

## HVAC1224 - Gas and Oil Heating

Credits:	3 (1/2/0)
Description:	This course covers residential gas and oil heating units, primarily forced air furnaces. Emphasis is on understanding the sequence of operation, proper adjustment, efficiency measurement and safety. This course also includes the diagnosis and repair of malfunctioning furnaces.
Prerequisites:	<ul style="list-style-type: none"> <li>• HVAC1128</li> </ul>
Corequisites:	
Pre/Corequisites*:	
Competencies:	<ol style="list-style-type: none"> <li>1. Demonstrate safety and professionalism.</li> <li>2. Compare and contrast condensing and conventional furnaces.</li> <li>3. Identify leaks in gas appliance systems.</li> <li>4. Describe the function of pressure regulators.</li> <li>5. Describe furnace components.</li> <li>6. Discuss fuel consumption and efficiency in heating systems.</li> <li>7. Identify hot surface ignition, standing pilot ignition and direct spark ignition.</li> <li>8. Measure voltages, pressures and currents.</li> <li>9. Discuss the effect of temperature and pressure on oil.</li> <li>10. Discuss fuel storage for various furnace types.</li> <li>11. Describe venting systems.</li> <li>12. Perform repairs and troubleshooting according to manufacturer specifications.</li> <li>13. Troubleshoot malfunctioning gas and oil furnaces.</li> </ol>
MnTC goal areas:	None

\*Can be taking as a Prerequisite or Corequisite.