COURSE INFORMATION

Course prefix/No.:	**BCT 157**
Course Title:	**Residential/Commercial Plumbing Codes**
Lecture Hours/Week:	**3.0**
Lab Hours/Week:	**0.0**
Credit Hours/Semester	**3.0**

Distance Learning Attendance/VA Statement
Textbook Information

COURSE DESCRIPTION:

This course is a study of the national and/or international plumbing code requirements as they apply to residential and commercial construction.

COURSE COMPETENCIES:

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

Module 1. Introduction to Plumbing Codes and General Regulations

- Describe the intent and applicability of the Plumbing Code.
- Explain rules of the SC Plumbing code on additions, alterations or repairs of existing plumbing.
- Describe the Duties and Powers of the Code Officials.
- Describe the testing requirements and methods for Plumbing systems.
- Discuss when Permits are necessary and the application process for permits.
- Discuss Violations and Means of Appeal.
- Discuss general Plumbing terms and their definitions

Module 2. Plumbing Fixture and Water Heaters

- Identify the standards organizations with abbreviations ASME, ASTM, ASSE, ANSI and NSF and describe the role of standards organizations.
- Describe the code requirements for construction and installation of showers, lavatories and water closets.
- Locate in the code rules that apply to bathtubs, sinks, laundry tubs, food waste grinders, dishwashing machines, clothes washing machines, floor drains, whirlpool bathtubs, and bidets.
- Describe the code requirements for water heaters, relief valves for water heaters and water temperature limits

Module 3. Water Distribution Systems

- Identify and interpret codes that apply to protection of potable water supply.

- Locate and explain flow rate and flow pressure requirements for various fittings and fixtures.
- Describe the specifications for types of water distribution lines and acceptable methods for joining them
- Locate and explain methods for joining pipes and fittings of differing composition.
- Explain acceptable methods for supporting distribution piping.

Module 4. Sanitary Drainage, Vents and Traps

- Explain the specifications for the composition and features of DWV piping and fittings.
- Describe kinds of joints and connections that are prohibited by the code.
- Describe types of joints and connections allowed by the code.
- Calculate DWV load by using code charts.
- Use tables to size and determine slope for drains.
- Explain rules for sizing and placing cleanouts.
- Describe code requirements for the venting of systems and fixtures.
- Explain venting techniques permitted by the code.
- Properly use the code to size vent piping and layout venting systems.
- Explain trap features required by the code.
- Locate and use code chart to size traps.

Module 5. Plumbing for fuel gas

- Explain rules for maintaining structural safety in installation of gas piping.
- Name prohibited locations for placing gas appliances.
- Explain rules on combustion, ventilation and dilution air.
- Use tables to determine clearances for appliances and equipment.
- Locate and explain rules that apply to electrical grounding, connections and bonding.
- Use tables to size schedule 40 metallic pipe, semi-rigid copper pipe, plastic pipe and corrugated stainless steel tubing.
- Explain the rules on joints and fittings for schedule 40 metallic pipe, semi-rigid copper pipe, plastic pipe and corrugated stainless steel tubing.
- Describe acceptable methods for connecting appliances to the piping system.
- Describe requirements for shutoff valves and flow controls.
- Describe acceptable procedures for inspecting, testing, and purging fuel gas systems.
- Locate and explain rules for sizing vents and exhausts.

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:

Students must complete all modules, including assignments, projects, and tests. 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 (minimum of five total)	50% of each Module
Work Attitude	25% of each Module
Homework/Projects	25% of each Module

20% X 5 module grades = 100% Final Grade

Work Attitude is defined as:

- Participation
- Cooperation
- Safety
- Professionalism
- Attendance
- Self Motivation
- Works Independently

ENTRY LEVEL SKILLS:

The student must be able to read and solve basic mathematical equations.

PREREQUISITES/CO-REQUISITES:

Prerequisite: RDG 031

Co-requisite: 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.

Disabilities Statement
Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Offices (SR)) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.