

# Basic Project Management Techniques

1 Day

## Description

In this program, participants learn to differentiate between product management and project management and fit projects to organizational culture and environment. Participants also learn to manage scope and time, control project schedules, and manage project costs.

## Prerequisites

- None

## Objectives

Upon successful completion of this program, participants will be able to:

- ✓ Describe the characteristics of projects and the project management process.
- ✓ Identify environmental influences on projects, fit projects to organizational structure, and identify key project team roles.
- ✓ Define the project scope, manage scope creep, create a work breakdown structure, and implement scope change control.
- ✓ Identify activities and dependencies, use diagrams, estimate activity duration, and use mathematical analysis to manage time.
- ✓ Load and level resources, identify the critical path, and calculate variance.
- ✓ Identify and assign resources.
- ✓ Approximate costs and use cost-estimating techniques.
- ✓ Create a project budget, control project costs, analyze variance, and calculate variance at completion.

### Fundamentals of Project Management

The Nature of Projects  
 Project Basics  
 Project Management  
 Project Management Process  
 Steps and Variables in a Project Management Process  
 Common Pitfalls when Managing Projects

### Characteristics of a Project

Project Environment  
 Internal and External Environment  
 Project Stakeholders and Influence  
 Socioeconomic Issues  
 Organizational Issues  
 Organizational Structures  
 Functional Project Organizational Structure  
 Project-Driven Organizational Structure  
 Matrix Organizational Structure  
 Project Manager

### Critical Functions

Project Management Skills  
 Project Management Responsibilities  
 Project Management Challenges

### The Project Team

Core Team Members  
 Skills Inventories  
 Consultants and Vendors  
 Characteristics of Effective Team Members  
 Difficulties and Logistics  
 Team Building  
 Mission Critical Team Members  
 Project Offices

### Project Initiation and Scope Planning

Project Initiation  
 Initiating a Project  
 Authorizing Projects  
 Project Selection Methods  
 Project Deliverables  
 Project Charters

**Project Constraints and Assumptions**

- Scope Planning
  - Steps to Take
  - Creating a Scope Statement
  - Scope Creep

**Scope Definition, Verification, and Change Control**

- Scope Definition
  - Decomposition of a Project
  - Work Breakdown Structures
  - Designing a WBS
  - Work Packages
  - Creating a WBS
- Scope Verification
  - Scope Verification Requirements
  - Timing of Scope Verification
- Scope Change Control
  - Determining Benefit to Project
  - Scope Change Control Systems
  - Database of Lessons Learned

**Time Management**

- Activity Definition and Sequencing
  - Basics of Definition and Sequencing
  - Tasks, Activities, and Events
  - Activity Relationships
  - Activity Dependencies
  - Effect of Milestones on Activity Sequencing
  - Diagramming Techniques
    - The Precedence Diagramming Method
    - The Arrow Diagramming Method
    - The Graphical Evaluation and Review Technique
- Activity Duration
  - Factors Affecting Activity Duration
  - Activity Duration and Work Effort
  - Estimation Techniques

**Schedule Development and Control**

- Schedule Development
  - Risk Management and Schedule Development
  - Network Diagrams and Schedule Development

**Schedule Development Techniques**

- CPM Terms and Calculations
- CPM Scheduling
- Comparing CPM, PERT, and GERT
- Duration Compression Methods
- Presenting Project Schedules

**Schedule Control**

- Resource Loading
- Resource Allocation
- Schedule Adherence
- Schedule Updates
- Schedule Variance

**Resource Identification and Cost Approximating**

**Resource Identification**

- Basics of Identification and Planning
- Resource Identification Tools
- Types of Resources
- Assigning Resources

**Cost Approximating**

- The WBS and Cost Approximation
- Life-Cycle Costing
- Effect of Risks on Cost Estimates
- Effect of Activity Duration on Cost Estimates
- Cost Budgeting Techniques
- Cost Estimate Completion
- Project Estimating Pitfalls
- Cost Estimating Problems

**Budgeting and Cost Control**

**Cost Budgeting**

- Refining a Project Budget
- Value Engineering
- S-Curves
- Budget Standards
- Cost Management Plans
- Capital Budgeting
- Methods of Calculating Depreciation

**Cost Control**

- Guidelines for Controlling Costs
- Variance Analysis
- Variance Calculation
- 50/50 Rule of Progress Reporting
- Performance Index Calculation
- Completion Calculations