



*Training Course:
Production, Planning, Scheduling and Control*

*25 July - 5 August 2027
Doha (Qatar)*

Training Course: Production, Planning, Scheduling and Control

Training Course code: PC4008 From: 25 July - 5 August 2027 Venue: Doha (Qatar) - Training Course Fees: 7350 € Euro

Introduction

Late delivery, cost overruns, and budget misalignment have become common challenges in projects worldwide. Many failures result from insufficient application of modern project planning, scheduling, control, and cost-estimating techniques.

This intensive 10-day program equips participants with the knowledge and practical skills to plan, schedule, and control projects effectively while developing accurate cost estimates from conceptual design to final execution. Participants will learn to integrate scope, cost, resources, and schedule management to achieve successful project delivery.

Course Objectives

By the end of this program, participants will be able to:

- Master resource planning, scheduling, and project control techniques.
- Apply time-cost trade-off analysis to optimize project outcomes.
- Identify and mitigate project risks while maintaining project momentum.
- Administer project documentation and reporting efficiently.
- Develop effective performance monitoring and control systems.
- Prepare accurate cost estimates from conceptual to detailed levels.
- Understand contract types and allocate risk appropriately.
- Apply incentive arrangements for optimal project performance.

Target Audience

- Project Managers, Planning Engineers, and Project Engineers
- Cost Estimators and Quantity Surveyors
- Construction Managers and Site Engineers
- Procurement and Contract Professionals
- Senior Project Staff responsible for planning, scheduling, and cost control

Course Outline

Module 1 - Project Scheduling & Contingency Planning Skills Days 1-5

Day 1 - Project Scope Planning and Definition

- Scope Planning and WBS
- Work Packages and Statement of Work SOW
- Scope Execution Plan
- Triple Constraints: Time, Cost, Scope
- Project Quality Issues and Risk Analysis
- Project Deliverables and Resource Requirements

Day 2 - Project Schedule Planning & Critical Path Method

- Precedence Network Diagramming
- Job Logic Relationship Charts
- Critical Path Analysis and Float Calculations
- Lead/Lag Scheduling and Activity Duration Estimation
- Milestone Charts and Gantt Charts
- Production and Resource Allocation

Day 3 - Resource Allocation & Levelling

- Planning and Scheduling Limited Resources
- Resource Allocation Algorithms
- Resource Contention Solutions
- Resource Levelling Techniques
- Scheduling Overtime and Workforce Management

Day 4 - Accelerating the Project Schedule

- Time-Cost-Scope Trade-Off Analysis
- Project Crashing Techniques
- Optimal Acceleration Point and Crash Cost Table
- Network Activity Risk Profiles
- Multiple Critical Paths
- Project Cost Reduction Strategies

Day 5 - Project Contingency Planning & Recurring Work

- Program Evaluation and Review Technique PERT
- Network Risk Profiles and Probability Analysis
- Line of Balance LOB Scheduling
- Velocity Diagrams and Linear Scheduling for Repetitive Work
- Balancing Schedules, Buffers, and Measuring Planned Progress

Module 2 - Project Cost Estimating Skills Days 6-10

Day 6 - Cost Estimating Basics

- Estimating Life Cycle
- Conceptual, Semi-Detailed, and Definitive Estimates
- Lump-Sum, Unit-Price, Cost-Plus, and GMP Contracts
- Quantity Take-Off and Pre-Construction Services
- Risk Analysis and Contingencies

Day 7 - Broad Scope Cost Estimating Techniques

- Adjustments for Time, Location, and Size
- Learning Curve Effects and Unit-Cost Adjustments
- PERT Project Cost Analysis and Probability Assessment
- Standard Deviation and Z-Value Calculations

Day 8 - Budget Estimating Process

- Design Phase Estimates
- Pre-Construction Services Costing
- Preparing Budget Control Logs
- Integration with Procurement and RFP Requirements

Day 9 - Bid Contract Estimating Process

- Lump-Sum Bid Solicitation
- Work Breakdown Structure for Estimating
- Subcontractor and Major Supplier Estimating
- Cost and Price Adjustments
- Accuracy, Error Prevention, and Document Review

Day 10 - Unit Price & Negotiated Contract Estimates

- Unit Price Bid Forms and Direct/Indirect Costs
- Risk Evaluation and Contingency Planning
- Guaranteed Maximum Price GMP and Fee Structures
- Contract Types and Compensation Arrangements
- Target Cost Estimating, Parametric Methods, and Economic Adjustments

Registration form on the Training Course: Production, Planning, Scheduling and Control

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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