

Project Planning, Scheduling and Control Training

Course

Professional Training Course

Skillslab Training Provider

Skills for Tomorrow's World 



Course Description

Introduction

Project Planning, Scheduling and Control is an advanced professional training course designed to strengthen the capabilities of project managers, planners, engineers, team leaders, and professionals responsible for delivering projects on time, within budget, and according to defined performance requirements. The course provides a structured approach to project planning, scheduling, resource management, progress monitoring, cost control, forecasting, and corrective action.

In today's complex project environment, organizations require more than a project schedule. They need integrated planning and control systems that provide reliable visibility into progress, resource utilization, schedule performance, emerging risks, and potential delays. This course equips participants with practical techniques to establish realistic project baselines, develop effective schedules, measure actual performance, identify deviations, and maintain control throughout the project life cycle.

The executive-level value of this program lies in its ability to connect project planning with organizational priorities and decision-making. Participants will learn how effective project scheduling and control can improve delivery predictability, strengthen accountability, optimize resources, reduce schedule overruns, and provide management with timely information for strategic intervention.

Through practical exercises, project scenarios, scheduling techniques, performance analysis, and real-world applications, participants will develop the capabilities required to transform project plans into disciplined execution and measurable results.

Course Objectives

The Project Planning, Scheduling and Control course aims to provide participants with the knowledge, tools, and practical capabilities required to plan, schedule, monitor, and control projects effectively.

By the end of the course, participants will be able to:

- Understand the integrated project planning, scheduling, and control framework.
- Translate project objectives and scope into structured and manageable project activities.
- Develop comprehensive work breakdown structures for effective project planning.
- Define activities, dependencies, milestones, constraints, and sequencing requirements.
- Estimate project activity durations and establish realistic scheduling assumptions.
- Develop project network diagrams and determine logical activity relationships.
- Apply critical path analysis to identify schedule priorities and time-sensitive activities.
- Establish practical project baselines for schedule and performance measurement.
- Plan and optimize project resources according to operational requirements and constraints.
- Monitor actual project progress against approved plans and schedules.
- Identify schedule variances, delays, bottlenecks, and emerging performance issues.
- Apply project control techniques to support timely corrective and preventive action.
- Integrate schedule, cost, resource, and risk information for better project decisions.
- Develop reliable project forecasts and evaluate potential completion scenarios.
- Prepare meaningful project performance reports and management dashboards.
- Strengthen project governance, accountability, and stakeholder communication.

Course Content (5-Day Training Outline)

Day 1: Project Planning Framework and Scope Development

- Understanding the project life cycle and the role of integrated project planning.
- Relationship between project strategy, objectives, scope, schedule, cost, resources, and performance.
- Key principles of effective project planning and project controls.
- Defining project objectives, deliverables, assumptions, constraints, and success criteria.
- Understanding project scope and establishing clear scope boundaries.
- Developing an effective work breakdown structure.
- Converting project deliverables into manageable work packages.
- Defining activities required to complete project work.

- Establishing project milestones and key decision points.
- Understanding planning levels from executive milestones to detailed execution schedules.
- Assigning responsibilities and establishing accountability for project activities.
- Identifying planning assumptions and validating project information.
- Developing an initial project planning framework.
- Practical exercise: Building a structured project plan from defined project requirements.

Day 2: Project Scheduling and Critical Path Analysis

- Understanding the principles of project scheduling.
- Translating the work breakdown structure into a logical project schedule.
- Defining activity relationships and dependencies.
- Understanding finish-to-start, start-to-start, finish-to-finish, and other scheduling relationships.
- Applying leads and lags appropriately.
- Estimating activity durations using practical estimation techniques.
- Developing project network diagrams.
- Calculating early and late activity dates.
- Understanding total float and free float.
- Identifying the project critical path.
- Evaluating near-critical activities and schedule sensitivity.
- Establishing project calendars and scheduling constraints.
- Developing realistic project milestones and completion targets.
- Reviewing schedule quality, logic, and feasibility.
- Understanding schedule baseline development and approval.
- Practical exercise: Developing and analyzing a complete project network schedule.

Day 3: Resource Planning, Schedule Optimization and Risk Integration

- Understanding resource requirements within project schedules.
- Identifying labor, equipment, material, financial, and specialist resource needs.

- Assigning resources to project activities.
- Analyzing resource availability and capacity constraints.
- Identifying over-allocation and resource conflicts.
- Applying resource leveling and resource smoothing techniques.
- Balancing schedule objectives with resource limitations.
- Understanding schedule compression techniques.
- Applying crashing and fast-tracking where appropriate.
- Evaluating the cost, risk, and operational implications of schedule acceleration.
- Integrating project risks into planning and scheduling.
- Identifying schedule risks, uncertainties, and potential disruption points.
- Developing schedule contingency and management reserves.
- Conducting scenario analysis and evaluating alternative project strategies.
- Establishing an optimized and achievable project schedule.
- Practical exercise: Optimizing a constrained project schedule while protecting key milestones.

Day 4: Project Monitoring, Performance Measurement and Control

- Understanding the project control cycle.
- Establishing effective project monitoring and reporting processes.
- Capturing accurate project progress information.
- Defining progress measurement rules and reporting cut-off dates.
- Comparing actual performance with the approved project baseline.
- Measuring schedule performance and identifying variances.
- Understanding planned value, earned value, and actual cost concepts.
- Applying earned value management principles for integrated performance measurement.
- Interpreting schedule and cost performance indicators.
- Conducting schedule variance and trend analysis.
- Identifying the root causes of project delays and performance deviations.
- Evaluating the impact of changes on project completion dates.

