

Renewable Energy Technician

Holland code family: Doers

About the Program

The Renewable Energy Technician four-term certificate program is designed for students seeking entry-level positions in renewable energy manufacturing, installation, site evaluation, and service industries. Typical occupations include those of renewable energy technician, solar PV racking installer, energy system site evaluator, manufacturing technician, or limited energy auditor.

The program emphasizes green technologies, electronics fundamentals, practical troubleshooting and systems site evaluation and design. Technical courses involve extensive lab work using solar photo-voltaic panels, wind and hydro generators, chargers, batteries, inverters, and industry standard test equipment to design, build and test systems. Site evaluation training for system efficiencies and cost analysis is accomplished through hands-on use of specialized equipment and software. The certificate also helps prepare students for the entry-level North American Board of Certified Energy Practitioners (NABCEP) industry certification test.

Program Learning Outcomes

The curriculum in RCC courses is derived from a set of identified learning outcomes that are relevant to the discipline. Program learning outcomes for electronics technology programs are:

Identify and solve real-world problems through the application of electronics theory and concepts.

Calibrate, test, and repair analog and digital circuitry using industry standard test equipment.

Organize, interpret, and use technical information and documentation.

Communicate effectively across a variety of audiences: technicians, engineers, management and customers.

Function collaboratively as a member of a team to achieve specified and measurable results.

Demonstrate flexibility, adaptability, and time management skills commensurate with industry productivity needs.

Demonstrate the ability to adhere to personal and industry safety standards.

Demonstrate life-long learning towards professional growth.

Negotiate and abide by the terms of agreement that define their employment.

Entry Requirements

Students are required to complete the Placement Process to determine skill level and readiness in math, reading, and writing. As part of their training program, students must begin with the courses within their skill level as determined through the Placement Process. In addition, students may also be required to enroll in classes that would increase their employability and success.

Advanced Standing

Coursework from accredited colleges and universities will be accepted in accordance with college policies and the Electronics Technology department chair's recommendation. In order to ensure that coursework is current, program courses over three years old must be reviewed and approved by the appropriate department chair before being accepted toward core requirements. Official transcripts must be filed with the Enrollment Services Office and the Electronics Technology Department.

Graduation Requirements

Students must complete all courses in this program with a grade of "C" or better to receive their certificates. Certain required courses are graded on a pass/no pass basis only. A grade of "P" for these courses indicates a student earned the equivalent of a "C" or better grade.

Prerequisites

Course No.	Course Title	Credits
CS/CIS	Approved 3-4 credit Computer Science or Computer Information Science class, CS120/CIS120 or above, or documented computer proficiency within the past ten years. ¹	0-4
MTH20	Pre-algebra or designated placement test score	0-4
RD90/WR90	College Reading/Fundamentals of Composition or WR91 Fundamentals of Academic Literacy (WR91 substitutes for both RD90 and WR90) or designated placement test score	0-8
Total Prerequisite Credits		0-16



Required Courses

Course No.	Course Title	Credits
First Term		
EET113	Exploration of Alternative Energies	3
EET125	Electronics Fundamentals I	6
MTH63	Applied Technical Math/Applied Algebra I or MTH60 Fundamentals of Algebra I or higher level math	4
		13
Second Term		
EET118	Introduction to Renewable Energy Systems (RES)	5
EET129	Introduction to Embedded Systems	3
WR115	Introduction to Expository Writing or WR121 English Composition I	3-4
		11-12
Third Term		
EET120	Renewable Energy Systems (RES) Site Analysis and Design	4
EET126	Electronics Fundamentals II	6
PSY101	Psychology of Human Relations or BT101 Human Relations in Organizations	3
		13
Fourth Term		
EET121	North American Board of Certified Energy Practitioners (NABCEP) Entry-level Preparation	2
EET130	Digital Fundamentals I	6
HE112	Emergency First Aid	1
—	Approved program elective	3-6
		12-15

TOTAL PROGRAM CREDITS

49-53

Approved Program Electives

(3-6 credits required)

Course No.	Course Title	Credits
CIS125	Any computer applications course, CIS125 or above	variable
EET104	Fundamentals of Manufacturing Electronics	4
EET127	Exploring the Raspberry Pi	3
EET131	Digital Fundamentals II	6
EET140	Solid State Fundamentals	6
EET180	Cooperative Work Experience/Electronics	1-5
GS104	Physical Science with lab	4

¹ Required for graduation.

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For more information contact the Electronics Technology Department:

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