



NCCER PROJECT MANAGEMENT MODULE DESCRIPTIONS

Module 1 - Introduction to Project Management

The construction project manager plays a vital role in ensuring a project's overall success. Beginning with the initial construction request, the project manager shoulders the responsibility for planning, organizing, estimating, and scheduling the activities and resources necessary for completing a building project according to plan. Whether it is a residential, commercial, industrial, or civil project, construction project managers use similar skills and techniques to coordinate and plan all phases of a construction project. Along with fundamental project management knowledge, the successful construction project manager possesses strong communication skills, a thorough understanding of the building process, and the ability to identify and resolve risks that could prevent the project from being constructed on time and within budget. The construction project manager may also be tasked with understanding financial challenges, interviewing, and hiring construction workers; and monitoring many of the day-to-day activities that occur on all construction sites.

Module 2 - Safety

Your safety and loss prevention program should provide the framework for meeting the company's obligation to operate in a safe, efficient, and profitable manner. It should be included in all phases of your operation and involve employees at every level. This module contains suggestions, checklists, and audit forms that may be useful to you. Keep in mind that these are resources and references that you may modify, expand, or condense to suit your specific needs.

Module 3 - Interpersonal Skills

While planning and managing projects, there will be issues and challenges that need to be resolved. An effective project manager will be able to resolve issues before they become serious problems. In this module, you will learn two essential management skills: problem solving and negotiating.

Module 4 - Issues and Resolutions

Describes the key elements of successful negotiations and negotiating techniques. Discusses how to recognize nonverbal signals, use negotiating tools, and apply conflict resolution strategies. Identifies symptoms and barriers to solving project-related problems and applying problem-solving techniques, brainstorming, and identifying root cause consequences.

Module 5 - Construction Documents

Documentation is vital for a successful business. Numerous studies indicate that poor documentation causes the most problems for industry, followed by poor administration. Documentation is the who, what, where, when, and how of a construction project. It is a collection of facts that record and document the actual history of the project. The specific documentation you will need to maintain depends on the type of project and the needs of the owner, the architect/engineer, the contractors, and the project team members. Without exception, all projects should have some form of documentation.

Module 6 - Construction Planning

Most construction activities are quite simple. Complexity results from having to perform those activities in a specific sequence and within a scheduled time frame. As project manager, it is your job to ensure that the project makes a profit for the company. This means making the most efficient use possible of all the equipment, materials, and workers and coordinating them with the resources on other projects.



Module 7 - Estimating and Cost Control

The goal of a construction project manager is to build projects to the standards established in the drawings and specifications, and to do it within the estimated time and cost to meet contract requirements. You must understand budgeted, actual, and projected costs and be able to perform cost analysis. Using these skills effectively allows you to be aware of the cost of doing the work, the cost impact of rework, and how to exercise controls to keep costs in line. This module presents information on cost estimating, project cost awareness, and cost control. In addition, it offers the project manager the tools necessary for analyzing job costs. As a project manager, you should always keep in mind that you are responsible for ensuring that your company makes a profit.

Module 8 - Scheduling

Effective schedules are based on good planning. Once the project is broken down into tasks necessary to complete the work, developing a schedule will then define how the project tasks will be completed. The project manager usually develops the project schedule with input from others, including estimators, foremen, superintendents, and managers. This approach will result in a realistic schedule and a successfully completed project.

Module 9 - Resource Control

The project manager is responsible for controlling production so that the project is built within the specified time and allocated budget. This means controlling the use of resources, maintaining a safe work environment, being constantly aware of productivity rates, and, when necessary, reviewing and revising work methods. The resources that must be controlled are materials, tools and equipment, labor, time, space, and money. This module examines the topic of resource control and the various parameters within it.

Module 10 - Quality Control and Assurance

In any construction company, quality should be as much the responsibility of the president as the project manager and craftworker. As project manager, you must be aware of the fundamental concepts of an effective quality control and assurance process and apply them in day-to-day management activities. Many companies have established quality standards covering all aspects of quality control and assurance, from pre-planning to final inspection. Project managers in such companies should become familiar with these standards and incorporate them into their daily activities.

Module 11 - Continuous Improvement

In today's construction industry, many companies have an improvement process that is integrated into their business model to better achieve their quality standards and client satisfaction. In this module, you will explore the process of continuous improvement. You will develop answers to key questions: What is continuous improvement? How is it performed? What makes it work?

Participants will receive industry recognized NCCER certification upon successful course completion. This course involves active participation and self-study to successfully pass the required module exams. Exams are closed book. The methodology and techniques covered in the course align with Project Management Institute's Standards and can help prepare participants for PMP® Certification.