



PLAP 1117 SYLLABUS

Course Number Course Name	PLAP 1117 Plumbing Apprenticeship I
Credit Value (Breakdown of theory and lab credits)	5 (1 Theory and 4 Lab)
Catalog Course Description	This course provides basic safety, health and education training for construction workers. Training is provided in the recognition, avoidance, abatement and prevention of safety and health hazards in workplaces in the construction industry. It also provides information on the employer's responsibilities, workers' rights and how to file a complaint. It also trains Apprentices in the proper use and care of hand and power tools. Areas to be covered include, but are not limited to, Proper tool use; Tool care and maintenance; Safety; Ladders and scaffolds; Measurement and layout tools; Hand and power tools; Pipe Joining Tools; and Specialty tools. apprentices need to know the type and assembly methods of pipe, valves, and fittings, as well as obtain the skills to install various joint connections. Finally, the course also focuses on the joining methods of soldering & brazing which include, Safety and safe work practices; Theory of soldering and brazing; Types and uses of copper tube; Solders, brazing rod, and fluxes; Joint preparation and assembly; Heating equipment and tools; Soldered and brazed joints; and Performance tests for soldering and brazing. Pre-requisites: None
Student Learning Outcomes/Objectives /Competencies of the Course	Student Learning Outcomes: <ul style="list-style-type: none"> • Describe six different types of violations used by OSHA and give a brief description of each. • Describe the concept of the General Duty clause. • List the general safety and health training provisions of Subpart C. • Identify the safety procedures used to prevent trenching and shoring fatalities and injuries. • Determine whether hearing protection is needed in situational examples, using the formula to calculate exposure. • Identify the OSHA Fatal Four categories. • Describe three general requirements for safe rigging. • Identify the safety procedures used prevent crane fatalities and injuries. • Identify key tools used in the piping industry. • Perform appropriate maintenance on tools. • Demonstrate safe usage of hand and power tools. • Demonstrate proper inspection of ladders and scaffolds for safe usage. • Demonstrate the proper use of pipe joining tools. • Identify the proper solders, fluxes and brazing rod for assigned joining procedures. • Select proper heat source, tools and preparation material for assigned joining procedures. • Measure, cut, and assemble connections according to industry standards.

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	<ul style="list-style-type: none">• Demonstrate proper soldering process to pass visual inspection by the CWI.• Demonstrate proper brazing process to pass visual inspection by the CWI.• Obtain the UA Soft Solder (UA-SS1) and UA Brazing (UA-51) certifications.
College-Wide Student Learning Outcomes	<i>College Wide Student Learning Outcomes: Communication Critical Thought</i>