## PLAP 1417 SYLLABUS

<table>
<thead>
<tr>
<th>Course Number Course Name</th>
<th>PLAP 1417 Plumbing Apprenticeship VII</th>
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<tbody>
<tr>
<td>Credit Value (Breakdown of theory and lab credits)</td>
<td>2.5 (1 Theory and 1.5 Lab)</td>
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<tr>
<td>Catalog Course Description</td>
<td>This course covers hydronic systems. A hydronic system uses water or a water-based heat transfer fluid to ensure the comfort of a building's occupants. Advantages of a hydronic heating or cooling system include uniform temperatures, the ability to construct systems with many independently controlled zones, efficiency, lower material costs, and low operating costs. Subjects to be covered discovered are Principles of heating and cooling; Pumps; Air management; Piping materials and components; System layout; and System Sizing. Pre-requisites: None</td>
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| Student Learning Outcomes/Objectives /Competencies of the Course | Student Learning Outcomes:  
• Identify key components of a hydronic system.  
• Determine proper pump size and calculate flow rate for a hydronic system.  
• Define how square foot area and the air movement cycle effect comfort heating and cooling.  
• Define the role of hydronics as it pertains to radiant floor and wall heating.  
• Accurately size a given hydronic system |
| College-Wide Student Learning Outcomes | College Wide Student Learning Outcomes:  
  Information Competency  
  Critical Thought |