MERCURY

Project Planning & Scheduling Training Course

26 - 30 Aug 2024
Vienna (Austria)

Project Planning & Scheduling Training Course

Ref.: 4104_258362 **Date:** 26 - 30 Aug 2024 **Location:** Vienna (Austria) **Fees:** 4900 **Euro**

Introduction

The Project Planning & Scheduling Training Course is designed to tackle the pervasive issue of delays afflicting countless projects within private and public sectors. A primary culprit for these delays is the need for more advanced applications of cutting-edge project planning and scheduling methodologies.

Understanding the principles of project scheduling training, planning and scheduling professional training, and project planning scheduling and control can significantly improve the chances of meeting an organization's financial and strategic goals despite the complex challenges presented by scope, cost, and time constraints.

Enhancing the effectiveness of project execution and delivery through advanced project planning and scheduling techniques is essential for successful project management. This project scheduling and planning course is tailored to incorporate vital concepts such as planning and scheduling in project management.

The project planning and scheduling course also addresses the certification and skills needed in the field. It is ideal for those seeking a project scheduling or professional scheduler certification.

This Project Planning & Scheduling Training Course integrates the latest practices and methodologies in project planning and scheduling, allowing participants to elevate their capabilities in managing complex projects efficiently. Whether you want to begin a project management career or obtain advanced planning and scheduling certification, this course provides invaluable knowledge and practical skills.

Targeted Groups

This course is particularly beneficial for professionals involved in the intricacies of project planning and scheduling and those aspiring to enhance their scheduling skills:

- Project Planning Engineers.
- Project Cost Estimators.
- Project Designers.
- Project Planners and Schedulers.
- Contracts Professionals.
- Project Procurement and Purchasing Staff.
- Project Control and Business Services Professionals.
- Individuals responsible for project proposals in client and contracting companies.

Course Objectives

By the end of this comprehensive project scheduling and planning training, participants will:

- Maintain continuous project performance and delivery control.
- Estimate and allocate project costs and resources
- Measure, forecast, and control project performance by employing earned value techniques
- Accelerate the schedule when required by adverse circumstances.
- Manage and mitigate schedule, cost, scope, and resource risks associated with the project.
- Develop a line of balance schedules and velocity diagrams for repetitive or recurring work.
- Benefit from the financial effects of the learning curve on recurring work
- Develop a project recovery plan for budget and schedule overruns.
- Produce clear and concise project progress reports.
- Prepare budget estimates that will enable the owner-organization to make informed decisions as to the feasibility of a potential project.
- Compare the costs of alternative strategies or technical approaches to ensure the most economical project at the desired level of quality.
- Structure the contract compensation arrangement to provide the highest incentives to complete the project on schedule and within the determined budget.
- Keep accurate control of the progressive budgeting process based on the various design stages.
- Prepare accurate budget estimates through the programming phase, the schematic design phase, and finally, the design development phase
- Understand the most appropriate contracting structure to ensure the desired project results.
- Apply proper risk analysis to mitigate risks at minimal costs effectively and to determine appropriate contingencies for residual risks.
- Obtain the skills required to prepare and manage the bidding process.

Targeted Competencies

Participants in the project planning and scheduling course will develop competencies such as:

- To deliver projects on time and within budget.
- Understand what it takes to be a successful project manager.
- Skill and confidence to plan and control projects successfully and sidestep the most common project management pitfalls and problems.
- Appreciate the philosophy, framework, standards, and approaches to the delivery of the projects.
- Understand and practice effective project management techniques in completing and handing over projects.
- Develop an initial project budget for the owner.
- Determine project feasibility.
- Design the project within the owner's budget.
- Evaluate alternative design concepts and project components.
- Prepare bids.
- Establish project budgets.
- Substantiating claims and resolving disputes.
- Prepare a schedule of values.

Course Content

Unit 1: Project Scope Planning and Definition

- Scope planning.
- Work Breakdown Structures WBS.
- Work packages.
- Statement of Work SOW - technical baseline.
- Scope execution plan.
- The triple constraints are time, cost, and scope.
- Project quality issues.
- Project risk analysis.
- Project deliverables.
- Resource requirements.

Unit 2: Project Schedule Planning and Critical Path Method

- Precedence network diagramming.
- Job logic relationship chart.
- Critical path analysis.
- Project float analysis.
- Lead and lag scheduling.
- Activity duration estimation.
- Milestone charts.
- Gantt chart - schedule baseline.
- Project estimating processes.
- Production and productivity planning.

Unit 3: Resource Allocation and Resource Leveling

- Management of resources.
- Planning and scheduling limited resources.
- Resource allocation algorithms for resource prioritization.
- Solv resource contention.
- Resource leveling when project duration is fixed.
- "Brooks" method of resource allocation.
- Increase the workforce.
- Solve interruptions to the schedule.
- Schedule overtime.

Unit 4: Accelerating the Project Schedule

- Circumstances requiring project acceleration:
- Time-cost-scope trade-off.
- Project time reduction.
- Direct project costs.
- Indirect project costs.
- Options for accelerating the schedule:
- Crash the schedule - how?
- Pre-accelerated schedule.
- Develop a crash cost table.
- Acceleration in practice.
- The optimal acceleration point.
- "Gantt" chart for an accelerated schedule.
- Network activity risk profiles.
- Additional considerations.
- Multiple critical paths.
- Project cost reduction.

Unit 5: Project Contingency Planning

- Program Evaluation and Review Technique PERT.
- Path convergence analysis.
- Solve the path convergence problem.
- Network risk profile types.
- Normal distribution.
- PERT, probability, and standard deviation formulae.
- Calculate the standard deviation.
- Understand the standard deviation for the critical path.
- Z-values: the likelihood of project completion at a required date.
- True critical path.
- Network activity risk profiles.

Unit 6: Line of Balance Scheduling - The Planning of Recurring Activities

- Preparing a line of balance schedule includes the following steps.
- Understand velocity diagrams and linear scheduling.
- Velocity diagram production rate calculations.
- "Linear" sequence of activities as a series of velocity diagrams.
- Balance the schedule.
- Calculations for a Line of Balance Schedule.
- Line of Balance formulae.
- Target units per week.
- Determine crew size.
- Actual rate of output.
- Time to complete one activity.
- Elapsed time for recurring activity.
- The slope of the line from activity start to activity finish.
- Balanced project schedule without buffers finish-start.
- Insert buffers.
- Compare unbalanced with balanced schedules.
- Measure planned progress on schedule.
- Velocity diagram reflecting expected conditions.
- Actual progress and work conditions.
- Variable conditions.

Unit 7: Project Execution Management, Control, and Reporting

- Progress tracking and monitoring.
- Project cost management.
- Earn value control process.
- Schedule variances.
- Cost variances.
- Progress control charts - trend analysis.
- Understand schedule and cost variance forecasting.
- What is Labor management and cost control?
- What are materials management and cost control?
- Earn value analysis.
- Earn value reporting.

Unit 8: Project Recovery Plan Development

- Project of variance analysis and quantification.
- Schedule Performance Index SPI.
- Cost Performance Index CPI.
- Setting schedule and cost control limits.
- Project recovery data assessment.
- Understand schedule and cost recovery analysis.
- Understand the schedule and cost recovery plan.
- Project recovery baselines and controls.

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Registration form on the :
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