

## REFR2212 - Advanced Refrigeration Lab

Credits:	3 (0/3/0)
Description:	This course gives students the opportunity to work on more complicated refrigeration systems through individual or paired groups on field trips, off-site meetings and hands-on projects. Safety is emphasized.
Prerequisites:	Completion of HVAC/R diploma.
Corequisites:	
Pre/Corequisites*:	
Competencies:	<ol> <li>Determine if non-condensables are present in a refrigeration or air conditioning system.</li> <li>Repair a major leak using proper procedures as outlined by the Environmental Protection Agency (EPA).</li> <li>Inspect a solenoid valve for worn or leaking parts.</li> <li>Solve an evaporator coil freeze-up complaint.</li> <li>Adjust an evaporator pressure regulator valve to maintain desired product temperature.</li> <li>Measure discharge and suction pressures to calculate compression ratio.</li> <li>Test the operation of an electronic oil pressure safety control.</li> <li>Demonstrate brazing techniques using oxyacetylene and TurboTorches.</li> <li>Use an electronic leak detector to locate a refrigerant leak.</li> <li>Maintain cooler temperature using a low-pressure control.</li> <li>Demonstrate how various commercial ice machines produce and harvest ice.</li> <li>Compare electronic and mechanical oil pressure safety controls.</li> </ol>
MnTC goal areas:	None

<sup>\*</sup>Can be taking as a Prerequisite or Corequisite.