REFR2206 - Commercial Electrical Principles

Credits:	3 (3/0/0)
Description:	This course covers the fundamentals of electrical components used in commercial refrigeration and air conditioning equipment. Reading and understanding electrical schematics will be employed to comprehend the sequence of operation and aid in troubleshooting. Students also will develop their own wiring diagrams by applying Ohm's law and how it relates to series and parallel circuits. Safety is emphasized.
Prerequisites:	• Completion of HVAC/R diploma.
Corequisites:	
Pre/Corequisites*:	
Competencies:	1. Demonstrate the need for proper grounding of electrical equipment. 2. Differentiate between single and three-phase power. 3. Explain the treatment of an electrical shock victim. 4. Explain safe practices around live circuits. 5. Describe major causes of electrical accidents. 6. Identify proper use of electrical lockout/tagout devices. 7. Explain the use of ammeters, volt meters and ohmmeters. 8. Apply Ohm's law to series and parallel circuits as used in refrigeration systems. 9. Contrast series and parallel circuits as used in refrigeration systems. 10. Identify electrical components from an electrical diagram. 11. Differentiate between ladder and pictorial diagrams. 12. Install temperature control systems in a pump down cycle. 13. Identify methods for using a fan delay/termination thermostat in low-temperature applications. 14. Determine all necessary controls needed in a residential heating and cooling system.
MnTC goal areas:	None

**Can be taking as a Prerequisite or Corequisite.*