



PLBT 2102 SYLLABUS

Course Number Course Name	PLBT 2102 Hydronics
Credit Value (Breakdown of theory and lab credits)	2.5 (1 Theory and 1.5 Lab)
Catalog Course Description	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
Student Learning Outcomes/Objectives /Competencies of the Course	<p>Student Learning Outcomes:</p> <ul style="list-style-type: none"> • Identify basic electrical devices and materials. • Identify the relationship of volts, amps and ohms. • Demonstrate low voltage wiring of sensors from transformers to fixtures. • Demonstrate proficiency in calculating the conversion of watts to horsepower. • Demonstrate troubleshooting procedures for low voltage systems. • Identify the various needs of controls based on a particular system. • Determine flow rates and make adjustments to obtain peak performance. • Demonstrate successful interpretations of wiring diagrams for electrical controls. • Demonstrate troubleshooting procedures for electrical controls.
College-Wide Student Learning Outcomes	<p><i>College Wide Student Learning Outcomes:</i></p> <p><i>Information Competency</i></p> <p><i>Critical Thought</i></p>