

Course Name: Project Monitoring, Reporting and Control

Reference Code: Projec102

About the course:

Countless numbers of projects undertaken by organizations in the private and public sectors significantly overrun the project schedule and budget, and as a consequence fail to achieve the organization's financial and strategic objectives, often with sizable increases in costs and with substantial financial losses to the organization. Course

Objective:

- Integrate scope, time, resources and cost management into a dynamic, manageable plan
- Develop project network diagrams for CPM and advanced PERT calculations to identify schedule and cost risks
- Maintain continuous project performance and delivery control
- accurately estimate and allocate project costs and resources
- Measure, forecast and control project performance by employing earned value techniques
- Compress or accelerate the schedule when required by adverse circumstances
- Develop a project recovery plan for budget and schedule overruns
- Produce clear and concise project progress reports

Who Should attend?.

This course is designed for project team leaders, project planning engineers and heads, and senior project control and business services professionals who have the responsibility for planning and controlling project schedules and costs in client and contracting companies.

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Course Methodology:

This training course is designed to be a hands-on, stimulating experience. The training course is highly interactive with many discussion and practice sessions.

- ☐ Relevant computer simulations and videos .
- ☐ Copies of all presentation material.
- ☐ Variety of Learning Methods.
- ☐ Pre-test and final test.
- ☐ Case Study
- ☐ Training Groups.
- ☐ Presentation.
- ☐ Lectures

Course Outline:

Project Scope Planning and Definition (Fundamentals)

Project Development Life Cycle

Project Conception

Project Formulation

Project Definition

Project Development

Project Execution

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Project Transition
Project Disposal
The Project Process Groups
Scope Definition
Work Breakdown Structure
Work-Packages
Hierarchical WBS
Building the Master WBS
Extreme Engineering Project
Project Cost Estimating

Project Cost Planning
Bid Documents Development
Technical Scope
Work Quantity Survey
Summaries for Bid Items
Project Overhead
Recap Sheet
Unit Price Schedule
Resource Unit and Rates
Cost Budgeting
Project Budget
Project Cost Baseline

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Project Schedule Planning and Critical Path Method

Precedence Network Diagramming

Logic Relationship Chart

Critical Path Analysis

Project Float/Slack Analysis

Lead and Lag Scheduling

Activity Duration Estimation

Milestone Charts

Gantt Chart – Schedule Baseline

Project Estimating Processes

Production and Productivity Planning

Resource and Cost Allocation

Accelerating the Project Schedule

Circumstances Requiring Project Acceleration

Time-Cost-Scope Trade-off

Project Time Reduction

Direct Project Costs

Indirect Project Costs

Options for Accelerating the Schedule

Crashing the Schedule – How?

Pre-Accelerated Schedule

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Developing a Crash Cost Table
Acceleration in Practice
The Optimal Acceleration Point
Gantt Chart for Accelerated Schedule
Network Activity Risk Profiles
Additional Considerations
Multiple Critical Paths
Project Cost Reduction
Project Contingency Planning

Project Contingency Planning
PERT Analysis
Network Risk Profile Types
Program Evaluation and Review Technique (PERT)
Critical Path Diagram
PERT Calculations
Normal Distribution
PERT, Probability and Standard Deviation Formulae
Calculating the Standard Deviation
Standard Deviation for Critical Path: PERT Project Analysis
Z-Values: The Probability of Project Completion at a Required Date
Network Showing PERT Estimates
True Critical Path

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Network Activity Risk Profiles
Calculating the Standard Deviation
Application: Estimating Project Duration
Project Execution Management, Control and Reporting
Progress Tracking and Monitoring
Project Cost Management
Earned Value Control Process
Schedule Variances
Cost Variances
Progress Control Charts – Trend Analysis
Schedule and Cost Variance Forecasting
Labour Management and Cost Control
Materials Management and Cost Control
Earned Value Analysis
Earned Value Reporting
Project Cost Budgeting and Cash Flow Analysis
Cash Flow Estimates
Owner Perspective
Contractor Perspective
Planned Progress Payments Against Bid Price
Planned Working Capital

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Estimated Costs versus Working Capital

Time-Distributed Estimation of Actual Value Earned and Costs

Actual Progress Payments & Working Capital

Planned vs Actual Working Capital

Earned Value Chart

Monthly Contractor Obligations

Project Cash Flow

Estimating Project Borrowing Capacity

Project Borrowing Capacity

Required Cash Revenues

Project Recovery Plan Development

Project Variance Analysis and Quantification

Schedule Performance Index (SPI)

Cost Performance Index (CPI)

Setting Schedule and Cost Control Limits

Project Recovery Data Assessment

Schedule and Cost Recovery Analysis

Schedule and Cost Recovery Plan

Project Recovery Baselines and Controls.

Time: 08:00 AM -03:00 PM **Numbers of hours:** 35 Hours

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