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Value Engineering Skills: Planning for Performance Excellence - III

2 - 6 June 2025

Boston (USA)

Value Engineering Skills: Planning for Performance Excellence - III

course code: P4017 From: 2 - 6 June 2025 Venue: Boston (USA) - course Fees: 5500 Euro

The Course

Value, in its broadest sense, is the benefit to the client, offered by a project. Value Engineering (VE) is a creative, organized approach with the objective of offering project stakeholders an opportunity to optimize project value, reduce life-cycle costs, address financial issues, and eliminate unnecessary costs. The VE methodology emphasizes the return-on-investment aspect of decision-making in terms of lifecycle costs during project planning, procurement and execution. It can be used to identify alternative ideas and solutions at any project phase to produce the client's best value requirements. VE, however, is not about selecting the cheapest option; rather, it is about realizing best value for money.

This course is designed to provide the participants with expert guidance for securing real benefits and cost savings by implementing VE in their projects with a greater emphasis is on the development of project scope, charter, cost estimates, plans and budget. Within the project management context, the course significantly enhances creative thinking, problem solving, objective assessment, and informed decision making skills. This course is designed to provide the participants with expert guidance for securing real benefits and cost savings by implementing VE in their projects with a greater emphasis is on the development of project scope, charter, cost estimates, plans and budget. Within the project management context, the course significantly enhances creative thinking, problem solving, objective assessment, and informed decision making skills.

The course adopts a systematic step-by-step methodology to support the initiation, planning and application of VE techniques. It covers key elements in the VE application including: forming and managing an integrated multi-disciplinary project team to generate solutions and recommend alternatives; capturing stakeholders requirements and expectations; developing conceptual cost estimates and models; undertaking life-cycle costing analysis; and producing a high-level project plan to guide project execution and control. Practical applications are covered in detail, along with presentations of case studies designed to help participants master the course materials.

The Goals

Following the completion of this course, delegates will:

- Understand the fundamental concepts of Value Engineering and Analysis
- Understand how value engineering supports effective project management by providing a continuousthread of good practice throughout the project development process
- Appreciate the level and nature of the information needed to develop a project scope
- Gather and organize information and cost relevant to key elements of the project
- Learn how to capture and incorporate stakeholders' input in the development of the project charter and plan.
- Critically assess and evaluate the relationships among key attributes such as cost, value and function
- Report effectively to top management and project stakeholders in the context of proposing alternatives that improve the overall project value
- Demonstrate proficiency in applying life-cycle costing principles
- Objectively present a convincing case in support of certain project alternatives.

The Process

The course is a mixture of speaker input, case studies and practice exercises which will be used to facilitate group discussion. Delegates will gain detailed knowledge of VE concepts and techniques by active participation in the exercise/training sessions. Through lectures, case studies and practical exercises, delegates will focus on key concepts, terms, and principles necessary for realistically optimizing project costs.

The Benefits

Organizations will be better prepared in relation to how:

- To manage the cost of their projects according to best practices.
- To have a consistent and streamlined project cost management process.
- To form and instill common understanding among multi-disciplinary teams.
- To focus the efforts on the purposes behind the project.
- To adopt and apply a structured approach, tested and successful procedures that are directed toward achieving success in meeting the purposes for the "project" by all involved.

The Results

Delegates attending this course will be able to:

- Compare the costs of alternatives to ensure the most economical project at the desired level of quality
- Keep accurate control of the progressive budgeting process based on the various stages of design
- Manage the interface between many value-adding project phases and management expectations
- Apply systematic and innovative methodology with multi-disciplinary approach to achieve better value and cost optimization for projects.
- Spread cost-consciousness among project team members
- Focus on function and thereby develops creative thinking towards project cost reduction

The Core Competencies

Delegates attending this course will enhance their competencies in the following areas:

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- Developing appreciation of how to frame project decisions and to develop decision hierarchies
- Bringing Value Engineering into the organization’s project initiation and planning processes
- Evaluating alternatives based on their cost and true value throughout the project life-cycle.
- Identifying major roadblocks to thinking creatively about project challenges, and ways to mitigate them
- Evaluating the results of a brainstorming session to develop the best value-adding scenario for the project.
- Adhering to a structured sequence of logical steps to solve project challenges
- Eliminating unnecessary costs without compromising project quality.

The Programme Content

Day One

Framework for Applying Value Engineering in Projects

- What is Value Engineering? Why is it important?
- Defining Value Engineering concepts and principles
- Purpose of Value Engineering and Value Analysis
- Strengths and Weaknesses of Value Engineering
- How and When is Value Engineering applied?
- Project definition and initiation
- Project scope and charter development
- Life-cycle costing techniques
- Project stakeholders analysis and management
- Identifying relationships between Value, Cost and Worth
- Initiating Value Engineering Process
- Overview of Different Value Engineering Phases
- The Information Phase – steps and procedures
- Developing Value Engineering Job Plan

Day Two

The Function Analysis Phase - Expressing Project Functional Needs and Constraints

- The need for Function Analysis in projects
- Defining project constraints – relationships and tradeoffs
- Conceptual project cost estimating techniques
- Function-Cost-Worth Analysis
- Developing FAST Diagrams to identify critical project components
- The Technical FAST Model to perform project value analysis
- Case Study
- Cross-Functional Project Team Approach

Day Three

The Creative Phase - Inspiring Creativity in Your Project Team

- Creativity and Creative thinking within the project environment
- Individual vs. Group thinking to improve the quality of project decisions
- Creativity techniques as applied to optimize project value
- Blocks to creativity within the project team
- Brainstorm project solutions
- Reaching consensus and leveraging the power of project team collaboration
- Project risk perception and identification
- Project prioritization process using the Delphi technique
- The use of Force-field analysis in project problem solving
- Output of the Creative Phase

Day Four

The Evaluation Phase -Making Informed Project Decisions

- Project ideas screening
- Project evaluation methods
- Quantitative evaluation using objective data
- Subjective evaluation – project-related criteria weighting
- Revisiting project life-cycle costing analysis

- Incorporating inflation in project economic analysis
- Performing project risk and scenario analyses
- Risk Life-cycle simulation modelling - best and worst project cost scenarios
- Pitfalls associated with the use of existing economic models
- Incremental benefit-cost analysis for project evaluation
- Effective Decision-making in project environment
- Output of the Evaluation Phase

Day Five

The Planning and Reporting Phases -Getting Results through Effective Communication

- Develop and assess VE proposals to optimize project value
- Develop action plans and assign project roles and responsibilities
- Reporting VE findings to Senior Management and project stakeholders
- Mastering oral presentation techniques & interpersonal skills
- Strategies for project plan execution
- Incorporating VE into the early project phases
- Integrating VE with Continuous Improvement Techniques
- Wrap-up