REFR2213 - Advanced Electrical Theory

Credits:	3 (3/0/0)
Description:	This course covers the electrical principles and schematics used in commercial, industrial, hospital and supermarket refrigeration systems. Safety is emphasized.
Prerequisites:	• Completion of HVAC/R diploma.
Corequisites:	
Pre/Corequisites*:	
Competencies:	1. Practice all safety guidelines regarding electricity. 2. Design a low-pressure time-delay bypass circuit for low ambient conditions. 3. Evaluate variable speed fan control options for head pressure control. 4. Analyze uses for current sensing relays to determine if a load is operating. 5. Design a manual reset bypass circuit to convert auto reset controls to manual reset controls. 6. Evaluate the use of current relays in compressor motor starting. 7. Contrast the difference between run and start capacitors. 8. Determine when the use of potential relays for compressor motor starting is applicable. 9. Evaluate electronic and mechanical oil pressure safety controls. 10. Explain methods to test run and start capacitors. 11. Contrast differences in commercial ice machines that use electronic control systems. 12. Select appropriate motors for given applications. 13. Identify advanced electrical components from a schematic diagram.
MnTC goal areas:	None

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