

Electricity and Renewable Energy Syllabus

Instructor: TBD

Office Phone: 757-874-4444 (ext. 5534)

Office Hours: 10:00am-12pm

Email: [TBD](#)

Campus: Woodside Lane Campus

Textbooks: Modern Residential Wiring 10th Ed.
Generating Clean Electronics Sustainable Conservation
National Electrical Code® (NEC®)

All of this information can be found at <http://www.cteresource.org/verso/>

Course Fees

OSHA 10	\$29
Activity Fund/Club	\$17
<u>Uniform Shirt</u>	<u>\$24</u>
Total Cost	\$70

Course Description:

Electricity and Renewable Energy is a 1-year program that teaches the basic concepts used by Electricians to install, premises wiring, devices, fixtures, and power equipment, as well as maintain and repair wiring. Navigation of the **National Electrical Code ® (NEC®) Code** to teach students to be in full compliance with local and national codes. Students will acquire hands -on approaches to real world wiring methods performed today. Students in this program will also explore alternative renewable energy sources and will learn about hydrogen fuel cells, solar panels and wind generators as well as Geothermal equipment. As our needs for electricity grows, so does the needs for alternative renewable energy resource needs to grow. Therefore the need for further career opportunities in this field grows. Because we depend so much on electricity and other energy sources for the way we live and work, careers in this field will always be in high demand.

Instruction

In this course we will be utilizing the following forms of instruction:

Classroom Lecture	Discussions	Powerpoint presentations
Labs	Hands on activities	Internet research
Quizzes/tests	Videos	Guest Speakers

Prerequisites:

The prerequisites for this course are the completion of Algebra 1 and English 10 with a grade of “C” Or better.

Length of course: 1 year program

Evaluation Methods:

Related Instruction (33%) **Theory**

Employability Skills (34%) **Readiness to Work**

Competencies (33%) **Demonstrated Skills**

Assessment Plan

Grades for this course will be based on the following levels of performances:

A 90-100

B 80-90

C 70-79

D 60-69

F 0-59

Attendance:

The Attendance Policy is outlined in the Student Code of Conduct Manual.
(PLEASE READ)

Student Organization/Community Service:

All students will be required to attend at least one Student/Community Service event per semester.

Classroom expectations:

Follow the Students code of conduct (Students Rights and Responsibilities Handbook)

Students should be on time

No talking during the teacher or guest speaker's presentation

No cell phone use in the classroom

Students will be required to maintain a binder as part of their grade

Students will be respectful to others at all times

Virginia's All Aspects of Industry—Planning Management, finance, Technical and Production Skills, Underlying Principles of Technology Labor Issues, Community Issues and Health, Safety, and Environmental Issues.

Virginia's Workplace Readiness Skills—Demonstrate reading skills, math skills, writing skills, speaking and listening, and computer literacy on a level required for employment in a chosen field. Reasoning, problem solving, and decision-making. "Understanding the big picture" strong work ethic, positive attitude, independence, and initiative, self-presentation skills, satisfactory attendance, and participating as a team member to accomplish goals.

Career Opportunities:

Electrician Maintenance Technician
Hydrogen Power Technician
Security System Technician

Solar Power Technician
Telecommunication Tech
Audio Video Technician