



## Cost Estimation



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### Introduction:

Cost Estimation presents certain challenges. Costs must be managed without compromising either safety or production. This innovative training course presents the delegates with practical tools and techniques which can easily be applied right now within their company and work. It also introduces delegates to emerging tools and techniques to develop for the future.

This training course will help the delegates to save their employers money without damaging the business. This course will feature practical, engaging, and innovative techniques from different organisations. This online training course will also help the delegates to identify and deliver savings without damaging performance, capability, strategy, delivery, or safety.

### Targeted Groups:

- Finance Managers
- Budget Holders
- Project Managers
- Professional Engineers
- People providing direct support to the above

### Course Objectives:

At the end of this course the participants will be able to:

- Proactively manage costs
- Seek opportunities for cost reduction
- Effectively control costs
- Make better use of cost budgets, plans and forecasts
- Understand project appraisal
- Control costs with projects

### Course Content:

#### Unit 1: Cost, Profit, Risk and Cash:

- Costs and Profit
  - Objectives - Mission & Vision - Profit Now vs. Profit Later
  - Strategy and How It Guides Cost Management Decisions / Strategy Models and Costs Management
  - Cost vs. Value / Value Focused Approaches Profit Drivers
- Costs and Cash

- Cash vs. Profit
- Cost - Cash and Non-cash
- Costs Management vs. Cash Management / Capital vs. Revenue Managing Capital Cost / Managing Revenue Cost
- Cost and Risk
  - Introduction to Risk
  - Cost and Risk

## **Unit 2: Costs & Costing:**

- Understanding and Working with Costs
- Cost vs. Value
- Value Based Cost Management / Thinking
- Plan for Cost Reduction and Profit Improvement
- Fixed and Variable Costs Income Statement
- Break-even Analysis / Contribution Margin
- Costing Approaches - Full Absorption, Marginal, ABC
- New Ideas in Cost Management - Lean Principles / ABC - Big data

## **Unit 3: Planning and Forecasting Costs / Risk:**

- OPEX Planning Approaches
- Forecasting Tools and Techniques
- What is Risk?
- Modelling Costs and Profit and Risk
- OPEX Long-term Forecast
- OPEX Planning and Performance Monitoring
- Software Used in OPEX Planning and Performance

## **Unit 4: Investment Appraisal and Projects - Capital Budgeting:**

- Building Cashflow Models for Decision Making
- CAPEX Planning System
- Factors Used to Evaluate the Efficiency of CAPEX Projects, Annual Investment Program
- Applying Time-adjusted Measures - The Time Value of Money
- Net Present Value NPV and Internal Rate of Return IRR / EVA and NPV
- Sensitivity Analysis, Scenario Analysis, Simulation, and NPV Break-even / Monte Carlo Analysis
- The Importance of Flexibility and Options
- Dealing with Risk and Changing Circumstances

## **Unit 5: Why Cost Estimating**

- Estimating in a World of Limited Resources
- Increased Productivity as a Solution
- Productivity and the Profit Motive
- At Stake, the Organization's Reputation
- In-Depth Cost Estimating
- Possible: A Standardized Basic Estimating Procedure

## **Unit 6: The Basics of Estimating**

- Four Kinds of Work Output
- Cost Estimating Defined
- "Cost" and "Price" Explained
- The Estimating Process: Ingredients and Tools Required
- The Cost Estimator: The Human Element
- The Anatomy of an Estimate
- Discussion of Types of Costs
- Collecting the Ingredients of the Estimate

## **Unit 7: Defining The Work**

- The First Questions to Ask and Why
- The Estimate Skeleton: The Work Breakdown Structure
- The Hierarchical Relationship of a Work Breakdown Structure
- Functional Elements
- Physical Elements
- Treatment of Recurring and Nonrecurring Activities
- Work Breakdown Structure Interrationships
- Defining the Estimate Ingredients
- Building in Cost-Effectiveness

## **Unit 8: The Tools Required For Estimating**

- Four Basic Tools
- Information to Be Collected Before Starting an Estimate
- Methods Used in the Estimating Process
- The Technology Improvemen Function
- Establishing an Estimate Schedule
- Needed Estimating Skills

## **Unit 9: Budgets and Cost Control:**

- The Budgeting Process
- The Role of Budgeting
- Annual Budgeting Process
- Identifying and Resolving Budgeting Variances
- Different Budgeting Systems in Use Today
- Budgeting Tips and Techniques
- Variance Analysis
- Beyond Budgeting