- Managing project changes and maintaining baseline integrity.
- Developing corrective action and schedule recovery strategies.
- Applying exception-based project control and management escalation.
- Practical exercise: Analyzing project performance data and developing a recovery action plan.

Day 5: Forecasting, Reporting and Strategic Project Control

- Understanding the role of forecasting in effective project management.
- Developing realistic forecasts based on current project performance.
- Forecasting project completion dates and remaining duration.
- Evaluating schedule trends and future performance scenarios.
- Identifying early warning indicators for potential project delays.
- Developing schedule recovery and acceleration plans.
- Prioritizing corrective actions based on business and project impact.
- Understanding project dashboards and executive reporting requirements.
- Selecting meaningful project performance indicators.
- Preparing concise schedule and progress reports for senior management.
- Communicating project status, risks, delays, and required decisions.
- Conducting project review and performance meetings.
- Strengthening governance through transparent project control information.
- Integrating schedule, cost, risk, resource, and change information.
- Establishing continuous improvement practices for project planning and controls.
- Final practical workshop: Developing an integrated project planning, scheduling, monitoring, and control framework.

Target Audience

This Project Planning, Scheduling and Control training course is designed for professionals involved in project development, execution, monitoring, reporting, and governance across government entities, ministries, public sector organizations, engineering companies, construction organizations, infrastructure projects, energy

companies, industrial organizations, and large corporations.

The course is particularly suitable for:

- Project managers and project directors.
- Project planning and scheduling professionals.
- Planning engineers and project control engineers.
- Project coordinators and project administrators.
- Program and portfolio management professionals.
- Engineering and construction professionals.
- Operations and maintenance managers.
- Cost control and project control professionals.
- Contract and commercial management professionals.
- Risk management professionals.
- Project management office professionals.
- Department heads and functional managers involved in projects.
- Government project and program management teams.
- Professionals responsible for capital projects and strategic initiatives.
- Executives and managers seeking stronger visibility into project performance.

Course Requirements

No advanced technical specialization is required to attend this course. However, participants will gain greater value if they have previous exposure to projects, planning, engineering, operations, project coordination, or management responsibilities.

Participants are encouraged to:

- Have a basic understanding of project management concepts.
- Bring examples of project planning or scheduling challenges from their organizations where appropriate.
- Participate actively in practical exercises, discussions, and project scenarios.
- Be prepared to analyze project information and make planning and control decisions.

- Have a working understanding of basic numerical calculations used in project performance analysis.

Training Methodology

The training methodology combines structured instruction with practical project planning and control applications to ensure participants can transfer the concepts directly to their professional environments.

The course uses:

- Expert-led presentations and facilitated discussions.
- Real-world project planning and scheduling examples.
- Practical project scheduling exercises.
- Work breakdown structure development workshops.
- Critical path and network analysis exercises.
- Resource planning and schedule optimization activities.
- Project performance measurement exercises.
- Schedule variance and trend analysis.
- Project delay and recovery scenarios.
- Case studies based on realistic project environments.
- Individual and group problem-solving activities.
- Executive-level project reporting exercises.
- Practical templates, frameworks, and project control tools.
- Continuous instructor feedback and facilitated peer learning.

The methodology emphasizes application rather than theory alone, enabling participants to understand how project planning, scheduling, monitoring, forecasting, and control techniques operate within real organizational and project environments.

Learning Outcomes

Upon successful completion of the Project Planning, Scheduling and Control course, participants will be able to:

- Develop structured and realistic project plans aligned with organizational objectives.
- Create effective work breakdown structures and activity definitions.

- Build logically sequenced project schedules based on dependencies and constraints.
- Perform critical path analysis and identify schedule priorities.
- Analyze project float and understand its impact on delivery dates.
- Establish reliable schedule baselines for performance measurement.
- Integrate resource requirements into project schedules.
- Optimize project schedules under resource and time constraints.
- Incorporate project risks and uncertainties into planning decisions.
- Measure actual progress against approved project baselines.
- Analyze schedule and cost performance using recognized project control techniques.
- Detect project delays and performance deterioration at an early stage.
- Determine the causes and potential consequences of schedule deviations.
- Develop practical corrective actions and schedule recovery strategies.
- Produce reliable project forecasts and completion estimates.
- Develop meaningful project performance indicators and management reports.
- Communicate project performance effectively to senior management and stakeholders.
- Strengthen organizational project governance through disciplined planning and control.
- Apply integrated project planning, scheduling, and control practices to complex real-world projects.

Instructor Profile

The course is delivered by “An internationally certified expert with extensive practical and consulting experience.”

The instructor brings strong expertise in project management, project planning, scheduling, project controls, performance monitoring, resource optimization, risk management, and organizational project delivery. The training approach combines international best practices with practical insights gained from complex project and consulting environments.

Participants benefit from a highly practical learning experience focused on the challenges faced by project managers, planners, engineers, project control professionals, government entities, and large organizations

responsible for delivering high-value initiatives.

Contact Us

For registration inquiries, upcoming dates, or group pricing, please contact us:

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