Primavera P6 Professional Project Management Rel 19 Ed 1

Construction and engineering

DURATION	MODULES	COURSE CODE
5 Days	**37 Lectures**	**—**

Course Overview

This Primavera P6 Professional Project Management training takes you through the entire project life cycle, from planning to execution. Learn to add activities, assign resources, create a baseline, plan, schedule and more. It alsoexplores resource management and advanced project management techniques using P6 Professional. Learn new ways to manage resources and analyze project performance.

What You Will Learn

- SECTION I: Overview and Project Setup

Module 1: Project Management Life Cycle

- Topics
- Project Management Definitions
- Project Management Life Cycle Overview
- Initiating Process Group
- Planning Process Group
- Executing Process Group
- Controlling Process Group
- Closing Process Group
- Learning Objectives
- Identify the five process groups in the Project Management Life Cycle
- Describe the steps in each process group

Module 2: Understanding Data in P6 Professional

- Topics
- Overview of P6 Professional
- Enterprise Project Structure (EPS)
- EPS and Security
- Organizational Breakdown Structure (OBS)

- Enterprise Data vs. Project-Specific Data
- Learning Objectives
- Describe P6 Professional
- Explain EPS and OBS
- Distinguish between enterprise and project-specific data

Module 3: Overview and Navigation

- Topics
- Windows, Menus, Tabs, and Toolbars
- Layouts and Details
- Logging In and Access Modes
- Opening and Closing Projects
- Tabbed Windows and Tab Groups
- Customizing Toolbars and Menus
- Working with Layouts
- Gantt Chart, Activity Usage, Activity Network, Activity Table
- Customizing Layouts
- Selecting Columns, Displaying Activity Details, Saving Layouts
- Learning Objectives
- Log in and open projects in P6 Professional
- Navigate windows and tabs
- Open, customize, and save layouts

Module 4: Creating a Project

- Topics
- Project Overview
- Creating a Project
- Using the New Project Wizard
- Project Name, Start/End Dates, Responsible Manager, Assignment Rate Type
- Viewing and Editing Project Details
- General, Dates, Notebook, Codes, Defaults, Budget Log
- Learning Objectives
- Create a project using the wizard
- Navigate the Projects window
- View and modify project details

Module 5: Creating a Work Breakdown Structure (WBS)

- Topics
- Definition of WBS
- Viewing WBS Elements
- Creating the WBS Hierarchy
- Learning Objectives
- Define a Work Breakdown Structure
- Create multiple levels of WBS hierarchy

Module 6: Adding Activities

- Topics
- Definition and Components of Activities

Activity Types: Start/Finish Milestones, Task/Resource Dependent, Level of Effort, WBS Summary

- Activity Codes and Levels
- Adding Activities
- New Activity Wizard, Activity Details, Columns
- Adding Steps and Notebook Topics
- Assigning Activity Codes
- Learning Objectives
- Describe activities and types
- Add and modify activities
- Assign codes and add steps/notebook topics
- Case Study 1: Creating a Project
- SECTION II: Scheduling and Resources

Module 7: Assigning Calendars

- Topics
- Calendars and Calendar Pools
- Resource Calendars and Work Time Types
- Linking Holidays and Setting Workweek
- Setting Non-Work Time and Exceptions
- Viewing and Assigning Calendars
- Learning Objectives
- Define work and non-work time
- Create and assign calendars to projects and resources

Module 8: Creating Relationships

- Topics
- Network Logic Diagram
- Precedence Diagramming Method (PDM)
- Relationship Types: FS, SS, FF, SF
- Creating Relationships in Activity Network and Details
- Assigning Lag and Using GoTo Feature
- Viewing Relationships in Gantt Chart
- Learning Objectives
- Understand relationship types
- Create and view activity relationships

Module 9: Scheduling

- Topics
- Critical Path Method (CPM) Scheduling
- Data Date, Forward/Backward Pass

- Total Float, Must Finish By Dates
- Circular Relationships and Open Ends
- Scheduling a Project and Reviewing Schedule Log
- Learning Objectives
- Calculate schedules using CPM
- Analyze scheduling results and logs

Module 10: Assigning Constraints

- Topics
- Constraint Types: Must Finish By, Start On/After, Additional Constraints
- Applying Constraints to Projects and Activities
- Adding Comments and Notebook Topics
- Rescheduling Projects
- Learning Objectives
- Apply project and activity constraints
- Document constrained activities

