



Project Cost Estimation Training Course: for Project Managers

3 – 7 October 2027
Johannesburg

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Ref: 3599_2628 **Date:** 3 – 7 October 2027 **Location:** Johannesburg **Fees:** 4500 Euro

Course Overview:

The course is a pivotal training designed to sharpen the cost estimation skills of engineering project managers. This course delves into various cost estimation techniques, methodologies, and best practices essential for executing projects within budget constraints. Participants will learn to accurately estimate costs related to labour, materials, equipment, and overhead, enabling informed decision-making and effective resource allocation. This program combines theoretical concepts with practical applications, ensuring a complete understanding of cost estimation in engineering projects.

Target Audience:

- Engineering Project Managers
- Project Engineers
- Cost Estimators

Targeted Organizational Departments:

- Engineering Project Management Directorate
- Project Management Office PMO
- Engineering Department
- Construction Department
- Procurement Department
- Finance Department
- Cost Control Department
- Estimation Department
- Planning Department
- Operations Department

Targeted Industries:

- Oil and Gas Sectors
- Construction Industry
- Renewable Energy Sector
- Manufacturing Industry
- Infrastructure Development Sector
- Power Generation and Distribution Sector
- Chemical and Petrochemical Industry
- Mining and Minerals Sector

Course Offerings:

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

- Understand the importance of cost estimation in engineering project management.
- Apply various cost estimation techniques and methodologies effectively.
- Estimate labour, material, equipment, and overhead costs accurately.
- Account for contingencies and manage project risks.
- Develop complete cost estimation plans and baselines.
- Monitor, control, and report project costs.
- Make informed decisions based on reliable cost estimates.
- Communicate cost estimation results to stakeholders effectively.

Training Methodology:

This course employs a blend of theoretical and practical training methodologies. Participants will engage in interactive discussions, case studies, real-world examples, and hands-on exercises to solidify their understanding of cost estimation. The course emphasizes active learning through group work and feedback sessions, ensuring participants can apply what they learn in their professional environments.

Course Toolbox:

- Complete notes and handouts
- Real-life case studies and examples
- Cost estimation templates
- Recommended reading materials and resources

Course Agenda:

Day 1: Introduction to Cost Estimation

- **Topic 1:** Importance of Cost Estimation in Engineering Project Management
- **Topic 2:** Key Principles and Concepts of Cost Estimation
- **Topic 3:** Understanding the Project Life Cycle and Its Impact on Cost Estimation
- **Topic 4:** Overview of Cost Estimation Techniques and Methodologies
- **Topic 5:** Project Cost Management Overview
- **Topic 6:** Introduction to Cost Estimation Software Tools
- **Reflection & Review:** Discuss the day's learnings and review key points

Day 2: Elements and Methods of Cost Estimation

- **Topic 1:** Identifying and Categorizing Project Costs
- **Topic 2:** Direct Costs vs. Indirect Costs
- **Topic 3:** Understanding Fixed Costs, Variable Costs, and Semi-Variable Costs
- **Topic 4:** Factoring in Contingency and Risk Assessment
- **Topic 5:** Top-Down vs. Bottom-Up Cost Estimation Approaches
- **Topic 6:** Analogous Estimating and Parametric Estimating
- **Reflection & Review:** Discuss the day's learnings and review key points

Day 3: Estimating Labor, Material, and Equipment Costs

- **Topic 1:** Resource Allocation and Labor Requirements
- **Topic 2:** Determining Labor Rates and Productivity Factors
- **Topic 3:** Identifying and Quantifying Material Requirements
- **Topic 4:** Sourcing and Pricing Materials
- **Topic 5:** Analyzing Equipment Costs and Rental Considerations
- **Topic 6:** Factoring in Inflation and Market Trends
- **Reflection & Review:** Discuss the day's learnings and review key points



Day 4: Advanced Estimation Techniques and Overhead Costs

- **Topic 1:** Three-Point Estimation
- **Topic 2:** Utilizing Software Tools for Cost Estimation
- **Topic 3:** Understanding Overhead Costs in Engineering Projects
- **Topic 4:** Allocating Overhead Costs to Specific Activities
- **Topic 5:** Estimating Indirect Labor Costs
- **Topic 6:** Including Indirect Material and Equipment Costs
- **Reflection & Review:** Discuss the day's learnings and review key points

Day 5: Cost Estimation Documentation, Reporting, and Control

- **Topic 1:** Creating a Cost Estimation Plan
- **Topic 2:** Developing a Cost Estimation Baseline
- **Topic 3:** Monitoring and Controlling Project Costs
- **Topic 4:** Presenting Cost Estimation Reports to Stakeholders
- **Topic 5:** Making Informed Decisions Based on Cost Estimates
- **Topic 6:** Final Review and Best Practices in Cost Estimation
- **Reflection & Review:** Summarize the course learnings and review key points

How This Course is Different from Other Cost Estimation Courses:

The course stands out by offering a highly practical and hands-on approach to cost estimation. Unlike other courses, this program integrates real-life case studies, and industry-specific examples to provide a complete training experience. Participants benefit from interactive discussions and group activities that foster a deeper understanding of cost estimation processes. The course is tailored specifically for engineering project managers, ensuring relevance and applicability in their professional roles. By the end of the course, attendees will possess the skills and confidence to execute cost estimation tasks effectively, making it a standout choice for professionals seeking to enhance their project management capabilities.