

# APSM 178C: FOREMAN TRAINING/PROJECT MANAGEMENT FOR HVAC

## Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2022
Units:	2.5
Hours:	32 lecture, 8 laboratory per quarter (40 total per quarter)
Prerequisite:	Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	None
Grade Type:	Letter Grade (Request for Pass/No Pass)
Repeatability:	Not Repeatable

## Student Learning Outcomes

- A successful student will be able to describe the responsibilities of a foreman.
- A successful student will be able to discuss and further research tools and techniques available to the foreman and project manager.

## Description

Students will describe the role and responsibilities of jobsite foreman and project managers. Students will prepare a sample job cost tracking worksheet.

## Course Objectives

The student will be able to:

1. Define construction site organizational chart and role of a foreman
2. Describe the responsibilities of a foreman
3. Complete a foreman self-evaluation
4. Describe the attributes of a foreman
5. Discuss factors that motivate sheet metal workers
6. Discuss personal and workplace goals
7. Discuss workplace diversity and proper workplace behavior
8. Define the role and attributes of the project manager
9. Discuss the types of construction documents a project manager needs to be familiar with
10. Discuss job cost tracking
11. Discuss jobsite project management
12. Discuss legal considerations

## Course Content

1. Define construction site organizational chart and role of a foreman
  - a. Define a typical construction site organizational chart (Lec)
  - b. Define the role of a foreman (Lec)
2. Describe the responsibilities of a foreman
  - a. Describe the responsibilities of a foreman and the reasons to become a foreman (Lec)
3. Complete a foreman self-evaluation
  - a. Describe characteristics needed to be an effective foreman (Lec and Lab)
  - b. Perform a self-evaluation (Lec and Lab)
4. Describe the attributes of a foreman
  - a. Discuss the main attributes of successful foreman (Lec)
5. Discuss factors that motivate sheet metal workers
  - a. Discuss positive and negative motivators of workers (Lec)
6. Discuss personal and workplace goals
  - a. Discuss personal goals of a foreman (Lec)
  - b. Discuss workplace goals of a team (Lec)
7. Discuss workplace diversity and proper workplace behavior
  - a. Discuss human relations and types of diversity in the workplace (Lec and Lab)
  - b. Discuss proper workplace behavior and its issues and impacts (Lec and Lab)
8. Define the role and attributes of the project manager
  - a. Define the attributes and duties of the project manager (Lec)
9. Discuss the types of construction documents a project manager needs to be familiar with
  - a. Discuss the various documents a project manager must be familiar with (Lec)
10. Discuss job cost tracking
  - a. Define profit, direct and indirect job costs (Lec and Lab)
  - b. Discuss methods of tracking and controlling job costs (Lec and Lab)
11. Discuss jobsite project management
  - a. Discuss preparation, scheduling, documentation, quality control and production (Lec and Lab)
12. Discuss legal considerations
  - a. Discuss contract legal issues (Lec)
  - b. Discuss workplace legal issues (Lec)
  - c. Discuss project close out and warranty (Lec)

## Lab Content

1. Gather information needed and prepare job assignments for crew members as a class project, per instructions
2. Monitor, record and act on crew assignments

## Special Facilities and/or Equipment

1. Laboratory with sheet metal test and balance tools and sample system components
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:

Results of written quizzes and tests  
Responses in class discussions  
Application of concepts in assigned projects  
Comprehensive written final examination

## **Method(s) of Instruction**

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

Lecture  
Discussion  
Demonstration  
Lab assignments followed by discussion

## **Representative Text(s) and Other Materials**

International Training Institute for the Sheet Metal and Air Conditioning Industry. [Foreman Training](#). 2007.

International Training Institute for the Sheet Metal and Air Conditioning Industry. [Project Management](#). 2007.

These are the standard sheet metal textbooks/workbooks used for this course. Although one or more may not be within five years of the required published date, they are the most current books used when teaching this course.

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

1. Sample reading assignment: From the textbook, chapters on foreman training
2. Sample writing assignment: List responsibilities and attributes of a typical successful foreperson

## **Discipline(s)**

Sheet Metal