Module 11: Creating Layouts

- Topics
- Grouping, Sorting, and Filtering Activities
- Creating and Applying Filters
- Collapsing/Expanding Groups
- Learning Objectives
- Customize layouts with grouping, sorting, and filtering

Module 12: Understanding Roles and Resources

- Topics
- Roles and Resources Overview
- Resource Types: Labor, Nonlabor, Material
- Viewing Roles and Resources
- Resource Details
- Learning Objectives
- Describe roles and resources
- View role and resource dictionaries

Module 13: Assigning Roles and Resources

- Topics
- Resource Management Steps
- Assigning Roles and Resources to Activities
- Assigning by Role or Directly
- Adjusting Units/Time, Primary Resource, Material Resources, Expenses
- Learning Objectives
- Assign resources and roles
- Adjust resource quantities and costs

Module 14: Optimizing the Project Plan

- Topics
- Analyzing Schedule Dates
- Shortening Project Schedule
- Resource Allocation and Overallocation
- Analyzing Project Budget
- Learning Objectives
- Optimize project schedule and resources
- Resolve overallocation and budget issues
- Case Study 2: Optimizing the Project
- SECTION III: Baselining and Execution

Module 15: Baselining the Project Plan

- Topics
- Baseline Concepts
- Creating and Managing Baselines
- Displaying and Customizing Baseline Bars
- Learning Objectives
- Create and manage baselines
- Display and modify baseline bars

Module 16: Importing and Exporting Data

- Topics
- Import/Export Wizards and Formats
- Exporting Projects
- Importing Projects and Reviewing Logs
- Learning Objectives
- Import and export project data

Module 17: Methods of Applying Progress

- Topics
- Updating Projects
- Auto Compute Actuals
- Manual Update and Timesheets
- Delegating Status Updates
- Learning Objectives
- Apply project progress using different methods

Module 18: Executing the Project Plan

- Topics
- Status Updating Process
- Data Date and Status Period

- Progress Spotlight
- Updating Activities and Milestones
- Rescheduling Projects
- Learning Objectives
- Update project status and reschedule

Module 19: Reflection Projects

- Topics
- Creating and Modifying Reflection Projects
- Merging Reflection Projects into Source Projects
- Learning Objectives
- Manage reflection projects
- Merge changes into source project

Module 20: Analyzing the Updated Project

- Topics
- Schedule Analysis
- Resource and Cost Analysis
- Shortening Schedule and Correcting Variances
- Learning Objectives
- Analyze updated project performance
- Identify and correct schedule and cost issues

Module 21: Reporting Performance

- Topics
- Reporting Methods
- Running Reports and Report Wizard
- Creating Time-Distributed Reports and Layout Reports
- Learning Objectives
- Generate and customize reports
- Run batch and time-distributed reports
- Case Study 3: Project Execution and Control
- SECTION IV: Appendices

Module 22: Creating Printed Output

- Output Controls, Page Setup, Headers and Footers
- Attachment Tools and Curtain Tool
- Customizing Data Date Style

Module 23: Managing Documents

- Project Documents, Linking, and Assigning
- Creating Document Records and Assigning to Activities

Module 24: Schedule Comparison

- Using Schedule Comparison
- Creating Comparison Reports

Module 25: Case Study Solutions

Primavera P6 Advanced Resource & Project Management – Modular Course Structure

- SECTION I: Resource Analysis and Allocation

Module 1: Resource and Role Analysis

- Topics
- Resource and Role Usage
- Resource and Role Limits
- Resolving Overallocation
- Logging In
- Resource Usage Profile and Analysis Settings
- Displaying Profiles and Activities for Selected Time Periods
- Viewing Allocation and Formatting Profiles
- Formatting Timescales
- Stacked Resource Histogram
- Viewing Role Allocation
- Analyzing Resources via Spreadsheet (Left, Middle, Right Panes)
- Editing the Resource Usage Spreadsheet
- Learning Objectives
- Analyze resource usage and role allocations
- Identify and resolve overallocation
- Format and interpret resource usage profiles and histograms
- Edit and customize resource usage spreadsheets

Module 2: Resource Assignments Window

- Topics
- Resource Assignments Window Overview
- Customizing the Spreadsheet
- Working in Assignment Details: General & Planning Tabs
- Adjusting Assignments
- Viewing Nonlinear Allocation
- Learning Objectives
- Use the Resource Assignments window for detailed planning
- Customize and manage assignment details
- Understand nonlinear allocation

