PLAP 1317 SYLLABUS

<table>
<thead>
<tr>
<th>Course Number Course Name</th>
<th>PLAP 1317 Plumbing Apprenticeship V</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 will cover historical perspectives and drainage system improvement; piping materials and fittings; traps and fixtures connections; sanitary drainage installation; vent systems; DWV sizing; storm drainage; sewers and sewage treatment; private sewage disposal systems; and alternate water source drainage systems. The course will also emphasize the importance of proper installations of gas. Properties of gas and the combustion process will be covered as well as gas piping systems; clocking and orifice sizing; air supply and venting; valves and regulators; and electrical systems and controls. Pre-requisites: None</td>
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| Student Learning Outcomes/Objectives/Competencies of the Course | Student Learning Outcomes:  
- Identify advantages of a healthy drainage system.  
- Identify the differences in drainage and venting fittings.  
- Describe the importance of traps as they apply to drainage.  
- Demonstrate ability to properly size a drainage system  
- Describe how a healthy private sewage system work.  
- Identify local regulations and codes pertaining to alternate water source drainage systems.  
- Identify the various properties of gas.  
- Install a basic gas piping system.  
- Demonstrate de-rating calculations for proper orifice sizing.  
- Identify proper vent material and sizing based on the fuel type and output Btu’s.  
- Demonstrate the proper placement and positioning of gas regulators both in and outside of the building.  
- Demonstrate proper troubleshooting procedures for gas systems.  
- Demonstrate proficiency in testing and finding leaks in a gas piping system. |

| College-Wide Student Learning Outcomes | College Wide Student Learning Outcomes:  
Communication  
Critical Thought |