

PLU-111 Introduction to Basic Plumbing

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course introduces basic plumbing tools, materials, and fixtures. Topics include standard tools, materials, and fixtures used in basic plumbing systems and other related topics. Upon completion, students should be able to demonstrate an understanding of a basic plumbing system.

LEARNING OUTCOMES:

Upon completing requirements for this course, the student will be able to:

1. Demonstrate general safety practices in relation to Plumbing
2. Read and interpret basic building and plumbing codes
3. Recognize and name common tools used by plumbers
4. Measure and calculate pipe offsets often used in plumbing
5. Identify plumbing symbols and abbreviations used in architectural drawings
6. Demonstrate the processes for soldering and brazing copper pipe
7. Demonstrate the processes for welding plastic pipe and fittings
8. Identify various fixture types
9. Recognize and properly name various fittings and pipes
10. Recognize and name the different types of valves and meters
11. Describe how the controls and heating elements of water heating systems work
12. Describe techniques for working with pipe and fittings made from PVC, CPVC, PEX, and copper
13. Describe the proper installation procedures for installing fixtures, faucets, water supply and DWV connections for each type fixture and appliances
14. Explain the operation of a simple septic system

OUTLINE OF INSTRUCTION:

1. Plumbing Tools
2. Leveling Instruments
3. Soldering, Brazing, and Welding
4. Piping Materials and Fittings
5. Valves and meters
6. Soft soldering
7. Hydraulic and Pneumatics
8. Rigging and Hoisting
9. Water Supply Systems
10. Plumbing Fixtures
11. Water Heaters
12. Designing Plumbing Systems
13. Preparing for Plumbing System Installation
14. DWV Pipe and Fitting Installation
15. Installing Water Supply Piping
16. Supporting and Testing Pipe
17. Installing Fixtures, Faucets, and Appliances
18. Septic Systems

19. Storm Water and Sumps
20. Repairing DWV Systems
21. Repairing Water Supply Systems

REQUIRED TEXTBOOK AND MATERIAL:

The textbook and other instructional material will be determined by the instructor to ensure that current, relevant concepts and theories are present.