

Course No. 1544

Construction Planning & Project Management Training Course

CIVIL & STRUCTURAL ENGINEERING
INDUSTRIAL ENGINEERING, MAINTENANCE & OPERATIONS

DURATION

5 Days

DELIVERY

Classroom



Course Overview

The Construction Planning & Project Management Training Course is a comprehensive professional program designed to develop the practical capabilities required to plan, coordinate, execute, monitor, and control construction projects effectively. The course focuses on achieving an appropriate balance between project scope, schedule, cost, quality, resources, risk, and stakeholder requirements. It provides participants with a structured approach to converting project requirements into practical execution plans that can be monitored, measured, and improved throughout the project lifecycle.

The course addresses the core principles of construction planning, beginning with scope definition, work breakdown structures, activity identification, sequencing, duration estimation, and schedule development. Participants examine how to establish realistic construction programs, identify critical activities, allocate resources, and monitor progress against approved plans. Particular attention is given to understanding the relationship between planning decisions and actual site conditions, productivity, resource availability, procurement, and construction constraints.

A major component of the Construction Planning & Project Management Training Course is the effective management of project cost, resources, risks, changes, delays, quality, and contractual interfaces. Participants explore practical approaches for coordinating owners, consultants, contractors, subcontractors, suppliers, engineering teams, and site personnel. The course also addresses the importance of communication, documentation, progress reporting, and structured decision-making in maintaining project control.

The program further develops participants' ability to evaluate project performance using meaningful indicators and reliable project data. It covers schedule monitoring, cost control, productivity measurement, delay analysis, risk assessment, change management, and corrective action planning. Participants learn how to identify deviations from approved project plans, determine their causes, evaluate their potential impact, and establish appropriate recovery or corrective measures.

Through practical exercises, construction case studies, planning workshops, and an integrated final project, participants develop the ability to prepare and manage a complete construction project plan. The course supports organizations in strengthening project governance, improving resource utilization, enhancing coordination between project stakeholders, reducing exposure to delays and cost overruns, and establishing more disciplined approaches to construction project delivery.

Objectives

- Analyze project requirements, objectives, constraints, and deliverables to establish a clearly defined construction project scope during the course.
- Develop a structured work breakdown structure that connects project scope with activities, responsibilities, resources, and deliverables.
- Design an integrated construction schedule that defines activity durations, logical relationships, milestones, and major project control points.
- Evaluate the critical path and identify activities that have a significant influence on overall project duration.
- Apply practical resource planning techniques to allocate labor, equipment, materials, and other resources according to project requirements.
- Assess planned and actual project costs to identify financial deviations and determine appropriate corrective actions.
- Analyze construction project risks and develop practical response strategies to minimize their potential impact on project objectives.
- Implement structured methods for monitoring progress and analyzing schedule delays, productivity issues, and execution deviations.
- Strengthen coordination between owners, consultants, contractors, suppliers, engineering teams, and construction personnel throughout project execution.
- Evaluate the impact of changes, claims, delays, and site issues on project scope, schedule, cost, and resources.
- Develop project performance reports using relevant indicators to support management reviews and timely decision-making.
- Prepare an integrated construction project management plan covering scope, schedule, resources, cost, risks, performance monitoring, and corrective actions by the end of the course.

Who Should Attend

The Construction Planning & Project Management Training Course is designed for construction project managers, project directors, construction managers, engineering managers, project engineers, planning engineers, site engineers, construction engineers, project controls professionals, cost engineers, contract engineers, procurement professionals, and specialists responsible for project planning, monitoring, coordination, and execution. It is particularly relevant to professionals involved in preparing construction schedules, monitoring progress, controlling project

performance, and coordinating site activities.

The program is also suitable for project planning managers, project controls managers, site managers, contract managers, consultants, owner representatives, contractor management teams, project coordinators, and supervisors responsible for construction delivery. Engineering and management professionals who need to understand project schedules, cost performance, resource requirements, risks, delays, and performance indicators can also benefit from the practical management perspective of the course.

The course is relevant to government entities, ministries, municipalities, public sector organizations, construction and engineering companies, infrastructure developers, engineering consultancies, real estate developers, industrial organizations, and oil and gas companies. It is particularly appropriate for organizations managing large, complex, multidisciplinary construction and engineering projects that require effective planning, coordination, monitoring, and project control.

