



ELECTRICAL TECHNOLOGIES
Course Syllabus

2019-2020

The Center for Advanced Technical Studies

Course Title: Electricity 1

Room: 204

Instructor: Jon Gray

Email: jagray@lexrich5.org

Phone: (803) 476-8628

Credits: 2

Course Description: Electricity 1 is a program designed to prepare students for entry-level employment as an electrician and electrician helper or in related occupations. Electricity students receive instruction in communication skills, leadership skills, human relations and employability skills, safety, effective work practices, and in the installation, operation, maintenance, and repair of residential electricity systems. Laboratory activities provide instruction in all phases of residential electrical wiring in accordance with the National Electrical Code. Students enrolled in this course have the opportunity to gain national industry certification through the NCCER (National Center for Construction Education and Research) training program.

Course Activities: As in all modern technical professions, safety is incredibly important in the field of electricity. As such, a major focus in Electricity 1 will be safety. After completing a safety examination with 100% efficiency students will be given the opportunity to expand on their theoretical knowledge of electricity by taking the knowledge acquired in the classroom out into the lab. Students will learn the tools and equipment of the trade, and how to implement them properly. The course will also introduce a wide variety of various device boxes, conduits, fittings, and fixtures. Students will be introduced to basic electrical design blueprints, primarily focused on residential applications, as well as techniques to complete them. All activities will be focused around the applicable National Electric Code principles being learned.

Course Content:

Core Curriculum

Basic Safety

Construction Math

Introduction to Hand Tools

Introduction to Power Tools
Introduction to Construction Drawings

Electrical Level One

Electrical Safety
Introduction to Electrical Circuits
Electrical Theory
Introduction to the *National Electric Code*
Device Boxes
Hand Bending
Raceways and Fittings
Conductors and Cables
Basic Electrical Construction Drawings
Residential Electrical Service
Electrical Test Equipment

Textbooks:

NCCER Core Curriculum *Introductory Craft Skills*
NCCER Electrical Level One

Grading Scale:

A= 100-90
B= 89-80
C= 79-70
D= 69-60
F= Below 60

Grade Weight:

Tests: 30%
Projects: 30%
Quizzes: 20%
Classwork: 20%

Class Rules:

1. Always be Respectful
2. Always be Prepared for Class
3. Obey the Cell Phone Policy
4. No Horseplay/Profanity

Shop Rules:

1. Safety FIRST!!
2. Use Tools Properly
3. If You Are Unsure, Ask for Help
4. No Horseplay/Profanity

Cell Phone Policy:

In a professional setting cell phones have become an integral tool in daily operations. From contacting employers/employees to customers and suppliers, electricians use their phones extensively for communication. Phones are also utilized to electronically reference codes, plans, and installation directions. There are also many applications that are either preloaded or can be downloaded to assist the industry professional in their day to day activities. From using the clock, calculator, and navigation programs found on most smart phones, to apps that allow the user to measure, level, and even map entire building plans, the uses for cell phones in the professional industry are vast.

Conversely, cell phones are also a major point of contention in the professional world. Especially pertaining to the loss of productivity in employees, as well as the potential for safety violations when a person is distracted by an electronic device.

In this electricity class the students are training to become professionals, but they have not yet achieved that status. As such, the necessity of the cell phone in the classroom setting is eliminated. As a general rule, cell phone use in the classroom and the lab will be prohibited. Cell phones are to be put away, and not visible to the student, other students, or the instructor. Violation of the cell phone policy will negatively affect the daily participation grade for the student. Repeated violations will result in phone confiscation.

“I have read the syllabus with great detail and thoroughly understand the expectations, rules, and procedures that are expected of me as a student enrolled in this course. I realize that I am responsible for all rules, regulations, procedures, and course requirements set forth in these documents and in the Student Handbook and district policy manual. I agree to be held accountable for the contents of this class syllabus and all supporting documents.”

Student Name (Print): _____ **Block:** _____
Student Signature: _____ **Date:** _____

“I have read thoroughly the contents of this syllabus and discussed with my child the expectations of him/her in this course.

Parent/Guardian Name (Print): _____ **Date:** _____
Parent/Guardian Signature: _____ **Date:** _____

Contact Information

Name of Parent(s)/Guardian(s): _____
Work Number: (Mother) _____ **(Father)** _____
Cell Number: (Mother) _____ **(Father)** _____
Email Address: (Mother) _____
Email Address: (Father) _____
Student’s Email Address: _____
Mailing Address _____
