MERCURY

Project Scheduling and Planning Skills Training Course

8 – 19 March 2027
Accra (Ghana)



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Ref: 4018_1083595 **Date:** 8 – 19 March 2027 **Location:** Accra (Ghana) **Fees:** 9500 Euro

Introduction:

The late delivery of projects has become the scourge of project professionals worldwide. Countless projects undertaken by organizations in the private and public sectors significantly overrun the project schedule and budget and, as a consequence, fail to achieve the organization's financial and strategic objectives, often with sizable increases in costs and substantial financial losses to the organization.

This project planning and scheduling professional training course is due mainly to the failure of many project professionals to successfully apply modern project planning, scheduling, and control tools to their projects.

In addition to the financial losses suffered by the organization, many such projects also fail to deliver the required quality of outcomes intended for the project as a direct consequence of inadequate planning and control.

Enhancing Project Management through Scheduling Skills:

In project management, scheduling skills are vital for ensuring that projects are delivered on time and within budget and resource constraints. This project planning and scheduling course is not only a stepping stone towards obtaining a project scheduler certification but also incorporates various aspects of project scheduling courses, including planning and scheduling course content and scheduling and planning training. Through hands-on scheduling training courses, participants will successfully learn how to incorporate schedule planning into project management.

Participants interested in learning scheduling skills will find this project planning and scheduling course valuable, as it covers principles of project planning, scheduling, and control and offers guidance in project planning and scheduling training. By diving deep into the methodologies of project planning schedules, the training aims to educate participants on the core elements of planning and scheduling in project management.

Moreover, this course prepares individuals for planning and scheduling professional training, enhancing their project management planning and scheduling acumen. Key scheduling skills are imparted through an understanding of project scheduling in project management and its application in real-world scenarios.

By completing this project planning and scheduling course, attendees will be well-equipped with knowledge that significantly enriches their scheduling and project management skills. They will have a broader concept of project planning and scheduling, ensuring the effective coordination and execution of all project-related activities.

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Targeted Groups:

- Project managers.
- Cost estimators.
- Project schedulers.
- Project designers.
- Project planner.
- Senior managers who want to understand best practices in project management.
- This project planning and scheduling training course is for those interested in knowing more about scheduling and planning in a project environment.

Course Objectives:

At the end of this project planning and scheduling course, the participants will be able to:

- Gain knowledge of techniques used in resource planning and control.
- Understand the time-cost trade-offs.
- Identify risk sources, minimize their impact, and learn how to sustain project momentum.
- Learn how to administer project documentation and reporting.
- Develop effective performance monitoring and control systems.
- Integrate scope, time, resources, and cost management into a dynamic, manageable plan.
- Develop project network diagrams for CPM and advanced PERT calculations to identify schedule and cost risks.
- Maintain continuous project performance and delivery control.
- Accurately estimate and allocate project costs and resources.
- Measure, forecast, and control project performance by employing earned value techniques
- The compressor accelerates 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.

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Targeted Competencies:

- Ability to deliver projects on time and within budget.
- Proactive identification of what a project requires.
- Understanding of 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.
- Appreciation of the philosophy, framework, standards, and approaches to the delivery of the projects.
- Understanding and practicing effective project management techniques in completing and handing over projects.

Course Content:

Unit 1: Project Scope Planning and Definition Fundamentals

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

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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.
- Resource and cost allocation.

Unit 3: Resource Allocation and Resource Levelling:

- Management of resources.
- Planning and scheduling limited resources.
- Resource allocation algorithms for resource prioritization.
- Solving resource contention.
- Resource leveling when project duration is fixed.
- The "Brooks" method of resource allocation.
- Increasing the workforce.
- Solving interruptions to the schedule.
- Scheduling overtime.

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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.
- Crashing the schedule - How?
- Pre-accelerated schedule.
- Developing 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.
- Solving the path convergence problem.
- Network risk profile types
- Normal distribution.
- PERT, probability, and standard deviation formulae.
- Calculating the standard deviation.
- The standard deviation for the critical path.
- Z-Values: The probability of project completion at a required date.
- True critical path.
- Network activity risk profiles
- Application: Estimating project duration.

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

- Preparing a line of balance schedule.
- Velocity diagrams and linear scheduling.
- Velocity diagram production rate calculations.
- Linear sequence of activities as a series of velocity diagrams.
- Balancing the schedule.
- Calculations for a line of balance schedule.
- Line of balance formulae.
- Target units per week.
- Determining 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.
- Inserting buffers.
- Comparison of unbalanced with balanced schedules.
- Measuring planned progress on schedule.
- Velocity diagram reflecting expected conditions.
- Actual progress and work conditions.
- Variable conditions.

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Unit 7: Project Execution Management, Control, and Reporting:

- Progress tracking and monitoring.
- Project cost management.
- Earned value control process.
- Schedule variances.
- Cost variances.
- Progress control charts - trend analysis.
- Schedule and cost variance forecasting.
- Labor management and cost control.
- Materials management and cost control.
- Earned value analysis.
- Earned value reporting.

Unit 8: 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.
- Schedule and cost recovery plan.
- Project recovery baselines and controls.