Learning Outcomes

- Explain the fundamental principles of construction planning and project management and apply them across the project lifecycle.
- Define project scope, major deliverables, constraints, and responsibilities and translate them into a structured work breakdown structure.
- Develop a construction schedule that clearly identifies activities, durations, dependencies, milestones, and key control points.
- Identify the critical path and evaluate activities that may directly influence the project completion date.
- Develop practical resource plans covering labor, equipment, materials, and other project requirements.
- Analyze planned versus actual project cost and schedule performance and identify significant deviations.
- Assess construction project risks and establish appropriate monitoring and response measures.
- Analyze the causes and consequences of construction delays and evaluate their impact on critical activities and project completion.
- Apply structured approaches to managing project changes, claims, execution issues, and scope variations.

- Improve coordination and communication between owners, consultants, contractors, suppliers, design teams, and site personnel.
- Prepare professional project progress reports containing performance indicators, deviations, risks, and recommended corrective actions.
- Develop an integrated construction project management plan that combines scope, schedule, cost, resources, risks, and performance control.

Course Outline

DAY 01

Construction Planning Fundamentals and Project Scope Management

- Principles of construction project management and the construction project lifecycle
- Defining project objectives, owner requirements, deliverables, and project constraints
- Establishing project scope and identifying major work packages
- Developing a structured work breakdown structure
- Converting project scope into manageable construction activities
- Identifying activities, milestones, and major project control points
- Establishing logical relationships and sequencing between construction activities
- Estimating activity durations and identifying execution requirements
- Defining roles and responsibilities among project stakeholders
- Principles of developing an integrated construction execution plan

PRACTICAL APPLICATION

Develop a work breakdown structure and preliminary execution plan for a construction project and identify its major activities

DAY 02

Construction Scheduling, Critical Path, and Resource Planning

- Principles of construction scheduling and project programming
- Developing activity relationships and construction sequences

DAY 02 — CONTINUED

- Estimating activity durations and establishing a baseline schedule
- Identifying the critical path and critical activities
- Analyzing activity float and schedule flexibility
- Establishing project milestones and schedule control points
- Planning labor and workforce requirements
- Planning construction equipment and material requirements
- Resource allocation and identification of resource conflicts
- Schedule updating based on actual project progress

PRACTICAL APPLICATION

Develop a construction project schedule, identify the critical path, and determine activities requiring priority monitoring

DAY 03

Cost Management, Performance Monitoring, and Project Control

- Principles of construction cost estimating and cost planning
- Developing project budgets and linking costs to project scope and schedule
- Monitoring planned versus actual project expenditure
- Identifying and analyzing cost deviations
- Construction project performance indicators
- Measuring productivity and monitoring site performance
- Evaluating the relationship between schedule delays, productivity, resources, and cost
- Preparing project progress reports and management dashboards
- Developing corrective and preventive actions for project deviations
- Principles of effective project controls and performance reviews

PRACTICAL APPLICATION

Analyze construction project data, identify schedule and cost deviations, and develop appropriate corrective actions

DAY 04

Risk, Delay, Change, and Stakeholder Management

- Identifying and categorizing risks in construction projects
- Assessing risk probability and potential impact on schedule, cost, quality, and resources
- Developing risk response strategies and monitoring risk actions
- Common causes of construction delays and methods for analyzing them
- Assessing the impact of delays on the schedule and critical path
- Managing changes in project scope, design, materials, and construction requirements
- Principles of managing claims and documenting changes and delays
- Coordination between owners, consultants, contractors, subcontractors, and suppliers
- Project communication, meetings, reporting, and documentation
- Managing stakeholder expectations and resolving project coordination issues

PRACTICAL APPLICATION

Analyze a delayed construction project, identify the causes of delay and changes, assess their impact, and develop a recovery strategy

DAY 05

Integrated Construction Project Management and Performance Improvement

- Integrating project scope, schedule, cost, resources, quality, and risk
- Developing an integrated construction execution and management plan
- Reviewing project performance indicators and supporting management decisions
- Improving construction productivity and resource utilization
- Strengthening coordination between design, procurement, construction, and project controls teams
- Monitoring actual progress and updating project schedules and forecasts
- Developing effective management reports for senior leadership
- Best practices for construction project planning, monitoring, and control
- Establishing continuous improvement processes and capturing project lessons learned
- Strengthening project governance and decision-making throughout project execution

DAY 05 — CONTINUED

FINAL WORKSHOP

Develop an integrated construction project management plan covering scope, schedule, resources, cost, risks, performance indicators, monitoring procedures, and corrective actions

Register or Request More Information

Course page: <https://quest-training.com/courses/construction-planning-project-management-training-course>

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