| TEC-057 | Intro to Renewable Energy | 3.0 |
| WND-040 | Intro to Wind Technology | 3.0 |
| | SEMESTER TOTALS | 17.0 |

Second Semester

| | | |
|---------|------------------------|-------------|
| PHY-110 | Concepts of Physics | 4.0 |
| TEC-054 | Technical Math III * | 2.0 |
| TEC-056 | Technical Math IV * | 2.0 |
| ENG-120 | Composition I * | 3.0 |
| TEC-058 | Alternative Energy | 3.0 |
| EET-068 | Photovoltaic Systems * | 3.0 |
| | SEMESTER TOTALS | 17.0 |

SECOND YEAR

First Semester

| | | Hours |
|---------|-------------------------------|--------------|
| TEC-064 | Bioenergy | 3.0 |
| CHM-111 | Concepts of Chemistry | 4.0 |
| SPE-111 | Intro to Speech Communication | 3.0 |
| EET-072 | Relays and Control Circuits | 2.0 |
| EET-086 | Prog Logic Controllers I | 2.0 |
| | SEMESTER TOTALS | 14.0 |

Second Semester

| | | |
|---------|------------------------------|-------------|
| ECO-231 | Principles of Econ I (Macro) | 3.0 |
| TEC-063 | Electric Power Distribution | 3.0 |
| | Technical Electives | 6.0 |
| | SEMESTER TOTALS | 12.0 |

SUGGESTED ELECTIVES

| | | |
|---------|---------------------------------|-----------|
| EET-070 | Photovoltaic Technician | 2.0 |
| WND-041 | Wind Technology Maintenance I * | 3.0 |
| TEC-059 | Energy Management | 2.0 |
| TEC-068 | Sp Topics Renewable Energy | 0.5 - 5.0 |
| TEC-069 | Site Assessment/Renew Energy | 2.0 |
| CAD-056 | CAD I | 2.0 |

| | | |
|----------------------------|---------------------------------|--------------|
| IND-044 | Fluid Power | 3.0 |
| IND-062 | Rigging and Hoisting | 1.0 |
| MET-043 | Motors and Generators | 2.5 |
| MTT-050 | Intro to Machining Procedures | 3.0 |
| TEC-040 | Blueprint Reading/Industry I | 2.5 |
| IND-042 | Pipefitting Procedures | 1.0 |
| WEL-056 | Metal Cutting and Fabrication * | 2.0 |
| EET-052 | Solid State Circuits | 4.0 |
| WEL-057 | Welding Fundamentals | 2.5 |
| EET-075 | HMI-Human Machine Interface | 2.0 |
| EET-087 | Prog Logic Controllers II | 2.0 |
| TOTAL PROGRAM HOURS | | 60.00 |

- * There are prerequisites, course requisites, or minimum placement test scores for this course.
- ** Electives must be approved by the Program Coordinator
- + Course only offered fall semester
- ++ Course only offered spring and summer semester
- +++ Course only offered spring semester
- ++++ Course offered in summer term only
- ^ SOS 050 Human Relations and PSY 271 Introduction to Psychology cannot be used as a social science elective
- ^^ Consult Academic Advisor for appropriate course
- ^^^ Course requires a 30-hour practicum experience in addition to classroom lecture hours
- ^^^^ ECE 120 and ECE 125 must be taken the same semester

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