Project Planning & Estimating

Description 2 Days

The Project Planning & Estimating class offers training in the fundamentals of project management, scoping a project, risk assessment, project work breakdown structure, resource planning and estimating. The participants will learn the concepts and best practices for planning and estimating for their project initiatives. The seminar focus is on:

- How to identify the scope and perform solutions alternative analysis
- Performing risk assessment
- How to create a work breakdown structure and create a project estimate
- Provide participants with real world experience in creating effective work breakdown structures, project resource planning and estimating
- Each seminar participant receives a Seminar Handbook with sample templates, guidelines and a solution set.

Objectives

The objectives of the seminar are to:

- Understand the fundamentals of project planning and the project life cycle
- Learn how to define the project scope and how to identify project risks
- How to perform risk assessment
- Create an effective project plan and build project estimates
- Provide practical exercises in scoping, risk assessment, project planning and estimating

Seminar Content

Day 1 am

CLASS INTRODUCTION

- Introductions and Class Objectives
- Review Class Agenda

OVERVIEW OF PROJECT PLANNING & THE PROJECT LIFE CYCLE

- IT Project Successes and Failures
- Project Management Basics
- Project Management Life Cycle
- Project Management Knowledge Areas
- Triple Constraints of Project Management
- Project Organization
- **Exercise- Identify a failed or successful project. Brainstorm a list of the root causes for the project failure or success.**
- What is a project life cycle?
- Project Life Cycle Phases
    - Phase Goals
    - Phase Deliverables

- Software Development Methodology
- **Exercise- Define the phases and deliverables for your project life cycle.**

PROJECT DEFINITION- Problem Statement/Scope of the Project/Risk Assessment
PROBLEM STATEMENT

- Writing Effective Project Initiation Deliverables:
  - Business Problem Statement
  - Success Criteria/Objectives
  - Project Constraints & Assumptions
  - Review the Context Diagram
  - Solution Alternatives Analysis
- **Exercise- Discovering and writing business problem statements, success criteria/objectives and solution alternative analysis**

DEFINING THE SCOPE OF THE PROJECT

  - What Is In and Out Of Scope?
  - Create the Use Case Diagram
  - Create the Use Case Inventory
- **Exercise- Building the use case diagram and use case inventory**

PROJECT RISK ASSESSMENT

- Essential for Project Risk Management
- Techniques for Conducting Risk Assessment Meetings
- How to Document and Weight the Project Risks
- Risk Response Planning and Strategies
- **Exercise- Perform a risk assessment meeting on a project and create a risk assessment matrix with the strategies**
- Risk monitoring and control process
- Tools and techniques for controlling risk

Day 1 pm

CREATING THE WORK BREAKDOWN STRUCTURE

- What is Work Breakdown Structure (WBS)
- WBS prerequisites
- Determine the type of structure
  - Project phase structure
  - Project deliverable structure
- Identify and Decompose the Work Packages
- Define the WBS Dictionary
  - Identify and Group Project Tasks
  - Estimating Staff (Determine Resource Requirements)
  - Estimate Task Duration
  - Determine Quality Requirements
- WBS Baseline
- **Exercise- Create a Work Breakdown Structure and a WBS Dictionary Entry for a Work Package identified in the WBS.**

CREATING THE PROJECT PLAN

- What is a Project Pan and Key Components?
- Tasks and Resources
- What is the Project Team? Roles/Responsibilities
- What is a Project Schedule?
- Network Diagram
- Critical Path Diagram
- How to create the project plan?
    - Identify the Project Activities and Tasks
    - Create and Decompose the WBS
    - Sequence Work Activities
    - Assign Resources
    - Resource Planning
    - Estimate Work Effort and Duration
    - Build the Schedule
    - Determine the Critical Path
    - View Network Diagram
- **Exercise- Create a Project Plan**

Day 2 am

BUILD THE DETAILED PROJECT ESTIMATES

- Calculate the Project Estimates
    - Resource Costs
    - Time Estimates
    - Facility Costs
    - Infrastructure Costs
    - Software Costs
- Estimating steps
    - Sizing - Order of Magnitude (OMM), Sizing Model Example
    - Effort of Hours and Staffing
    - Duration
    - Plan contingency
- **Exercise- Create Project Estimates**

CONTROLLING AND MANAGING CHANGE

- Change Control Process
- Change Control Tools
- **Exercise- Define how to handle requested changes and emergencies. Create a flow diagram of the change management flow.**

PHASE AND PROJECT CLOSURE

- Contract Close Out
- Administration Close Out
- Change Control Log
- Final Project Reporting
    - Summary
    - Results
    - Success Criteria Assessment

- Conducting a Lessons Learned Session
- Project Team Assessment & Evaluations
- Action Items
- Sign-off and Acceptance

Day 2 pm

SIMULATION- CASE STUDY FOR PROJECT PLANNING & ESTIMATING EXERCISE

Group work is provided for participants to practice creating a Work Breakdown Structure (WBS) using collaborative methods and transforming the Work Breakdown Structure (WBS) into a project plan and estimate.

- Create the problem statement, objectives, solution alternatives, scope creating the use case diagram and use case inventory
- Identify the risks and create the risk assessment matrix
- Develop the work breakdown structure
- Create the project plan
- Create the project estimates
- Present critique results to class for evaluation

SUMMARY/RECAP

- How will you use the techniques learned on your project?
- Evaluations

Materials

Each seminar participant receives a Seminar Handbook with templates, guidelines and solution set.

Who Should Attend?

Those who will find this of value are the Business Analysts, Requirements Analysts, Project Managers, Technical Leads, Quality Assurance, Subject Matter Experts (SMEs), Architects, and Developers. A maximum of 12 students is suggested.