**BARTON COMMUNITY COLLEGE**

**COURSE SYLLABUS**

# **GENERAL COURSE INFORMATION**

Course Number: PLMB 1020

Course Title: Introduction to Plumbing

Credit Hours: 3

Prerequisite: PLMB 1001 Plumbing Safety

Division/Discipline: Workforce Training and Community Education/Plumbing

Course Description: This course introduces with the tasks and responsibilities of professionals in the construction industry. Course topics include: proper use, care, and maintenance of basic plumbing tools used to measure, lay out, cut, drill, bore, and ream. Basic math, construction drawings, and applicable code requirements are also included.

1. **INSTRUCTOR INFORMATION**

# **COLLEGE POLICIES**

Students and faculty of Barton Community College constitute a special community engaged in the process of education. The College assumes that its students and faculty will demonstrate a code of personal honor that is based upon courtesy, integrity common sense, and respect for others both within and outside the classroom.

Plagiarism on any academic endeavors at Barton Community College will not be tolerated. The student is responsible for learning the rules of, and avoiding instances of, intentional or unintentional plagiarism. Information about academic integrity is located in the Student Handbook.

The College reserves the right to suspend a student for conduct that is determined to be detrimental to the College educational endeavors as outlined in the College Catalog, Student Handbook, and College Policy & Procedure Manual. (Most up-to-date documents are available on the College webpage).

Any student seeking an accommodation under the provisions of the Americans with Disability Act (ADA) is to notify Student Support Services via email at disabilityservices@bartonccc.edu.

# **COURSE AS VIEWED IN THE TOTAL CURRICULUM**

This course is intended to prepare entry level employees or train incumbent workers in the plumbing industry to perform identified job tasks to comply with federal regulations and industry standards. The course includes practical and classroom training. Upon successful completion of the course participants will be prepared to demonstrate identified skills to employers for qualification purposes.

# **ASSESSMENT OF STUDENT LEARNING**

Barton Community College is committed to the assessment of student learning and to quality education. Assessment activities provide a means to develop an understanding of how students learn, what they know, and what they can do with their knowledge. Results from these various activities guide Barton, as a learning college, in finding ways to improve student learning.

## Course Outcomes, Competencies, and Supplemental Competencies:

1. Describe the tasks and responsibilities of professionals in the construction industry.
	1. Describe the history of the plumbing profession.
	2. Identify the responsibilities of a person working in the plumbing industry.
	3. State the personal characteristics of a professional.
	4. Identify the stages of progress within the plumbing profession and its positive impact on society.
	5. Identify how green technology is incorporated into plumbing.
2. Demonstrate how to safely use, properly care for, and maintain plumbing tools.
	1. Identify the basic hand and power tools used in the plumbing trade.
	2. Demonstrate the proper use of plumbing tools.
	3. Demonstrate the ability to select the proper tool(s) for tasks.
	4. Demonstrate proper maintenance and storage for hand and power tools.
	5. Describe the safety requirements for using power and hand tools common to the plumbing trade.
3. Apply basic math to calculate pipe length and fitting allowances.
	1. Add, subtract, multiply, and divide whole numbers, fractions and decimals.
	2. Convert decimals to percentages and percentages to decimals.
	3. Convert fractions to decimals and decimals to fractions.
	4. Explain what the metric system is and how it is important in the plumbing trade.
	5. Square various numbers and take square roots of numbers, with and without a calculator.
	6. Identify the parts of a fitting and use common pipe-measuring techniques.
	7. Use fitting dimension tables to determine fitting allowances and thread makeup.
	8. Calculate end-to-end measurements using fitting allowances and thread makeup.
	9. Identify the functions of a construction calculator.
	10. Measure pipe using a variety of methods.
	11. Determine end-to-end dimensions by figuring fitting allowances and thread makeup.
4. Demonstrate how to read, interpret, and sketch construction drawings.
	1. Identify various plumbing drawings and describe how the different views are used.
	2. Identify the basic symbols used in schematic drawings of pipe assemblies.
	3. Explain the types of drawings in a complete set of drawings and how they relate to each other.
	4. Interpret plumbing-related information from a set of drawings.
	5. Sketch an orthographic and isometric drawing.
	6. Use an architect’s scale to draw lines to scale and to measure lines drawn to scale.
	7. Describe how code requirements apply to certain drawings.
	8. Sketch an orthographic and isometric drawing.
5. **INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS**

# **TEXTBOOKS AND OTHER REQUIRED MATERIALS**

# **REFERENCES**

# **METHODS OF INSTRUCTION AND EVALUATION**

# **ATTENDANCE REQUIREMENTS**

1. **COURSE OUTLINE**