**Electricity and Renewable Energy Syllabus**

**Course Fees**

<table>
<thead>
<tr>
<th>Instructor: Amy L. England</th>
<th>Student Organization Fee $17.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Phone: 757-874-4444 (ext. 5534)</td>
<td>Uniform Shirt- Flame resistant- $38.00</td>
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<tr>
<td>Office Hours: 10:00am-11am</td>
<td>Total Cost $55.00</td>
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<tr>
<td>Email: <a href="mailto:amy.england@nhrec.org">amy.england@nhrec.org</a></td>
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<tr>
<td>Course: Electricity and Renewable Energy (Course #8533 and #8534)</td>
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<td>Campus: Woodside Lane Campus</td>
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**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 troubleshoot wiring installations. Students will learn to navigate the [National Electrical Code® (NEC®)](http://www.neresource.org/verso/) in order for students to be in full compliance with local and national codes. This program has an operational lab that will provide a hands-on approach 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. This program is part of the National Center for Construction Education and Research. As the demand for electricity grows, so do the needs for alternative renewable energy resources. Therefore, the need for further career opportunities in this field also inclines. Since 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.
**Instructional Philosophy:**

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

- Classroom lecture and discussions
- Labs hands on activities
- Quizzes and tests
- Videos and powerpoint presentations
- Internet research
- Guest Speakers from Industry

**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:

Grade Performance Standards

<table>
<thead>
<tr>
<th>Grade</th>
<th>Performance</th>
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<tbody>
<tr>
<td>A</td>
<td>90-100</td>
</tr>
<tr>
<td>B</td>
<td>80-90</td>
</tr>
<tr>
<td>C</td>
<td>70-79</td>
</tr>
<tr>
<td>D</td>
<td>60-69</td>
</tr>
<tr>
<td>F</td>
<td>0-59</td>
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**NCCER Accreditation:**

*Students will be proctored for each NCCER module test. Successful completion of module testing with a final average score of 70% or better will receive the Level 1 NCCER accreditation.*

**Attendance:**

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

**Classroom rules and regulations:**

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 phones or other electronic device use in the classroom (unless given explicit approval by the instructor.)

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

Students will be respectful to others at all times

Students will be required to wear PPE while working in the Lab

Students will be required to provide and wear standard work shoes (leather sides and sturdy soles) when working in the Lab

Student must bring their chromebooks each day as well as a writing utensil

Related competencies are available on the CTE Resource Website listed above.


**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 chosen trade. Reasoning, problem solving, and decision-making. “Understanding the big picture”: strong work ethic, positive attitude, independence, initiative, self-presentation skills, satisfactory attendance, and participating as a team member to accomplish goals.
Career Opportunities:

- Electrician
- Maintenance Technician
- Solar Power Technician
- Hydrogen Power Technician
- Telecommunication Tech
- Security System Technician
- Audio Video Technician
- Fire Alarm Technician
- Project Management
- Sole Proprietor

***Students driving to New Horizons must purchase a parking decal for $25.00. Students will be sent home a parking decal form to complete. Make sure to send current registration and current insurance card to be copied and placed in file. Lost decals are $15.00 replacement fee and temporary decals for one day are $2.00.