



## PLAP 1127 SYLLABUS

<b>Course Number Course Name</b>	PLAP 1127 Plumbing Apprenticeship II
<b>Credit Value (Breakdown of theory and lab credits)</b>	3.0 (2 Theory and 1Lab)
<b>Catalog Course Description</b>	This course delves deeper into heavy commercial and industrial rigging and culminate in an Industrial Rigging Certification. Areas to be covered are Inspections of various wire and synthetic slings; Safe working load limits; Sling lifting angles; Inspection of all rigging hardware; Eyebolts; Spreader beams; Man baskets; Mechanical advantage; Critical lift design; Lift calculation form; Rigging hook-up; Crane set-up; Site preparation; Boom truck operations; Ariel platforms; Tower cranes; and crane signaling. This course continues with related science theory and principles as they relate to the piping and plumbing industry including the science behind piping of different materials and in different applications with gases, hydronics and steam including the safety devices needed to contain these elements in a safe manner. Pre-requisites: None
<b>Student Learning Outcomes/Objectives /Competencies of the Course</b>	<p>Student Learning Outcomes:</p> <ul style="list-style-type: none"> <li>• Demonstrate correct preparation of a heavy lift plan.</li> <li>• Demonstrate correct inspection of slings for use in a lift.</li> <li>• Demonstrate correct inspection of lifting hardware.</li> <li>• Demonstrate correct use of slings, chain hoists and come-a-longs on an assigned lift.</li> <li>• Demonstrate correct crane signals to crane operator.</li> <li>• Pass written and hands-on exam for certification.</li> <li>• Demonstrate knowledge of basic scientific laws and principles of water.</li> <li>• Demonstrate knowledge of basic scientific laws and principles of steam.</li> <li>• Identify the correct safety devices for specified systems.</li> <li>• Interpret temperature/pressure relationship as it pertains to piping material, fitting and joining methods.</li> <li>• Differentiate the effects of piping cross sectional area has on velocity of flow.</li> </ul>
<b>College-Wide Student Learning Outcomes</b>	<p><i>College Wide Student Learning Outcomes:</i></p> <p><i>Communication</i></p> <p><i>Critical Thought</i></p>