MERCURY

Integrated Project Planning, Scheduling, Productivity & Resource Management Course

8 – 12 November 2026
Dubai (UAE)



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Ref: 121343_1028668 **Date:** 8 – 12 November 2026 **Location:** Dubai (UAE) **Fees:** 4900 Euro

Introduction

The Integrated Project Planning, Scheduling, Productivity & Resource Management course builds a solid theoretical foundation for planning and controlling complex projects across multiple industries. It provides a structured understanding of how effective scheduling, realistic productivity assumptions, and optimized resource planning directly influence project success. The course explores the full planning lifecycle, from schedule development and manpower calculations to progress measurement and recovery strategies. It emphasizes logical thinking, data-driven planning, and alignment between scope, time, and resources. Participants will gain clarity on EPC execution phases and their integration into master schedules. This course supports informed decision-making, improved predictability, and stronger project control capabilities.

Targeted Groups

This Integrated Project Planning, Scheduling, Productivity & Resource Management training targets professionals seeking specialized knowledge and skills:

- Project planners and scheduling engineers.
- Project managers in engineering and construction.
- Planning and control professionals in EPC projects.
- Cost engineers and project control analysts.
- Site engineers are involved in execution planning.
- Resource and manpower planning specialists.
- Professionals supporting project recovery initiatives.
- Technical managers oversee multi-project environments.

Course Objectives

Participants will achieve the following objectives by completing the Integrated Project Planning, Scheduling, Productivity & Resource Management Course:

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- Understand structured schedule development principles.
- Apply effective work breakdown structures.
- Establish logical sequencing and realistic constraints.
- Interpret productivity norms across disciplines.
- Calculate activity durations accurately.
- Determine manpower requirements logically.
- Link productivity assumptions to schedule outcomes.
- Measure progress using standardized methods.
- Track engineering, procurement, and construction phases.
- Analyze manpower distribution and resource trends.
- Interpret manpower histograms and S-curves.
- Identify delays and their root causes.
- Evaluate recovery options objectively.
- Apply re-baselining principles correctly.
- Strengthen integrated planning and control decisions.

Targeted Competencies

Participants will gain the following competencies during the program:

- Structured project schedule development capability.
- Logical activity sequencing and dependency analysis.
- Productivity-based planning and estimation skills.
- Duration and manpower calculation proficiency.
- EPC phase progress evaluation skills.
- Interpretation of progress measurement sheets.
- Resource analysis and optimization awareness.
- Manpower histogram and S-curve interpretation.
- Delay identification and analytical reasoning.
- Recovery planning and re-baselining understanding.
- Integrated resource and portfolio planning awareness.

Studying Scenarios

In this training, participants will develop their skills through the analysis of the following scenarios:

- Developing an integrated project schedule from the scope definition.
- Structuring WBS for multidisciplinary EPC projects.
- Estimating durations using productivity benchmarks.
- Calculating manpower for constrained project timelines.
- Measuring progress across engineering and construction stages.
- Analyzing manpower peaks using histograms.
- Interpreting S-curves for performance trends.
- Assessing delay impacts and recovery options.

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Course Content Outline

Unit 1: Schedule Development & Planning Fundamentals

- Key elements for effective project schedule development.
- Work Breakdown Structure development and activity structuring.
- Logical sequencing, dependencies, and planning constraints.
- Tools and planning inputs that simplify schedule development.

Unit 2: Productivity, Duration & Manpower Calculations

- Productivity concepts and discipline-based norms.
- Duration calculation methodologies and assumptions.
- Manpower requirement calculation techniques.
- Relationship between productivity, duration, and schedule logic.

Unit 3: Progress Measurement & EPC Execution Phases

- Progress measurement methods and progress measurement sheets.
- Engineering, procurement, and construction progress tracking.
- EPC execution steps and integration with planning:
  - Engineering.
  - Procurement.
  - Construction.
  - Pre-commissioning.
  - Commissioning.
  - Close-out.

Unit 4: Resource Analysis, Manpower Histograms & S-Curves

- Manpower histogram development and interpretation.
- Identifying manpower shortages and resource peaks.
- S-curve concepts, performance indicators, and applications.
- Developing S-curves from resource-loaded schedules.
- Building S-curves when schedules are not resource-loaded.

Unit 5: Delay Analysis, Recovery Planning & Re-Baselining

- Types of delays and delay analysis techniques.
- Determining additional manpower for schedule recovery.
- Recovery planning strategies, including crashing and fast-tracking.
- Resource mobilization and optimization planning.
- Re-baselining principles and best practices.
- Introduction to portfolio-level resource planning.

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Final Insights & Key Takeaways

This course equips professionals with a comprehensive theoretical understanding of integrated planning, scheduling, productivity, and resource management practices. Participants will leave with stronger analytical insight, improved planning logic, and enhanced capability to support successful project delivery across complex environments.