Integrated Project Planning, Scheduling, and Control Training Course

21 - 25 Dec 2026

Barcelona

5900 € (Per Person)

Ref: #PMP7983_122967

Course Introduction / Overview:

This comprehensive course provides an in-depth exploration of the principles and practices required to successfully manage the entire project lifecycle. In today's competitive environment, the ability to integrate planning, scheduling, and control systems is no longer a luxury but a critical necessity for project success. This program moves beyond siloed approaches, teaching participants how to create a unified framework where scope, time, and cost are seamlessly managed. Drawing on established methodologies, the course delves into the systematic approaches advocated by leading experts like Harold Kerzner in his seminal work, "Project Management: A Systems Approach to Planning, Scheduling, and Controlling". Participants will learn to develop robust project baselines, implement effective performance measurement techniques like Earned Value Management (EVM), and apply sophisticated project control strategies. BIG BEN Training Center has designed this course to be intensely practical, equipping professionals with the skills to anticipate challenges, make data-driven decisions, and steer projects to successful completion while managing stakeholder expectations and controlling project constraints. This is a definitive journey from project initiation to closure, focusing on the integration that binds all project management processes together for optimal results.

Target Audience / This training course is suitable for:

- Project Managers and Directors.
- Project Planners and Schedulers.
- Cost Control Engineers and Analysts.
- Project Team Leaders and Supervisors.
- Functional and Departmental Managers.
- Project Management Office (PMO) staff.
- Engineers and Technical Leads.
- Procurement and Contract Managers.
- Professionals aspiring to a career in project management.

Target Sectors and Industries:

- Construction and Engineering.
- Information Technology and Telecommunications.
- Oil, Gas, and Petrochemicals.
- Manufacturing and Industrial Operations.
- Healthcare and Pharmaceuticals.
- Banking and Financial Services.
- Aerospace and Defense.
- Governmental agencies and public sector organizations.
- Consulting and Professional Services.

Target Organizations Departments:

- Project Management Office (PMO).
- Engineering and Design.
- Operations and Production.
- Planning and Strategy.
- Finance and Cost Control.
- Information Technology (IT).
- Procurement and Supply Chain.
- Research and Development (R&D).
- Quality Assurance and Control.

Course Offerings:

By the end of this course, the participants will have able to:

- Develop a comprehensive Work Breakdown Structure (WBS) to define project scope accurately.
- Master advanced scheduling techniques including the Critical Path Method (CPM) and PERT.
- Formulate detailed project budgets and establish integrated cost baselines.
- Implement robust project monitoring and control systems for proactive management.
- Apply Earned Value Management (EVM) to measure project performance and forecast outcomes.
- Integrate scope, schedule, and cost baselines into a single, cohesive project plan.
- Manage project changes effectively through a structured integrated change control process.
- Identify, analyze, and develop response strategies for project risks.
- Generate clear and concise project performance reports for stakeholders.
- Lead project recovery efforts for troubled projects using systematic techniques.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be highly interactive, experiential, and focused on practical application. We believe that adult learning is most effective when participants are actively engaged in the process. This course moves beyond traditional lectures and incorporates a dynamic blend of learning techniques. A significant portion of the training is dedicated to hands-on workshops and project simulations where participants work in teams to plan, schedule, and control a realistic project from start to finish. These exercises allow for the immediate application of concepts like WBS development, network diagramming, and EVM calculations. Case studies drawn from various industries will be analyzed to understand real-world successes and failures in project integration. Facilitated group discussions and brainstorming sessions encourage peer-to-peer learning and the sharing of diverse professional experiences. Our expert instructors provide continuous feedback and coaching, ensuring that participants not only understand the theory but can also confidently apply these integrated project management skills in their own work environments upon completion of the course.

Course Agenda (Course Units):

Unit One: Foundations of Integrated Project Management

- The principles of project integration management.
- Understanding the complete project management lifecycle.
- Defining project scope, objectives, and deliverables.
- Developing the Work Breakdown Structure (WBS) and WBS Dictionary.
- Techniques for effective stakeholder identification and analysis.
- The role of the Project Management Information System (PMIS).
- Establishing the project charter and gaining formal authorization.

Unit Two: Project Planning and Scheduling Techniques

- Developing the project schedule management plan.
- Activity definition, sequencing, and duration estimating.
- Mastering the Critical Path Method (CPM) for schedule analysis.
- Utilizing Program Evaluation and Review Technique (PERT).
- Advanced dependency determination and lead/lag management.
- Developing realistic and resource-optimized project schedules.
- Establishing the schedule baseline for performance measurement.

Unit Three: Cost Estimating, Budgeting, and Resource Management

- Principles of project cost management.
- Techniques for accurate cost estimating (analogous, parametric, bottom-up).
- Developing the detailed project budget.
- Establishing the cost performance baseline (S-curve).
- Planning for human, material, and equipment resources.
- Resource allocation techniques, including resource leveling and smoothing.
- Integrating the resource plan with the project schedule and budget.

Unit Four: Performance Measurement and Project Control

- The integrated project control cycle.
- Key performance indicators (KPIs) for project tracking.
- Introduction to Earned Value Management (EVM).
- Calculating and interpreting Schedule Variance (SV) and Cost Variance (CV).
- Analyzing the Schedule Performance Index (SPI) and Cost Performance Index (CPI).
- Forecasting techniques including Estimate at Completion (EAC) and Estimate to Complete (ETC).
- Implementing an effective project reporting system.

Unit Five: Integrated Change Control, Risk, and Closure

- Implementing the integrated change control process.
- Managing changes to the project baselines.
- Project risk management planning and identification.
- Qualitative and quantitative risk analysis techniques.
- Developing risk response and mitigation strategies.
- Formalizing project closure and administrative closeout.
- Capturing lessons learned for continuous organizational improvement.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

In an era of constant change and agile methodologies, how can traditional integrated planning and control systems remain relevant and effective for complex projects?

What unique qualities does this course offer compared to other courses?

This course distinguishes itself by focusing intensely on the "integration" aspect of project management, a concept often discussed but rarely taught in a holistic, practical manner. While many courses treat planning, scheduling, and control as separate disciplines, this program is built on the philosophy that they are inseparable components of a single, dynamic system. We move beyond teaching how to use scheduling software or calculate formulas in isolation. Instead, we emphasize the strategic thinking required to build and maintain an integrated performance measurement baseline, which combines scope, schedule, and cost. The curriculum is heavily weighted towards hands-on simulations and case studies that force participants to make critical trade-off decisions, just as they would in a real project environment. Another unique quality is the deep dive into Earned Value Management (EVM) not just as a reporting tool, but as a predictive and proactive control mechanism. Participants learn to interpret performance indices to forecast future outcomes and implement corrective actions before deviations become critical. The course fosters a mindset of proactive control rather than reactive problem-solving, equipping managers with the foresight and analytical skills to navigate complexity and deliver projects successfully.