

Project Cost Planning, Estimating and Control

MEDIUM : English

Duration: 2-3 Days

Advanced project cost planning, management and control skills are essential to enable project managers to systematically plan, manage and control costs and expenditures during the various phases of new projects. Failure to do so will result in cost overruns against the approved budget. This, in turn, results in schedule delays and project failure.

These facts necessitate the development of sound, realistic, and carefully structured cash-flow projections, reflecting both the initial capital expenditures required for the acquisition of the asset, as well as the operational expenditures required for successful operation and maintenance of the asset over its anticipated productive life.

The systematic identification and quantification of project risks, as well as the development of detailed risk treatment strategies to mitigate all relevant risks that may threaten the intended outcomes of the project, are therefore essential to the achievement of project success.

This course provides detailed instruction in the methods and techniques of project disaster recovery based on early cost and progress forecasts. These techniques will enable delegates to develop a **project recovery plan** to serve as basis for project completion, as well as to protect the organization in cases of litigation.

Course Objectives

This program will provide delegates with a proven set of critical methods, processes, tools and techniques to:

- DEVELOP a comprehensive spreadsheet model of project cash flow projections and requirements
- PERFORM detailed financial evaluations to improve the decision-making processes relative to potential projects
- USE quantitative methods to assess the exposure of the project to particular financial and cost threats in real and measurable terms
- APPLY a dynamic risk mitigation process to reduce the risk profile to comply with organizational thresholds
- MANAGE and control project expenditures against the approved capital and operational budgets
- MAINTAIN continuous project and cost performance and delivery control by measuring, forecasting and controlling project performance using earned value techniques
- DEVELOP a project recovery plan for budget and schedule overruns to rescue problematic projects from failure
- PRODUCE clear and concise project progress reports

Target Audience

This course is designed for project cost estimators, project planners and schedulers, contracts professionals, project procurement and purchasing staff, and project control and business services professionals who have the responsibility for cost management and control on the company's projects.

Training Approach

Delegates will develop advanced project cost management skills and knowledge through formal and interactive learning methods.

The program includes *individual exercises, team projects, applicable case studies, group discussions and video material that bring to life the skills acquired throughout the course.* The material has been designed to enable delegates to apply all of the material with immediate effect at the office.

New concepts and tools are introduced gradually to enable delegates to progress from the fundamental to the advanced concepts of project risk management.

Course Outline

PART ONE – Financial Assessment and Feasibility Analysis

1. Fundamentals of Financial Evaluation

- Time Value of Money
 - Simple and Compound Interest
 - Appraisal Methods – Discounted Cash Flow Projections
 - Net Present Value Analysis (NPV)
 - Recalculating the Cash Flow Projection Plan
- Practical Exercise: Net Present Value Calculations*

2. Project Risk and Contingency Analysis

- Theoretical Discussion*
- Project Risk Descriptions
 - Risk Identification Processes
 - Risk and Uncertainty
 - Overview of the Risk Management Process
 - Risk Management Model

3. Cost-Benefit Scenario Assessment

- Theoretical Discussion (cont'd)*
- Cost and revenue scenario analysis
 - Minimising cost threats
 - Maximising revenue benefits
 - Cost-benefit profile projections
 - Implementing alternative cost strategies

4. Project Feasibility and Financial Analysis

- Advanced Cost-Revenue Analysis
 - Expected Monetary Value Concepts
 - Cost-Benefit Profile and Expected Monetary Value
 - Cost-Benefit Profile Alternatives Development
- Practical Exercise: Expected Monetary Value Calculations*

5. Scenario Planning and Expected Monetary Value

- Case Study: Financial Assessment and Scenario Planning*
- Scenario Planning
 - Best case scenario
 - Base case scenario
 - Worst case scenario
 - Cost threat mitigation strategies
 - Revenue enhancement strategies

PART TWO – Project Progress and Cost Control

6. Project Progress Management and Cost Control

- Theoretical Discussion*
- Earned Value (EV)
 - Key Earned Value Terminology
 - Combining Schedule and Costs
 - Schedule Variance (SV)
 - Cost Variance (CV)

7. Forecasting Project Progress And Costs

- Schedule Performance Index (SPI)
 - Cost Performance Index (CPI)
 - Estimated Cost at Completion
 - Estimated Duration at Completion
- Practical Exercise: Project Cost and Progress Forecasting*

8. Fast-Tracking and Project Costs

- Conditions for Project Acceleration
 - Time-Cost-Scope Trade-off
 - Project Time Reduction
 - Options for Accelerating the Cost Management
- Practical Exercise: Project Acceleration and Cost Management*

9. Project Disaster Recovery Plan Development

- Theoretical Discussion*
- Project Variance Analysis and Quantification
 - Schedule Performance Index (SPI)
 - Cost Performance Index (CPI)
 - Setting Schedule and Cost Control Limits
 - Project Recovery Data Assessment

10. Recontracting the Project Baseline and Costs

- Schedule and Cost Recovery Analysis
 - Schedule and Cost Recovery Plan
 - Project Recovery Baselines and Controls
- Practical Exercise : Project Cost Recovery Plan*