

APR 261 : PLUMBING PIPING SIZING AND SYSTEMS

Transcript title

Plumbing Piping Sizing and Sys

Credits

4

Grading mode

Standard letter grades

Total contact hours

80

Other hours

80

Prerequisites

APR 260.

Course Description

Introduces the principles and hazards of backflow prevention. Reviews different types of vents that can be installed in a drain, waste and vent systems, sewage pumps, sump pumps, corrosive waste products, and safety issues. Includes instruction on sizing drains, waste, drain-waste-vent systems (DWVs), and indirect waste piping. Provides hands-on lab work on plumbing with waste, water, gas, and vents. Designed for registered apprentices in the plumbing trade.

Course learning outcomes

1. Explain the principle of backflow due to back siphon age or back pressure, the hazards of backflow and the importance of backflow preventers.
2. Identify and explain the applications of the six basic backflow prevention devices.
3. Explain installation of common types of backflow devices.
4. Calculate sizing for sewer pumps and for drainage fixture units for waste systems, building drain sizes, sewers and vent systems.
5. Identify and explain sizing requirements of special kinds of waste and vent systems.
6. Explain how a vent system works and the applications of each type of vent required for different drains waste and vent systems.
7. Design vent systems according to local code requirements and sketch the different types of vents.
8. Identify corrosive waste and explain where they are found.
9. Perform informed and safe hands-on lab work plumbing with waste, water, gas, and vents.

Content outline

1. Principles and hazards of backflow prevention.
2. Review various types of vents used in drain, waste, and vent (DWV) systems.
3. Operation and application of sewage pumps and sump pumps.
4. Handling and management of corrosive waste.

5. Safety issues related to plumbing systems and installations.
6. Sizing for drain, waste, vent (DWV), and indirect waste piping.

Required materials

Materials not required.