Project Controls Institute ®

AACE Planning and Scheduling Professional (PSP) Certification Preparation Training
Course Brochure and Competency Matrix

▶ **INDEX:**

1. Course description

Course name: AACE Planning and Scheduling Professional (PSP) Certification Preparation.

Dedicated training in a structured manner allows candidates to demonstrate proficiency in project planning, developing schedules, updating, forecasting, monitoring and analyzing the integrated project schedules. A PSP is able to communicate effectively with all project stakeholders, both internal and external.

PSP certification will distinguish you as a professional that has the skills and knowledge that is benchmarked with international project planning and scheduling practices.

2. Course development

This course is mapped to the following standards or guides:

1. AACEi's Total Cost Management Framework

2. AACE's Planning and Scheduling Certification Study Guide

3. AACE's Skills & Knowledge of Cost Engineering, 6th Edition

4. CPM in Construction Management, 8th Edition

5. Construction Planning and Scheduling Manual, 2nd Edition

3. Certifications offered by professional bodies

▸ AACE Planning & Scheduling Professional (PSP)

4. Eligibility Requirements

▸ 8 years industry related experience or 4 years industry related experience plus 4-year industry related college degree

▸ Adherence to AACE's Canons of Ethics

5. Course Syllabus

Module#	Module Description
1	Planning Development
2	Planning Product
3	Schedule Inputs and Data
4	Creating Schedule
5	Schedule Maintenance
6	Schedule Outputs and Deliverables

6. Competency Matrix

Module 1	Planning Development
End state vision - This module provides an organized outline of planning inputs, data, considerations and constraints that require identification and evaluation so that appropriate decisions optimally satisfy the interests of the parties and the goals of the project.	
Understanding	**Skills achieved**

Understanding	Skills achieved
▶ Fundamental concepts of the planning process and its terminologies ▶ Appreciate that planning process is conceptual, dynamic, cyclical and iterative ▶ Understand contracts and their relationship to the planning process i.e. terms and conditions that influence the outcome of a planning process ▶ Understand how the goals and objectives of different stakeholders affect the planning process and schedule development ▶ Understand the purpose and effect of constructability analysis on project planning ▶ Understand the impact that resource considerations and constraints on a project ▶ Understand value engineering (VE) and its impact on cost, schedule, and quality of materials and equipment during planning ▶ Stakeholders' considerations & constraints ▶ Understand project variables that affect the planning process and the associated risks	▶ Document planning and scheduling requirement/specifications from contract ▶ Identify and define stakeholders and their interests ▶ Determine, evaluate and select the most appropriate alternative method to optimize construction time and costs ▶ Identify driving or key resources, consideration and evaluation of performance and productivity issues ▶ Implement Value Engineering to optimize life-cycle performance by guiding the selection of materials and installed equipment to maximize their functionality and quality while minimizing their costs ▶ Identify, evaluate and reconcile the stakeholder considerations and constraints ▶ Identify, evaluate and resolve or mitigate influential variables such as available resources, site considerations, local law/regulations

Module 2	Planning Product
End state vision - This module is designed to develop the ability of the learner to understand the tangible products developed by the planning team and how each of the planning product is essential to the planning product being complete and effective.	
Understanding	**Skills achieved**

Understanding	Skills achieved

▶ Approaches to planning (Top down and Bottom up)
 	
▶ Understanding how the following is developed within the planning process
  • Scope of work, Project goals
  • Work Breakdown Structure (WBS), Organization Breakdown Structure (OBS), Cost Breakdown Structure (CBS)
  • Responsibility Assignment Matrix (RAM), Control Accounts (CA), work packages (WP), planning packages (PP)
  • Sequencing and Phase relationship
  • Cost Estimate Development
  • Baseline plan/PMB
  • Planning for Periodic Forecasts
	▶ Plan the project based on its size, complexity and risk. This includes the following:
	  • Define scope of work, project goals
	  • Establish WBS, PBS, CBS
	  • Prepare RAM, CA, WP/PP
	  • Define project plan
	  • Define phase
	  • Sequence and phase relationship
	  • Develop cost estimate
	  • Develop a baseline plan/PMB
	  • Develop periodic forecasts
	  • Risk and Recovery Planning
	  • Planning for project control

Module 3	Schedule Inputs and data
End state vision - This module is designed to develop the ability of the learner to understand major sources of information required to enable initial schedule development.	
Understanding	**Skills achieved**
- Schedule scope definition and development - Understand the relationship between breakdown structures and scheduling - Components of schedule specification and its effect on schedule maintenance - Stakeholder goals, objectives, needs and their relationship to the schedule model - Cost estimate – key building block for defining and developing the baseline schedule model	- Define schedule scope and scheduling tool requirements - Document schedule change using WBS and OBS concept - Document schedule specification - Document stakeholder's inputs for schedule development and maintenance - Identify the initial risk associated with the project timeframe due to cost estimate and incorporate it into baseline schedule
Module 4	Creating schedule
End state vision - This module is designed to develop the ability of the learner to provide the basic knowledge and an outline structure for the means, methods, and tools necessary for the project schedule development process.	
Understanding	**Skills achieved**
- Components of various schedule types - Activity – Components, attributes and types - Duration estimates - Relationship types - Constraints and calendars - Milestones - Critical path - Attributes associated with schedule quality analysis and compliance review	- Select the schedule type that best fits the size, scope and complexity of the project - Identity activities - Estimate duration for activities - Model schedule (activities, logic links, resources, constraints, calendars and milestones) - Perform Schedule Quality Analysis - Create a baseline schedule/PMB - Document schedule basis

Module 5	Schedule Maintenance
End state vision - This module is designed to develop the ability of the learner to understand the basic knowledge and an outline structure for the means, methods, and tools necessary for the schedule maintenance.	
Understanding	**Skills achieved**

▸ Understand following concepts:
  • Data date
  • Reporting periods
  • Actual dates
  • Schedule variances
  • Progress reports and reviews
  • Schedule change management
▸ Understand the techniques for:
  • Progress measurement
  • Progress calculations
	▸ Gather data for schedule update
	▸ Update the schedule
	▸ Schedule forecast
	▸ Perform schedule analysis/ Tracking Schedule Progress
	▸ Identify schedule variances and trends
	▸ Develop progress reports and reviews
	▸ Perform schedule change management
	▸ Seek and incorporate feedback from stakeholders

Module 6	Schedule Output and Deliverables
End state vision - This module elaborates schedule output and deliverables which include control schedules, cost performance analysis, recovery schedules and management summaries.	
Understanding	**Skills achieved**
▸ Control level schedules ▸ Schedule acceleration ▸ Recovery schedules ▸ Management summary	▸ Develop control level schedules ▸ Schedule acceleration ▸ Prepare recovery schedules ▸ Prepare management summary report

Note – Our course brochures are updated on a regular basis for continuous improvement