

ATPL-2550: PLUMBING SERVICE & PROCEDURES

Cuyahoga Community College

Viewing: ATPL-2550 : Plumbing Service & Procedures

Board of Trustees:

2012-06-28

Academic Term:

Spring 2019

Subject Code

ATPL - Applied Ind Tech - Plumbers

Course Number:

2550

Title:

Plumbing Service & Procedures

Catalog Description:

Discusses the service division of the plumbing industry including customer service and salesmanship. Includes sections explaining maintenance and servicing of drains, faucets, valves and hot water.

Credit Hour(s):

2

Lecture Hour(s):

2

Requisites

Prerequisite and Corequisite

Departmental approval: admission to the Plumber's apprenticeship program.

Outcomes

Course Outcome(s):

1. Discuss the role of the plumbing industry service worker and review basic salesmanship practices needed to represent the contractor at the workplace.

Course Outcome(s):

2. Assess various drainage problems that occur and identify solutions and list the required equipment needed for rectifying problems.

Course Outcome(s):

3. Discuss the components and function of various faucets that are used in commercial and commercial units.

Course Outcome(s):

4. Discuss various problems found with supply water systems and identify solutions for leaking pipes and valves.

Course Outcome(s):

5. Describe the operation of a standard hot water tank, identify various models and discuss maintenance procedures required when repairing or replacing them.

Methods of Evaluation:

1. Homework
2. Quizzes

- 3. Tests
- 4. Participation

Course Content Outline:

- 1. Salesmanship
 - a. Personality traits
 - i. Courtesy
 - ii. Communicative
 - 1. Problem diagnosis
 - 2. Solution explanation
 - b. Problem causes
 - c. Techniques
 - i. Listening skills
 - ii. Questions and answers
 - d. Listening skills
 - i. Hearing
 - ii. Passive listening
 - iii. Attention to detail
- 2. Drainage problems
 - a. Blockage issues
 - i. Broken tile
 - 1. Footing
 - 2. Storm
 - 3. Sanitary
 - b. Snaking devices
 - i. Large drain
 - ii. Small drain
 - iii. Locators
 - c. Solutions
 - i. Cameras
 - ii. Excavation
 - iii. Repair and replace
 - iv. Stone backfill
 - v. Flushing
 - d. Safety
 - i. Trench
 - ii. Overhead electrical
 - iii. Confined space
 - iv. Tool operation
 - v. Customer property
- 3. Faucets
 - a. Manufacturers
 - i. Moen
 - ii. Chicago
 - iii. Delta
 - iv. Central brass
 - v. Historical brands
 - b. Parts
 - i. Escutcheon
 - ii. Seat
 - iii. Washer
 - iv. Stem
 - v. Posi-temp controls
 - c. Maintenance versus repair
 - i. Cost
 - ii. Age
 - iii. Customer wishes
 - iv. Availability of parts
- 4. Water supply

- a. Problems
 - i. Age of system
 - ii. Changes to the system
 - iii. Maintenance
 - iv. Environmental
 - b. Valves
 - i. Leaks
 - 1. Hot supply
 - 2. Stems
 - 3. Frequency of use
 - ii. Remedies
 - 1. Rebuild stems
 - 2. Replacement
 - c. Piping materials
 - i. Copper
 - ii. Galvanized
 - iii. Plastic
 - d. Piping problems
 - i. Poor installation
 - ii. Maintenance
 - iii. Environmental changes
5. Hot water tank
- a. Types
 - i. Heater
 - ii. Tanks
 - 1. Top fed
 - 2. Bottom fed
 - 3. Direct
 - 4. Gas
 - 5. Electric
 - b. Maintenance
 - i. Flushing
 - ii. Burner cleaning
 - c. Replacement
 - i. Comparable replacement
 - ii. Water connections
 - iii. Heating connections
 - 1. Gas
 - 2. Electric
 - iv. Start up procedures
 - d. Safety
 - i. Environmental gasElectrical hazards
 - ii. Personal protective equipment
 - iii. Plumbing codes

Resources

Steele, Alfred. *Engineered Plumbing Design*. 2nd ed. Elmhurst, IL : Construction Industry Press, 1982.

National Fire Protection Association. *Gas and Vacuum Systems*. Quincy, MA : National Fire Protectin Association, 2005.

International Pipe Trades. *Drainage*. 3rd ed. Annapolis, MD: Joint Training Committee Inc., 2005.

Resources Other

1. "How to Troubleshoot Plumbing Problems." *WikiHow*. <http://www.wikihow.com/Troubleshoot-Plumbing-Problems> (<http://www.wikihow.com/Troubleshoot-Plumbing-Problems/>), 2011.

2. www.elocalplumbers.com/resources/supplies.php (<http://www.elocalplumbers.com/resources/supplies.php>)
3. www.aplumbers.com/service/problems (<http://www.aplumbers.com/service/problems/>)

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