€TRAINING

Planning for Performance Excellence Through Project Scheduling Mastery

11 - 22 November 2024
Munich (Germany)

Planning for Performance Excellence Through Project Scheduling Mastery

REF: P260 DATE: 11 - 22 November 2024 Venue: Munich (Germany) - Fee: 10100 Euro

Introduction:

The Planning for Performance Excellence Through Project Scheduling Mastery program provides advanced training in project scheduling and planning. The program empowers participants to effectively plan, schedule, and manage projects to meet organizational objectives and deliver outstanding results. It enhances participants' skills in optimizing timelines and improving project performance for organizational success.

Program Objectives:

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

- Create an integrated project plan incorporating scope, time, resources, and cost management for effective project management.
- Utilize project network diagrams for Critical Path Method CPM and advanced PERT calculations to assess schedule and cost risks.
- Implement continuous project performance monitoring and delivery control to ensure project success.
- Employ earned value techniques to measure, forecast, and control project performance accurately.
- Develop precise budget estimates throughout project phases and understand optimal contracting structures to achieve desired results.

Targeted Audience:

- Project Managers.
- Project Cost Estimators.
- Cost Controllers.
- Project Planners.
- Contract Professionals.
- Project Procurement Staff.

Program Outlines:

Unit 1:

Project Scope Planning and Definition Fundamentals:

- Develop Scope Planning strategies incorporating Work Breakdown Structures WBS and Work Packages for effective project delineation.
- Establish a Statement of Work SOW - Technical Baseline and Scope Execution Plan to guide project implementation.
- Address the Triple Constraints of Time, Cost, and Scope, alongside considerations for Project Quality Issues and Risk Analysis.
- Define Project Deliverables and outline Resource Requirements to ensure successful project execution.
- Integrate comprehensive Project Scope Management techniques to align project goals with stakeholder expectations and optimize project outcomes.

Unit 2:

Project Schedule Planning and Critical Path Method:

- Utilize Precedence Network Diagramming and Job Logic Relationship Charts for comprehensive project visualization.
- Perform Critical Path Analysis and Project Float Analysis to identify critical activities and manage project timelines effectively.
- Implement Lead and Lag Scheduling techniques to optimize task sequences and minimize delays.
- Estimate Activity Durations and create Milestone Charts to track project progress against schedule baselines.
- Manage Resource and Cost Allocation using Gantt Charts and integrate Project Estimating Processes for accurate budgeting and resource planning.

Unit 3:

Resource Allocation and Resource Levelling:

- Efficiently manage resources through Planning and Scheduling Limited Resources techniques.
- Prioritize resources using Resource Allocation Algorithms to address Resource Contention effectively.
- Implement Resource Levelling strategies when Project Duration is Fixed to optimize resource utilization.
- Apply the Brooks Method of Resource Allocation to enhance resource allocation efficiency.
- Manage workforce fluctuations by Increasing the Workforce and Scheduling Overtime as needed to mitigate interruptions to the schedule.

Unit 4:

Accelerating the Project Schedule:

- Identify Circumstances Requiring Project Acceleration and understand the Time-Cost-Scope Trade-off.
- Implement Project Time Reduction strategies considering Direct and Indirect Project Costs.
- Explore Options for Accelerating the Schedule and understand the process of Crashing the Schedule.
- Develop a Pre-Accelerated Schedule and a Crash Cost Table to plan for acceleration effectively.
- Execute Acceleration in Practice, determining the Optimal Acceleration Point and utilizing Gantt Charts for an Accelerated Schedule.
- Mitigate risks by considering Network Activity Risk Profiles, Additional Considerations, and strategies for Project Cost Reduction.

Unit 5:

Project Contingency Planning:

- Utilize Program Evaluation and Review Technique PERT for estimating project duration and managing uncertainties.
- Perform Path Convergence Analysis to identify and resolve issues in project scheduling.
- Calculate Standard Deviation for Critical Path activities to assess project variability.
- Understand Z-Values and their significance in determining the Probability of Project Completion at a Required Date.
- Apply Network Risk Profile Types and Normal Distribution concepts to estimate project duration effectively.

Unit 6:

Line of Balance Scheduling - The Planning of Recurring Activities:

- Develop a Line of Balance Schedule, incorporating Velocity Diagrams and Linear Scheduling for efficient project planning.
- Calculate Velocity Diagram Production Rates to optimize resource utilization and sequence activities effectively.
- Create a Linear Sequence of Activities using Velocity Diagrams, ensuring a balanced project schedule.
- Implement Buffer insertion to account for Variable Conditions and maintain project timelines.
- Compare Unbalanced with Balanced Schedules to assess the impact on project progress and performance.
- Measure Planned Progress on Schedule using Velocity Diagrams reflecting Expected Conditions and adjust plans based on Actual Progress and Work Conditions.

Unit 7:

Software Tools for Project Scheduling

- Overview of project management software.
- Introduction to scheduling tools e.g., Microsoft Project, Primavera P6.
- Creating project schedules using software.
- Analyzing and optimizing schedules.
- Integrating software tools with project management processes.

Unit 8:

Continuous Improvement in Project Scheduling

- Principles of continuous improvement.
- Process evaluation and analysis.
- Identifying key performance indicators KPIs for project scheduling.
- Implementing process improvements.
- Monitoring and measuring the impact of changes.
- Establishing a culture of continuous improvement.

Unit 9:

Project Execution Management, Control, and Reporting:

- Track and monitor project progress effectively through Progress Tracking and Monitoring techniques.
- Manage project costs efficiently using Project Cost Management strategies.
- Implement the Earned Value Control Process to assess project performance accurately.
- Analyze Schedule and Cost Variances to identify deviations from planned targets.
- Utilize Progress Control Charts for Trend Analysis and Forecasting of Schedule and Cost Variances.
- Manage Labour and Materials effectively while controlling costs to ensure project success.

Unit 10:

Project Recovery Plan Development:

- Project Variance Analysis and Quantification.
- Schedule Performance Index SPI.
- Cost Performance Index CPI.
- Setting Schedule and Cost Control Limits.
- Project Recovery Data Assessment.
- Schedule and Cost Recovery Analysis and Plan.
- Project Recovery Baselines and Controls.