



CONSTRUCTION SUPERVISION FUNDAMENTALS

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The Construction Supervision Fundamentals (CSF) Education Program is designed for aspiring front-line leaders looking to learn entry-level management skills to lead construction activities.

This course is the first step on the path to developing construction supervisors. This interactive course allows the building trades and craft workers to experience construction supervision techniques firsthand and create a professional development plan to achieve personal career goals.

This highly interactive course presents basic information about the skills and knowledge needed for successful construction supervision. This course is around 25 hours of instruction broken down into nine units.

Unit 1 | Team Management

This unit identifies basic management functions and responsibilities of construction companies and how supervisors effectively manage the relationship dynamics between employees, supervisors, contractors, suppliers, and others that are part of each project team.

Learning Objectives

Upon completion of the activities in this session, learners will be able to:

- Identify the hierarchy of supervisory positions on the job and in your company.
- Explain your company mission and values.
- Apply company values to create and sustain a work culture and establish expectations.
- Explain the role of human resources professionals in hiring, evaluating, disciplining, and terminating employees.
- Identify legal requirements for supervisors in hiring, evaluating, disciplining, and terminating employees.
- Recognize and value diversity in the workforce.

- Define the supervisor's requirements to eliminate discrimination on the job site.
- Explain how to identify and eliminate harassment on the job site.

Unit 2 | Project and Team Leadership

This unit introduces learners to construction supervision and provides learners with tools that will help them organize and acclimate to the challenges of construction supervision. It offers basic leadership and motivation principles and an introduction to leadership styles to help them build relationships with others.

Learning Objectives

Upon completion of the activities in this session, learners will be able to:

- Define the basic elements of construction supervision.
- Identify, organize, and prioritize supervision responsibilities.
- Describe how to build relationships using various leadership styles and your team's engagement.
- Explain leadership and motivation characteristics.
- Describe examples of good leadership.

Unit 3 | Communication Skills

This unit is designed to help learners understand the importance of effective communication and emphasizes sorting, facilitating, and managing the flow of information that construction supervisors encounter in their daily work.

Learning Objectives

Upon completion of the activities in this session, learners will be able to:

- Recognize the supervisor's role in the flow of communication on the job.
- Describe barriers to communication.
- Describe how to eliminate barriers to effective communication.
- Recognize and define the different forms of communication commonly used by construction companies and supervisors.
- Demonstrate effective oral and written communication skills.
- Describe good practices for using electronic communication devices efficiently.
- Describe how to be a good listener.
- Describe how to handle confrontations effectively.
- Describe requirements for giving orders and providing instruction.

Unit 4 | Time Management and Project Scheduling

This unit presents information about planning, scheduling, and effectively managing time. Supervisors are expected to carefully plan work so that it is completed within the constraints of the budget and schedule. This session provides learners with several tools to help them accomplish these goals.

Learning Objectives

Upon completion of the activities in this session, learners will be able to:

- Define the importance of planning and organizing your work.
- Identify effective time management techniques.
- Describe how to minimize non-productive activities.
- Explain the need to maximize the return on your time investment.
- Describe how to reduce stress through better management of your time.
- Explain each step in the eight-step planning process.
- Develop a work plan.
- Utilize schedules to identify activities, durations, and activity relationships for planning purposes.
- Develop a bar (Gantt) chart.
- Develop a short-term production schedule.

Unit 5 | Risk Management

Construction supervisors must actively consider risk, hazards, and safety daily. They must understand that there are risks involved in construction projects. Supervisors must learn how hazards and hazardous conditions create economic and human consequences. This unit presents information about how to eliminate or reduce/manage these conditions that affect the health and safety of their workers and the financial stability of their company.

Learning Objectives

Upon completion of the activities in this session, learners will be able to:

- Describe the benefits of a safe and healthful workplace, free of recognized risks and hazards.
- Define the supervisor's responsibility for safety.
- Explain how safety affects a company's competitive position and profitability.
- Recognize stress characteristics and their impact on safety performance.
- Identify hazards and plan ways to eliminate or reduce them.
- List the direct and indirect costs of an accident.
- Explain how Experience Modification Rates (EMR) affect your company's ability to compete.

- Describe Occupational Safety and Health Administration (OSHA) and Mining Safety and Health Administration (MSHA) administrative requirements and standards.
- Recognize the impact of drug and alcohol abuse on productivity and safety.
- Identify risk potential at all levels of your project... quality, financial, and legal.
- Explain the risk/reward concept of business strategies.

Unit 6 | Construction Law and Contract Documents

In this unit, learners will study the definition of contract and peripheral documents used on a construction project. They will learn that various documents have specific roles and functions and facilitate relationships between contractual parties. They will understand their role in controlling quality, time, and cost and how they can help avoid or resolve project disputes.

Learning Objectives

Upon completion of the activities in this session, learners will be able to:

- Describe different contract documents to define the roles and responsibilities of those on a construction project.
- Explain the requirements for change orders.
- Describe how to manage change orders and make them a profit center.
- Explain different time impacts that can affect your schedule and work planning.
- Explain that the Dispute Resolution Process stresses resolving disputes at the lowest possible level.
- Describe the guidelines of contract law for your work.
- Describe Contract Documents and Your Responsibilities.

Unit 7 | Problem Resolution

This unit is designed to help learners understand the importance of problem identification and resolution. Coupled with skill in making the appropriate decision at the right time, supervisors will be successful. Their decisions directly impact the people and work they supervise. This session presents a logical, sequential, and analytical method of identifying problems, seeking opportunities, and deciding on effective solutions.

Learning Objectives

Upon completion of the activities in this session, learners will be able to:

- Describe the importance of accurately identifying problems.
- Describe the perspective of a problem-solving attitude.
- Identify potential solutions to problems.

- Identify opportunities for improvement.
- Use the seven-step decision-making process.

Unit 8 | Productivity and Cost Control

In this unit, learners will study cost awareness, cost control, and productivity on their projects. Every supervisor should be able to use unit costs to determine budgetary information.

Learning Objectives

Upon completion of the activities in this session, learners will be able to:

- Describe how a construction estimate is established.
- Explain the difference between conceptual and detailed estimates.
- Develop material estimates.
- Describe how to use unit prices to control labor and equipment budgets.
- Describe how to measure the productivity of equipment and labor.
- Explain how to increase productivity.
- Describe means for improving labor productivity on your job.
- List ten steps to improve equipment productivity on your job.
- Identify ways to improve the productivity of suppliers and specialty contractors.

Unit 9 | Skill Development

This unit allows learners to reflect upon the information presented in this course and apply what they have learned on their job sites.

A self-assessment tool will help them determine the strengths and weaknesses in their supervisory skills and knowledge. Using that information and career information from this session, they will develop a one- and five-year career development plan and review those plans with a mentor from their company.

Learning Objectives

Upon completion of the activities in this session, learners will be able to:

- Review concepts and key elements of each session.
- Recognize and understand the career opportunities available to construction industry workers.
- Determine educational opportunities, including AGC programs, that offer training to prepare a person for advancement in the construction industry.
- Assess the level of skills and knowledge necessary to advance your career.
- Plan for career advancement.