

COURSE INFORMATION

Course prefix/No.:	BCT 154
Course Title:	Plumbing Tests and Connections
Lecture Hours/Week:	2
Lab Hours/Week:	3
Credit Hours/Semester	3

Distance Learning Attendance/VA Statement Textbook Information

COURSE DESCRIPTION:

This course is a study and application of DWV piping systems, testing DWV piping, testing water lines, testing faucets and valves, and installing water heaters.

COURSE COMPETENCIES:

Upon successful completion of this course, the student should be able to:

Module 1. Water Distribution Installation

- Prepare a material takeoff from a given set of plans.
- Use plans and fixture rough-in sheets to determine the location of fixtures and the route of the water supply piping.
- Properly size and install water meter.
- Correctly modify structural members without weakening the structure.
- Properly install a water distribution system using appropriate hangers.
- Correctly explain the procedures for testing a water distribution system.
- Properly test water distribution systems in accordance with applicable codes.

Module 2. Introduction to Drain, Waste, and Vent (DWV) Systems.

- Explain how waste moves from a fixture through a drain system to the environment.
- Identify and describe major segments of a DWV system.
- Identify the different kinds of drain, waste and vent (DWV) fittings and describe their applications.
- Size the various segments of a DWV system.
- Describe and explain the operation of a conventional septic system.

Module 3. Installing and Testing DMV Piping

- Prepare a material takeoff from a given set of plans.
- Follow plans and rough-in sheets to mark locations for fixtures and lay out the route for the plumbing.
- Correctly install a DMV system using appropriate hangers and correct grade.
- Properly modify structural members using the appropriate tools without weakening the structure.
- Explain the procedures for testing a DMV system.
- Properly test a DMV system.

Module 4. Fixture and Equipment Installation

- Describe the procedures to be followed in installing fixtures.
- Correctly install bathtubs, shower stalls, valves and faucets.
- Correctly install water closets, urinals and bidets.
- Correctly install lavatories, sinks and pop-up drains.
- Describe the basic operation of water heaters.
- Identify and explain the functions of main components of water heaters.
- Correctly install gas water heaters.
- Correctly install electric water heaters.

STANDARDS:

Assignments and attendance must be completed as designated in “Evaluation Strategies/Grading.” Criteria for minimal acceptable performance will be provided by the instructor.

REQUIREMENTS:

Attendance Policy

The college attendance policy, stated in the college handbook, will be honored.

Academic Honesty

Students are expected to adhere to the college policy regarding student conduct as stated in the college handbook.

Assignments

Students are expected to complete all assignments and any supplementary exercises designated by the instructor.

EVALUATION STRATEGIES/GRADING:

Successful completion of the course requires the completion of each of the four modules, all tests/projects (minimum of four total), and all assignments. Students must earn at least a "C" in order for the course to serve as a prerequisite and for the course to apply towards a certificate.

Grading Scale:

A = 90 - 100

B = 80 - 89

C = 70 - 79

D = 60 - 69

F = 0 - 59

Evaluation Method:

Tests/Projects (minimum of four total)	12.50% of each Module
Work Attitude	6.25% of each Module
Lab	6.25% of each Module

25% X 4 module grades = 100% Final Grade

Work Attitude is defined as:

- Participation
- Cooperation
- Appearance
- Effort
- Safety
- Responsibility
- Professionalism
- Attendance
- Self Motivation
- Works Independently

ENTRY LEVEL SKILLS:

The student must be able to read and solve basic mathematical equations. Students should demonstrate hand eye coordination, manual dexterity, and be able to work in an industrial environment.

PREREQUISITES/CO-REQUISITES:

Prerequisites:

BCT 105 and BCT 112

Co-requisites:

None

METHODS OF INSTRUCTION:

Lectures, reading assignments, projects, discussions, video presentations, multimedia presentations, and web content are the major teaching methods used in this course. See instructor for specifics.

LAB EXERCISES: (See addendum or instructor for additional details)

Effective Date: SP06