ICTD
المركز العالمي للتدريب والتطوير
International Centre For Training & Development

PMP110
PMI
Scheduling Professional

Course Introduction:

Managing a project establishing a comprehensive plan and time schedule; then this plan is updated as the project unfolds. Professionals realize that this process can be more challenging that some might think. First, a framework for the planning/scheduling mission and a clear identification of project scope is established. Based on this, all project conditions are thoroughly examined and analyzed. Afterwards, the appropriate methods and approaches for developing the project schedule are applied until the baseline plans are delivered to team members for execution purposes. Due to the extremely dynamic environments of most projects, it is rarity that project plans are identically respected. This induces periodic updates of the plan along with proper evaluation to judge if corrective actions are needed.

The Project Management Institute (PMI) has been adept in recognizing the importance of project scheduling, when it developed a new and specific credential for scheduling skills. This credential, which is called PMI Scheduling Professional (PMI-SP), demonstrates the professional qualifications and standing of its holders as scheduling experts in the international project management community. By achieving the PMI-SP certification, one displays evidence of his/her enhanced project scheduling skills and superior knowledge in this specific field.
This course will prepare the participants to quality and pass the certification exam for the PMI Scheduling Professional (PMI-SP) credential. The course will provide those attendants with comprehensive knowledge of how to successfully develop a project plan/time schedule and maintain, update or revise such plan throughout the execution period of this project. With such knowledge, the project manager (and/or planner) will be able to organize scarce resources, work under tight deadlines, control project execution and generate maximum team performance. To make the course as practical as possible, several mini-cases and exercises will be presented. Demonstrations on the computer for some project scheduling functions will be included, as well. Besides the PMI credential, attendants will be able to practically implement the course materials on their day to day project activities.

Course Objectives:

The course will follow the standard structure for the PMI Scheduling Professional Credential. Throughout the course, attendants will navigate through the five scheduling stages below:

- Schedule Mission Management – establishing a framework for project scheduling, within an integrated project management plan. Also, identifying the key issues for schedule development and control.
- Schedule Creation – Starting with scope identification, then, thoroughly manipulating the best practices in time and resources planning processes until a schedule baseline is established.

- Schedule Maintenance – Setting and implementing procedures for maintaining and updating the schedule.
- Schedule Analysis – A look at how to utilize the schedule model with analysis tools such as CPM, PERT, critical chain, Monte Carlo analysis and earned value analysis (EVA).
- Schedule Communications / Reporting – Establishing the communication and reporting channels within a project to distribute, track and update project members in concern about the project plan and schedule control aspects.
- In this training, attendants will benefit from many sources of information and references, including but not limited to, PMBOK 3rd and 4th editions, PMI Practice Standard for Scheduling, PMI-SP Credential Handbook, PMI-SP Exam Specification, along with a variety of trusted scheduling references

Who Should Attend?

This course will benefit field administrators-in-training, field representatives of architects, engineers, contractors, employers and government agencies, construction inspectors, construction managers, project managers, and others responsible for effective field administration in building construction

Course Outline:

Day 1:

- Course Opening
- Introduction to projects and project management
- Stages in project development, initiation, planning, execution/control and close-out
- PMI Project Management Body of Knowledge (PMBOK)
- PMBOK Knowledge areas and management processes
- Stage 1: Scheduling Mission Management
- Identifying key issues in successful scheduling
- Scheduling and the integrated project management process
- Establishing scheduling procedures for planning, update and maintenance
- Human resource development needs
- Stage 2: Schedule Creation
- Initiation, charter and scope statement
- Scoping and the practices of developing work breakdown structures (WBS)
- Activity listing

Day 2:

- Fundamentals of project scheduling
- Activity sequencing, PMI classification: mandatory/discretionary and external dependencies
- Lead and lag times
- Network diagramming, AOA and AON networks
- Duration estimating approaches
- Resource planning and activity durations
- Resource pools and resource breakdown structures
- Bar/Gantt charts and networks
- Basics of schedule calculations
- Early and late times (ES,EF,LS,LF), total and free floats (TF and FF), working examples
- Software application

Day 3:

- Resource loading and allocation
- Requirements vs. availability
- Scheduling under limited resources
- Schedule base lining, project manager authorization
- Stage 3: Schedule Maintenance
- Establishing procedures for maintaining and updating the project schedule
- Collecting activity status, evaluating the schedule progress
- Frequency and format for schedule updates
- Changes and schedule updating
- Software application
- Stage 4: schedule Analysis
- Study of alternatives, what if scenarios
- Schedule acceleration/crashing, time-cost trade-off
- Activity prioritization in schedule acceleration
- Critical chain (CC), project time buffers

Day 4:

- Uncertainty in project schedules
- Program evaluation and review technique (PERT)
- Optimistic, most likely and pessimistic durations
- Probability of completing project by certain date
- Project risks, risk register

- Identification and assessment of risks
- Risk-based scheduling
- Monte Carlo simulation
- Computer software application
- Project tracking and schedule updating
- Earned value analysis (EVA)
- Schedule performance indices, SV and SPI
- Variance analysis
- Schedule performance charts
- Prediction at job completion

Day 5:

- Stage 5: Schedule Communication/Reporting
- Basics of communication
- Communication planning and requirement analysis, stakeholder analysis
- Information distribution, communication channels and means
- Performance reporting, milestone schedules
- Conflict resolution and project closure
- Open discussions
- Wrap-up

Course Certificate:

International Center for Training & Development (**ICTD**) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionaires

- Group Work
- Discussion
- Presentation

Course Fees:

To be advised as per course location. This rate includes participant's manual, and-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Coffee / Tea / Snacks
10:20 - 12:20	Second Session
12:20 - 13:30	Lunch Break & Prayer Break
13:30 - 15:00	Last Session