Value Engineering & Cost Estimating: Optimize Project Value

25 – 29 April 2027
Dubai (UAE)



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Why This Course

In today's competitive and cost-conscious environment, organizations must balance quality, functionality, and budget to achieve optimal project outcomes. Value engineering and cost estimating are critical disciplines that empower professionals to enhance value, minimize waste, and make data-driven decisions across the project lifecycle.

The Advanced Value Engineering and Cost Estimating Program is a comprehensive 1-week training designed for engineers, project managers, estimators, and decision-makers involved in project planning and execution. This course provides both theoretical grounding and hands-on application, equipping participants with advanced techniques to improve cost efficiency, optimize value, and ensure successful project delivery.

What You'll Learn and Practice

By completing this program, participants will be able to:

- Apply the core principles and methodologies of value engineering VE effectively.
- Develop accurate and defensible cost estimates for projects of varying scale and complexity.
- Implement life-cycle costing to enhance project value and sustainability.
- Conduct risk analysis and apply mitigation strategies within cost estimation.
- Integrate VE and cost estimating to achieve measurable performance improvements.
- Strengthen decision-making capabilities for project selection, prioritization, and optimization.

Program Flow

Day 1: Foundations of Value Engineering and Cost Estimating

- Introduction to the principles and objectives of value engineering.
- Fundamentals of cost estimating and its role in project success.
- Understanding the project lifecycle and value optimization opportunities.
- Overview of the Value Engineering Job Plan and its stages.
- Workshop: Identifying value opportunities within a sample project.



Day 2: Advanced Cost Estimating Techniques and Tools

- Types and classifications of cost estimates.
- Estimating methodologies: conceptual, detailed, and parametric.
- Building cost models and benchmarking practices.
- Utilizing software tools for cost estimation and analysis.
- Exercise: Developing a parametric cost model using sample project data.

Day 3: Applying Value Engineering Methodologies

- Conducting function analysis and developing FAST diagrams.
- Using creative techniques for idea generation and improvement.
- Evaluating and selecting alternative design or process solutions.
- Implementing and monitoring approved VE recommendations.
- Workshop: Conducting a mini value study and presenting improvement ideas.

Day 4: Life-Cycle Costing and Risk Analysis

- Applying life-cycle cost analysis to assess total project value.
- Performing present value and discounted cash flow analyses.
- Identifying and assessing cost-related risks throughout the project.
- Planning contingencies and mitigation strategies.
- Case Study: Comparing project alternatives using LCC and risk-based analysis.

Day 5: Integration of Value Engineering and Cost Estimating

- Incorporating VE throughout project planning and design phases.
- Conducting cost-benefit analysis for VE proposals.
- Preparing and presenting VE reports and recommendations.
- Reviewing real-world applications and lessons learned from successful VE projects.
- Simulation: Delivering a VE presentation and defending cost-saving proposals.

Individual Impact

- Gain the ability to lead and facilitate value engineering workshops effectively.
- Improve precision and reliability in project cost estimation.
- Build confidence in applying VE to achieve measurable cost savings.
- Enhance analytical and strategic decision-making skills.

Organizational Impact

- Achieve greater cost efficiency and value optimization across projects.
- Strengthen project planning, budgeting, and performance management processes.
- Foster a culture of innovation and continuous improvement.
- Improve ROI and long-term sustainability of capital investments.



Training Methodology

This program combines technical rigor with interactive learning through:

- Hands-on exercises in cost analysis and VE studies.
- Case studies from real engineering and infrastructure projects.
- Group discussions, simulations, and brainstorming sessions.
- Expert-led instruction supported by practical industry insights.

Beyond the Course

Upon completion, participants will return equipped to lead value-focused project initiatives that drive measurable results. They will possess the analytical frameworks, tools, and confidence to deliver projects that meet performance goals while optimizing cost and maximizing long-term value.

