

# € TRAINING

Value Engineering Skills



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## Introduction:

Value, in its broadest sense, is the benefit to the client, offered by a project. Value Engineering VE is a creative, organized approach that enables providers of a product, service, or project to engage in a proactive way with stakeholders to ensure that project value is optimized, life-cycle costs are reduced, and unnecessary costs eliminated. The VE methodology emphasizes the return-on-investment aspect of decision-making in terms of benefits management during project planning, procurement, and execution. It enables design teams and organizations to identify and evaluate alternative ideas and solutions at any project phase avoiding wasted design and investment effort and deliver the best value solutions that meet client requirements. VE is not about selecting the cheapest option; rather, it is about realizing the best value for money and improving productivity, competitiveness, and effectiveness of organizations in addition to stimulating innovation.

This lively and interactive training 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 on the development of project scope, cost estimates, design solutions, and budgets. Within the project management context, the course significantly enhances creative thinking, problem-solving, objective assessment, and informed decision-making skills.

## Course Objectives:

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

- Understand the fundamental concepts of value engineering and how it supports effective project management by providing a continuous thread of good practice throughout the project development process
- 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; and
- Objectively present a convincing case in support of certain project alternatives

## Targeted Audience:

- Anyone involved in project initiation, engineering design, and critical assessment of projects
- All those responsible for making significant decisions concerning plans and budgets for large and complex projects
- Project or Program Sponsors, Project Managers, Cost Estimators, Cost Controllers, Engineers, Designers, and Project Staff
- All those aspiring to deliver better value in all sectors of the economy from major projects in construction, manufacturing, petrochemical, healthcare, education legal and public services

## Course Outlines:

### Unit 1: Framework for Applying Value Engineering in Projects:

- What is Value?
- What is Value Engineering? Why is it important?
- Defining Value Engineering concepts and principles
- How and when is Value Engineering applied?
- Project stakeholders analysis and management
- Understanding teamwork and cross-functional Project Teams and team player styles

## Unit 2: The Function Analysis Phase - Expressing Project Functional Needs and Constraints:

- Overview of Different Value Engineering Phases / Job Plan
- The Information Phase - steps and procedures
- The need for Function Analysis in projects
- Developing FAST Diagrams to identify critical project components and perform project value analysis
- Defining project constraints - relationships and trade-offs
- Aspects of Cost Estimating

## Unit 3: The Creative Phase - Inspiring Creativity in Your Project Team:

- Risk Management
- Relationships between Value, Cost, and Worth
- Facilitation skills
- Creativity and Creative thinking within the project environment
- Creativity techniques as applied to optimize project value
- Blocks to creativity within the project team

## Unit 4: The Evaluation Phase - Making Informed Project Decisions:

- Reaching consensus and leveraging the power of project team collaboration
- Idea selection
- Evaluation methods and value criteria
- Development phase
- Techniques in problem-solving
- Life-cycle costing analysis

## Unit 5: The Planning and Reporting Phases - Getting Results through Effective Communication:

- Effective Decision-making in a project environment
- Develop action plans and assign project roles and responsibilities
- Reporting VE findings to Senior Management and project stakeholders
- Integrating VE into the project process and Continuous Improvement and application at project initiation
- Case studies
- Assessment and Wrap-up