

SCHEDULING AND COST CONTROL FOR FEDERAL GOVERNMENT PROJECTS (FPM 113)

SYNOPSIS

Scheduling and Cost Control for Federal Government Projects provides participants with the information to estimate cost and time input to generate a WBS and then monitor projects using earned value management. This course reviews best practices to meet the requirements of OMB A-94 and A-11 and addresses the entry-level business, cost, and financial management competencies and performance outcomes, as defined by the FAC-P/PM policy and competency model. Calculation of schedules, using the PERT technique, and interpretation of data from a time-phased distribution of project costs will also be reviewed. By the end of the course, participants will be ready to apply the concept of total lifecycle systems management to their projects. Finally, participants will reinforce the knowledge gained in this course and apply their skills to a series of exercises and case studies.

LEARN

- Identify what is needed to create a WBS to identify and assign resources, predict cost, and generate time estimates
- Calculate schedules using PERT and analyze projects with earned value management techniques
- Demonstrate knowledge of OMB A-94 and OMB A-11 application
- Demonstrate the ability to oversee the application of total lifecycle systems management

This course uses digital materials.

TOPICS

PROJECT DEFINITION

- What is Scheduling and Cost Control?
- Why Control Schedule and Cost?
- Phases of the Project Lifecycle
- The World-Record House: Planning in Action
- The Right Start
- Requirements Review
- Scheduling and Cost Control Documentation
- Organizing the Work Breakdown Structure (WBS)
- WBS Review
- WBS Model (Graphical)

RESOURCE ALLOCATION AND ESTIMATING

- Resource Planning Roles and Responsibilities
- Resources as Estimating Sources
- Estimating Durations
- Duration Considerations
- Productivity and Availability in Resource
- Driven Estimates
- What is the Cost of Each Resource?
- Definitions
- Estimates
- Estimating Recommendations
- Estimating Tools and Techniques
- Analogous Estimates
- Parametric Estimating
- Vendor Bids
- Bottom-Up Method: Detailed Estimates
- Cost Categories and Types of Costs
- Program Evaluation and Review Technique (PERT)
- Standard Deviation (SD) in Pert Estimates
- SD for a Path Using Pert
- How to Review an Estimate
- Estimating Caveats

SCHEDULING

- Inputs to Define Activities
- WBS and Network Scheduling
- Validating the Time Frame
- Considering Risk in Schedule Estimates
- Network Diagram
- Network Diagram Rules of Thumb
- Precedence Diagramming Method (PDM)
- The Basic FS Relationship
- Building a Precedence Diagram
- Scheduling Sample
- Basic PDM Sample
- Basic Scheduling
- Calculating the Forward Pass (FS Relationships)
- Forward Pass
- Calculating the Backward Pass
- Backward Pass
- Total Float
- Free Float
- Critical Path

- Lag and Lead Times
- Additional PDM Relationships
- SS Relationships in PDM
- FF Relationships in PDM

PROJECT BASELINES

- The Basic of Baselines
- Baselines
- Baseline Costs Plus Reserve
- Cost Baseline: Cumulative Cost Curve
- Review the Baseline
- Integrated Baseline Review (IBR)
- Evaluating the Baseline
- Effect of Changes on PMB
- Baseline Maintenance
- The Project Management Plan

EVALUATION AND FORECASTING

- Evaluation
- Control Considerations
- Schedule and Cost Control
- Performance Control Charts
- What is Earned Value Management (EVM)?
- Key EVM Terminology
- One Type of Detailed Audit
- Integrated Cost/Schedule Status
- Key EVM Data
- Schedule and Cost Variances
- Schedule and Cost Performance Indexes
- Interpreting EVM Calculations
- Percent Complete and Percent Spent
- Forecasting
- The 50-50 Rule
- Analyze Variance
- Status Reporting

CHANGE MANAGEMENT WITHIN THE PROJECT

- Where Does Change Come From?
- Change Management
- Process
- Document Change Requests
- Effect of Change
- Managing Change
- Updating the Plan
- Communicating Change

THE EXIT STRATEGY

- Project Closeout
- Exit Strategy Process
- Fulfill Contract Obligations
- Conduct Final WBS Review
- Organize Files
- Assess Lessons Learned
- Finalize Customer Relationships
- Celebrate Success
- Close Projector Phase

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