APPT 167: PIPEFITTING TECHNOLOGIES II

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2024
Units:	4.5
Hours:	36 lecture, 63 laboratory per quarter (99 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 Only
Repeatability:	Not Repeatable

Student Learning Outcomes

- A student will be able to layout, cut and fit piping systems.
- A student will be able to rig equipment and demonstrate knot tying.
- A student will be able to recognize, classify and demonstrate steam piping systems and equipment.

Description

Fourth year of the Plumbing and Pipefitting Apprenticeship program. This course provides students with a working knowledge of layout, cut, and fit for water piping and steamfitting systems.

Course Objectives

The student will be able to:

1. Lay out, cut, and fit piping systems
2. Recognize, classify, and demonstrate steam and service systems
3. Rig equipment related to the trade
4. Demonstrate piping system assembly

Course Content

1. Design to lay out, cut, and fit-up
   a. Joints and connections
   b. Water/condensate return systems
2. Recognize and classify steam and service systems
   a. Prep steam boiler systems
   b. Attend/participate in work on hydro crane
   c. Steam prefabrication service
3. Rigging equipment installations
   a. Securing loads
   b. Safety
4. Pipefitting technology
   a. Fittings related to the trade

Lab Content

Students will work individually and in teams to lay out and design/cut piping to fit specific plan requirements in the lab:

1. Components for steam systems used by the United Association of Journeymen and Apprentices
2. Components for rigging systems used by the United Association of Journeymen and Apprentices

Special Facilities and/or Equipment

1. Laboratory with piping/rigging tools
2. Personal protective equipment
3. 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:

Written examination
Hands-on demonstration
Chapter quizzes
Group and classroom participation
Punctuality

Method(s) of Instruction

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

Lecture
Discussion
Laboratory
Demonstration

Representative Text(s) and Other Materials

United Association of Journeymen and Apprentices. Steam Systems. 2015.

United Association of Journeymen and Apprentices. Rigging. 2020.

U.A.. Welding Practices and Procedures for the Pipe Trades. 2016.

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

1. Readings from the textbooks
   a. International Pipe Trades Steam Systems
   b. International Pipe Trades Rigging Systems
   c. OSHA & Safety Practices for Steam Systems and Rigging Systems
   d. Welding Practices and Procedures for the Pipe Trades
2. Writing assignments include homework assignments for identifying steam system components and fitting identification

Discipline(s)

Plumbing