



## COURSE SYLLABUS

PO Box 1189  
1042 W. Hamlet Avenue  
Hamlet, NC 28345  
(910) 410-1700  
www.richmondcc.edu

**COURSE:**    **AHR 111     HVACR ELECTRICITY**

**HOURS:**     Lecture: 2     Lab/Shop: 2     Work Exp/Clinical: 0     Credits: 3

### **COURSE DESCRIPTION:**

This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits, and the use of electrical test equipment. Upon completion, students should be able to demonstrate good wiring practices and the ability to read simple wiring diagrams.

**PREREQUISITE(S):** None

**COREQUISITE(S):** None

### **TEXTBOOK(S) & OTHER SPECIAL REQUIREMENTS:**

Open Educational Resources (OER) are listed in the course Moodle.

Other Requirements:

- Safety Glasses with lanyard
- Appropriate Mechanics gloves

### **STUDENT LEARNING OUTCOMES:**

Upon successful completion of this course, the student will be able to:

1. Demonstrate safe practices and procedures with tools, materials, and industry accepted test equipment covered in the course.
2. Be able to use electrical test instruments.
3. Demonstrate knowledge of electricity as applied to heating, ventilation, air conditioning and refrigeration machines.
4. Identify the various electrical components used HVAC equipment and explain their operation.
5. Use Ohm's Law to calculate the current, voltage, and resistance in a circuit.
6. Draw and interpret wiring schematics for installation and troubleshooting.
7. Follow systematic troubleshooting procedure to diagnose electrical problems and control circuit problems.

**\*\*\*Please refer to the online version of the Richmond Community College Program & Course Catalog and the Student Handbook for current academic and general information.**