

**Western Dakota Technical Institute
800 Mickelson Drive
Rapid City, SD 57703-4018**

Master Syllabus

Course Number: HVAC 121
Course Name: Electrical Applications for HVAC I
Credits: 4
Contact Hours: 3 Lecture; 2 Lab

Course Description: This course covers general knowledge of basic electrical applications used by industry. Use of basic electrical equipment including multimeters is stressed. Topics include current, voltage, resistance, symbols, and basic AC and DC circuits. Introduction to automatic component controls and motors in their typical applications are also included.

Prerequisites: None

Textbooks: <http://bookstore.wdt.edu/>

Materials: HVAC Program Tool Set and Calculator

Student Learning Outcomes:

- Understand how to safely work around electrical components in HVAC
- Calculate voltage, current, and resistance in various circuits
- Describe the operation of multimeters in the measurement of electricity
- Identify common symbols used in wiring diagrams
- Test common electrical components in HVAC circuits

Assessment: Students' analytical skills, teamwork techniques, social values, employability, and technology skills will be assessed throughout this course.

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