

APPT 167: STEAM SYSTEMS/ RIGGING/PIPE FITTING & SERVICE

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2022
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:

- a. Lay out, cut and fit piping systems
- b. Recognize, classify and demonstrate steam and service systems
- c. Rig equipment related to the trade
- d. Demonstrate knot tying

Course Content

- a. Layout, cut and fit-up
 - i. Joints and connections
 - ii. Water/condensate return systems
- b. Recognize and classify steam and service systems
 - i. Prepare steam boilers
 - ii. Attend/participate in field trip to Sheedy Drayage, Inc. to work on hydro crane
 - iii. Steam system service
- c. Rigging equipment installations
 - i. Securing loads
 - ii. Safety

- d. Knot tying
 - i. Knots related to the trade

Lab Content

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

- a. Components for steam systems used by the United Association of Journeymen and Apprentices
- b. 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.
. Hydronic Heating and Cooling. 2016.

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

- a. Readings from the textbooks
 - i. International Pipe Trades Steam Systems
 - ii. International Pipe Trades Rigging Systems
 - iii. OSHA & Safety Practices for Steam Systems and Rigging Systems
- b. Writing assignments include homework assignments for identifying steam system components and knot identification for rigging

Discipline(s)

Plumbing