Plumbing (PLUM)

Courses

PLUM 110   Introduction to Plumbing Systems (3 Hours)
This is an introduction course to the plumbing trade with an emphasis on residential plumbing and installation methods. Students will be instructed on the basic fundamentals of the plumbing trade. This course is designed to provide training in the identification and use of plumbing tools and materials, plumbing print reading, math skills used in the plumbing trade, reading residential plumbing drawings and sketches, perform basic pipe sizing, copper and plastic piping practices, soldering and brazing, cutting and threading carbon steel pipe, joining cast-iron pipe and fittings, making flared and compression joints with copper tubing, PVC and CPVC fittings, fitting and cleanout requirement for DWV piping, and installing natural gas piping systems.

PLUM 125   Residential Plumbing (3 Hours)
This course introduces students to residential plumbing fixtures, faucets, drain assemblies and appliances. Students will study and practice safe installation applications of basic residential plumbing devices. The items discussed in this course will focus mainly on wood-framed structures such as single and multi-family dwellings along with the different types of materials and tools that are commonly used with these structures. This course is designed to provide an understanding of the plumbing system of a structure including water supply distribution pipes, fixtures and fixture traps, soil, waste and vent pipes, building drains and building sewers, storm water drainage and their devices, appurtenances and connections within the building and outside the building within the property lines.

PLUM 130   Print Reading and Estimating (3 Hours)
This course explores reading, interpreting, and understanding of construction drawings and developing piping sketches including plan, elevation and isometric views, size drain waste and vent piping. This course was designed for plumbing students who need to develop the ability to interpret trade prints and plan the installation of the required plumbing. The students will be taught the basics of sketching and plumbing designs on construction prints.

PLUM 140   Backflow Preventers (2 Hours)
This course is designed to provide essential information by blending theoretical and practical aspects of cross-connection controls concerning the theory of backflow prevention and the different types of backflow devices that are used to protect the public water supply. This class will provide the students with an understanding of the principles of backflow prevention, back pressure and backsiphonage along with applying the hydraulic principles and laws. Students will be able to recognize the proper backflow prevention assembly application, installation and operation. Students will be able to demonstrate how to properly install and test backflow protection devices.

PLUM 210   DWV and Water Distribution* (3 Hours)
Prerequisites or corequisites: PLUM 125.
This course introduces students to the layout and design of the drain, waste, and vent (DWV) along with how to size water distribution lines in residential homes. The students will gain practical application of using leveling instruments, shooting elevations, and grading pipes. Students will become familiar with the different types of piping utilized in water and distribution piping. This class will examine sewer treatment procedures and disposal systems; including sewers, septic tanks, calculating tank sizes, maintenance causes, and removal of sewer obstructions.

PLUM 240   Installation, Maintenance and Repair* (3 Hours)
Prerequisites or corequisites: PLUM 130.
This course is designed to convey solid plumbing practices applicable to all areas of plumbing trade including: materials, installations, maintenance, and repair. Traditional approaches will be examined to ensure that the students receive a broad exposure to all materials and practices of the work place. Emphasis will be placed on advanced concepts of the plumbing industry. This class focuses on the maintenance and repairing of plumbing fixtures and includes the scientific principles of explaining why water supply and sewage systems work and mathematical principles of plumbing. This course will allow students to learn practical application in the lab setting of the theoretical material covered in class in how to diagnose and repair common problems associated with plumbing components and systems.

PLUM 250   Commercial Plumbing* (3 Hours)
Prerequisites : PLUM 110.
This course introduces students to commercial plumbing features. Students will study and practice safe application and installation of basic commercial plumbing devices. This course is designed to provide an understanding of the plumbing system of a commercial structure including water supply distribution pipes; fixtures and fixture traps; soil, waste and vent pipes; building drains and building sewers; storm water drainage; appurtenances and connections within the building and outside the building within the property lines.

PLUM 275   Plumbing Code* (3 Hours)
Prerequisites or corequisites: PLUM 125.
This course is designed to assist students in the understanding and the interpretation of the current International Plumbing Code (IPC) and International Fuel Gas Code (IFGC) and the minimum requirements for plumbing materials and design. These codes are founded upon the basic principles of safety through properly designed systems, acceptable installation standards, and appropriately maintained plumbing systems.

PLUM 280   Plumbing Internship* (3 Hours)
Prerequisites : Department approval.
Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work environment. The internship will provide the students with an on-the-job experience under the supervision of industry professionals. The work will be developed in cooperation with area employers, college staff and each student to provide a variety of actual job experiences directly related to the student's career goals in the plumbing field. Minimum 15 hrs. per week on-the-job training.