

APPT 198: PLUMBING SERVICE & REPAIR

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2021
Units:	5
Hours:	37 lecture, 86 laboratory per quarter (123 total per quarter)
Prerequisite:	Per California Code of Regulations, this course is limited to students admitted to the Plumbing & Pipefitting Apprenticeship Program.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	None
Grade Type:	Letter Grade (Request for Pass/No Pass)
Repeatability:	Not Repeatable

Student Learning Outcomes

- A student will be able to list characteristics of good public and customer relations.
- A student will be able to describe the steps for pressure-testing a plumbing system.

Description

This course provides students with a working knowledge of service and repair work. Students will learn basic identification and troubleshooting skills needed to complete repairs in a safe and timely manner.

Course Objectives

The student will be able to:

- Troubleshoot defective plumbing system
- Identify proper tools needed to complete repair
- Safely complete system repair
- Communicate clearly with customer the extent of repairs needed
- Complete work order paperwork legibly and correctly

Course Content

- Plumbing service and repair tools
 - Hand tools
 - Fixture tools
 - Power tools
 - Snakes and drain cleaners
 - Miscellaneous
- Safety
 - Material safety sheets
 - Job area
 - Fire
 - Confined space entry
 - Trenching and shoring

- Drain waste and vent
 - Drain cleaning
 - Video inspection
- Pipe repair
- Water jetting
 - Sewage ejector repair and maintenance
- Water distribution
 - Systems
 - Supply piping
- Pipe repair
- Flow detection
 - Cross contamination
- Gas systems
 - Piping
 - Regulator repair
- Gas service valves
- Flame control
 - Combustion
- Plumbing fixtures
 - Commercial fixtures
 - Residential fixtures
 - Bathtubs and showers
 - Drinking fountains/water coolers
- Appliances
 - Disposers
 - Dishwashers
 - Water softeners/filters
 - Reverse osmosis
- Water heaters
 - Electric/gas fired
 - Hot water supply
 - Tankless
 - Combination
 - Accessories
 - Troubleshooting
 - Code requirements
- Boilers and hydronic systems
 - Operation
 - Hot water boilers
 - Terminal devices
 - Radiant and convection heating
 - Controls
 - Troubleshooting

Lab Content

- Students will work individually and in teams to troubleshoot faulty plumbing systems.
- Site safety check to identify any hazards.
- Rebuild and/or repair faulty systems.

Special Facilities and/or Equipment

- Classroom facilities with AV capabilities
- Plumbing lab with tools and training equipment

3. Personal protective equipment

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

Written exams
Hands-on demonstration
Classroom discussion
Group exercise

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

Discussion
Demonstration
Hands-on learning

Representative Text(s) and Other Materials

United Association. Plumbing Service, Maintenance, and Repair. 2017.

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

- a. Reading
 - i. Material safety sheets
 - ii. Equipment specification sheets
 - iii. Manufacturers recommendations/repair manuals
 - iv. Textbook
 - v. Internet resources
- b. Written
 - i. Textbook worksheets
 - ii. Written analysis of defective system
 - iii. Daily report forms
 - iv. Material order forms

Discipline(s)

Plumbing