Module 3: Manual Resource Allocation

- Topics

- Linear vs. Nonlinear Distribution of Work
- Resource Lag and Duration
- Resource Curves
- Adding Lag and Duration to Assignments
- Viewing and Assigning Resource Curves
- Learning Objectives
- Apply manual resource allocation techniques
- Assign and interpret resource curves
- Manage resource lag and duration

Module 4: Bucket Planning

- Topics
- Linear Distribution
- Bucket Planning Concept
- Specifying Activity Duration Type
- Editing Future Period Buckets (Single & Multiple Assignments)
- Tracking Manual Curves
- Learning Objectives
- Use bucket planning to allocate resources over time
- Edit future period buckets
- Track manual resource curves

Module 5: Leveling Resources

- Topics
- Leveling Overview and Handling Conflicts
- Resource Leveling Concepts
- Leveling Rules and Priorities
- Selecting Resources for Leveling
- Analyzing the Leveled Project
- Viewing Leveling Log
- Leveling Based on Activity and Project Priority
- Learning Objectives
- Perform resource leveling to resolve conflicts
- Apply leveling rules and priorities
- Analyze leveled project outcomes

Module 6: Storing Period Performance

- Topics
- Financial Periods
- Past Period Actuals
- Selecting Financial Periods
- Displaying and Storing Period Information
- Editing Past Period Data
- Case Study: Analyzing Resource Usage

- Learning Objectives
- Store and manage performance data for financial periods
- Edit and review past period actuals
- Apply resource analysis in a case study scenario
- SECTION II: Activity Duration, Progress, and Earned Value

Module 7: Duration Types

- Topics
- Time vs. Work
- Duration Type Concepts
- Choosing and Assigning Duration Types
- Recalculating Time/Work Equations
- Fixed Units/Time, Fixed Duration & Units, Fixed Duration & Units/Time
- Modifying Activities: Units, Duration, Adding Resources
- Learning Objectives
- Understand and assign appropriate duration types
- Modify activity parameters based on duration types
- Recalculate time and work equations

Module 8: Calculating Percent Complete

- Topics
- Percent Complete: Duration, Units, and Weighted Steps
- Assigning Percent Complete Type
- Updating Activities Based on Percent Complete
- Setting Up and Updating Weighted Steps
- Learning Objectives
- Track activity progress using percent complete methods
- Use weighted steps to measure performance
- Update activities based on physical, duration, or units percent complete

Module 9: Earned Value

- Topics
- Earned Value Analysis Overview
- Performance Variables: PV, EV, AC
- Schedule and Cost Variance
- Performance Indices: SPI, CPI
- Estimate to Complete (ETC) Calculations
- Performance % Complete and Weighted Milestones
- Updating Activities with Weighted Milestones
- 50/50 Rule and Activity Percent Complete
- Conclusions Based on Earned Value
- Learning Objectives
- Perform earned value analysis to track cost and schedule performance
- Calculate SPI, CPI, and estimate to complete

- Apply weighted milestones for accurate project tracking

Module 10: Advanced Scheduling

- Topics
- Critical Path Method
- Multiple Float Paths
- Scheduling Out-of-Sequence Activities
- Calendar Effect on Lag
- Retained Logic and Progress Override
- Using Predecessor & Successor Calendars
- Learning Objectives
- Apply advanced scheduling techniques
- Manage out-of-sequence activities
- Understand calendar effects on lag and scheduling

Module 11: User-Defined Fields and Global Change

- Topics
- User-Defined Fields (UDFs): Creation and Assignment
- Global Change: Creating, Logic Statements (If..Then..Else), Reports
- Workshop: Applying UDFs and Global Change
- Learning Objectives
- Create and use user-defined fields
- Perform global changes using conditional logic
- Apply global change results to project activities

Module 12: Managing Multiple Projects

- Topics
- Benefits of Managing Multiple Projects
- Viewing Multiple Project Activities
- Scheduling Multiple Projects
- Setting Default Project
- Handling Project Elements in Multi-Project Mode
- Learning Objectives
- Manage multiple projects in Primavera P6
- Schedule and view activities across projects
- Handle default projects and multi-project interactions
- Appendix
- Case Study Solutions