

JRYM 418: 5X5 TRAINING: SAFETY/PRODUCTION/ SCHEDULING/COST CONTROL/ QAQC

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Fall 2026
Units:	0
Hours:	1-2 hours lecture total per quarter.
Prerequisite:	This course is limited to students employed with Cupertino Electric.
Degree & Credit Status:	Non-Degree-Applicable Non-Credit Course
Foothill GE:	Non-GE
Transferable:	None
Grade Type:	Non-Credit Course (Receives no Grade)
Repeatability:	Unlimited Repeatability

Student Learning Outcomes

- Conduct job hazard analyses (JHA) and personal risk assessments (PRA) to identify task-specific hazards and associated risks before work begins
- Develop and follow a safety roadmap that outlines hazard controls, safe work practices, and mitigation strategies for assigned tasks
- Track and document labor hours and productivity effectively to support accurate reporting and performance evaluation
- Apply Standard Work Instructions (SWI) to ensure consistent execution of tasks in accordance with CEI's standardized means and methods
- Create and maintain CEI project schedules, including master schedules and 3-week look-ahead schedules, in accordance with CEI planning standards, and identify and establish key milestone dates to support effective project planning and execution
- Monitor and manage the average rate per project to support cost control and productivity objectives, and track and oversee tool utilization to ensure efficient use of CEI-owned and rented tools
- Conduct in-process inspections to verify work is installed in accordance with approved plans, specifications, and quality expectations, and verify that projects are utilizing the most current and approved construction documents and drawings

Description

This course offers 5x5 training options: safety, production, scheduling, cost control, and QAQC.

Course Objectives

The student will be able to:

1. Perform job hazard analyses (JHA) and personal risk assessments (PRA) in safety training.

2. Develop and follow a safety roadmap, and understand roles and responsibilities in workplace safety in safety training.
3. Conduct weekly safety audits; read and comprehend the Injury and Illness Prevention Program (IIPP) in safety training.
4. Effectively track labor, apply Standard Work Instructions (SWI), and manage MHPI and percent completion during production training.
5. Oversee manpower allocation, support the development of Foremen and General Foremen, and utilize CEI's standardized means and methods as part of production training.
6. Create and maintain CEI schedules (master and 3-week) as part of scheduling training.
7. Determine milestone dates, collaborate with internal and external teams to meet those milestones, manage project impacts, and develop accurate job projections as part of scheduling training.
8. Manage the average rate per project, oversee tool utilization, handle material ordering, manage tools (rentals and CEI), and drive subcontractor performance in cost control training.
9. Conduct in-process inspections, ensure projects utilize the most current documentation, update record drawings weekly, verify installation drawings for accuracy, and perform supervisor quality walks in QAQC training.

Course Content

1. 0.5 hour training on safety
 - a. Principles and procedures for conducting job hazard analyses (JHA) and personal risk assessments (PRA)
 - b. Safety roadmap
 - c. Injury and Illness Prevention Program (IIPP)
 - d. Roles and responsibilities
2. 0.5 hour training on production
 - a. Track labor effectively
 - b. Standard work instructions (SWI) - consistent execution and quality across tasks
 - c. Man-hours per installation (MHPI) and percent completion metrics
 - d. Manpower allocation
3. 0.25 hour training on scheduling
 - a. Create and maintain schedules
 - b. Master schedules and 3-week look-ahead schedules
 - c. Milestone dates
 - d. Internal and external teams collaborations
 - e. Project impacts
4. 0.25 hour training on cost control
 - a. Manage the average rate per project to align labor and material costs with budgetary goals
 - b. Oversee tool utilization to ensure efficient use of equipment
 - c. Handle material ordering processes to support project timelines, reduce waste, and control inventory
 - d. Tools management
5. 0.5 hour training on QAQC
 - a. Conduct in-process inspections to identify and address issues early in the construction phase
 - b. Ensure projects utilize the most current documentation, including drawings, specifications, and procedures, to maintain consistency and compliance

- c. Update record drawings on a weekly basis to reflect field changes and support accurate as-built documentation
- d. Verify installation drawings for accuracy to ensure work is performed according to approved plans and design intent
- e. Perform supervisor quality walks to evaluate workmanship, identify deficiencies, and reinforce accountability on the jobsite

Lab Content

Not applicable.

Special Facilities and/or Equipment

1. When taught in-person, clean classroom with monitor and printed material for students to take as reference materials.
2. When taught online, this course requires access to CEI's Learning Management System (Amplify), ongoing access to a computer with the necessary software and hardware to view video content, and a reliable intranet connection.

Method(s) of Evaluation

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

Results of class participation

Method(s) of Instruction

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

Lectures

Representative Text(s) and Other Materials

Course materials provided by Cupertino Electric.

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

No assignments.

Discipline(s)

Electricity