

REFR2215 - Advanced Electrical Applications

Credits:	3 (0/3/0)
Description:	This course covers the application of electrical principles used in commercial, industrial, hospital and supermarket refrigeration systems. Safety is emphasized.
Prerequisites:	<ul style="list-style-type: none"> Completion of HVAC/R diploma.
Corequisites:	
Pre/Corequisites*:	
Competencies:	<ol style="list-style-type: none"> Practice all safety guidelines regarding electricity. Install a low-pressure time-delay bypass circuit for low ambient conditions. Test run and start capacitors for opens, shorts and capacitance values using a volt-ohm meter. Install a hard start kit on a single-phase air conditioner. Demonstrate the use of current relays for compressor starting. Program a commercial multistage electronic controller. Diagnose compressor electrical failure using manufacturer's data. Wire various advanced electrical circuits from wiring diagrams. Employ ladder diagrams to evaluate large commercial refrigeration operating systems. Replace a positive temperature coefficient (PTC) device with a potential relay and start capacitor. Learn the correct ways to program and operate mechanical and electronic time clocks.
MnTC goal areas:	None

*Can be taken as a Prerequisite or Corequisite.