# APPT 135B: P-301B PLUMBING CODES

## Foothill College Course Outline of Record

| Heading | Value |
|---|---|
| **Effective Term:** | Summer 2023 |
| **Units:** | 4.5 |
| **Hours:** | 54 lecture per quarter (54 total per quarter) |
| **Prerequisite:** | Per California Code of Regulations, this course is limited to students admitted to the Plumbing Technology Apprenticeship Program. |
| **Advisory:** | Not open to students with credit in APPR 119. |
| **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 successful student will be able to define the term as it pertains to the UPC.
- A successful student will be able to define the term "fixture unit".
- A successful student will be able to demonstrate knowledge of code requirements for clean-outs.

## Description

Students learn and demonstrate the procedures for coordinating the testing and inspection of plumbing systems and applicable codes that a plumbing systems test must meet. Knowledge of general regulations, including accessibility and ADA requirements, is also discussed.

## Course Objectives

The student will be able to:

a. Define terms used in the Uniform Plumbing Code
b. Demonstrate ability to locate and apply applicable code sections
c. Demonstrate ability to properly size drain/waste/vent, potable water, and fuel gas systems

## Course Content

a. Define terms used in Uniform Plumbing Code
   i. National, state, and local standards and codes
   ii. Administration and definition of terms
   iii. Various types of plumbing system tests
   iv. Testing and inspection of plumbing systems
b. Demonstrate ability to locate and apply applicable code sections
   i. UPC, Chapter 1, Administration
   ii. UPC, Chapter 2, Definitions
   iii. UPC, Chapter 3, General Regulations
   iv. UPC, Chapter 4, Plumbing Fixtures and Fixture Fittings, ADA requirements
   v. UPC, Chapter 5, Water Heaters as presented in Chapter 5 of the UPC
   vi. UPC, Chapter 6, Water Supply and Distribution
   vii. UPC, Chapter 7, Sanitary Drainage
   viii. UPC, Chapter 8, Indirect Wastes
   ix. UPC, Chapter 9, Vents
   x. UPC, Chapter 10, Traps and Interceptors
   xi. UPC, Chapter 11, Storm Drainage
   xii. UPC, Chapter 12, Fuel Piping
   xiii. UPC, Chapter 13, Health Care Facilities
   xiv. UPC, Chapter 14, Referenced Standards
   xv. UPC, Chapter 15, Firestop Protection
c. Demonstrate ability to properly size drain/waste and vent, potable water, and fuel gas piping systems
   i. Calculate sanitary drainage pipe sizing
   ii. Calculate sanitary vent pipe sizing
   iii. Methods and procedures for potable water pipe sizing
   iv. Methods and procedures for sizing fuel gas piping

## Lab Content

Not applicable.

## Special Facilities and/or Equipment

1. Laboratory with plumbing and piping equipment.
2. When taught via Foothill Global Access, on-going access to computer with email software and hardware; email address.

## Method(s) of Evaluation

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

Results of written exercises and final examination
Satisfactory completion of hands-on projects
Maintenance of a student's workbook with questions drawn from text

## Method(s) of Instruction

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

Lecture
Group discussion
Demonstration

## Representative Text(s) and Other Materials

. California Plumbing Code: California Code of Regulations, Title 24. 2019.

International Association of Plumbing and Mechanical Officials. Uniform Plumbing Code Study Guide. 2018.

We will adopt the next edition of each text, as it is published.

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

a. Readings from assigned textbook, California Plumbing Code: California Code of Regulations, Title 24, Chapter 3
   i. General Regulations, Section 301.0, Materials - Standards and Alternates
b. Writing assignments
   i. Make a schematic drawing of a basic natural gas piping system
   ii. Describe properties and indicate pipe size of each point in the system

## Discipline(s)

Plumbing