# Primavera P6 Professional: Project Planning & Scheduling

## Target Audience

This course is designed for project managers, planning engineers, schedulers, civil/structural engineers, and BIM professionals who want to develop expertise in project planning and scheduling using Primavera P6.

## Course Objective

This 40-hour course equips participants with fundamental and practical skills in Primavera P6. Learners will gain the ability to create structured project schedules, define logical relationships, and manage project data efficiently in a professional environment. The course builds a strong foundation for real-world project planning and control.

## Course Outcome

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

- Project Structuring: Create and manage Enterprise Project Structure (EPS) and Work Breakdown Structure (WBS).
- Logical Modeling: Developactivity relationships using CPM, including leads/lags.
- Resource & Progress Management: Assign resources, track progress, and manage baselines.
- Professional Reporting: Generate Gantt charts, look-ahead schedules, and tabular reports.
- Industry Application: Apply Primavera P6 in real-world construction and engineering workflows.

## Course Outline:

The course consists of **40 hours** (Theory + Hands-on Labs) and is divided into 11 chapters. Each chapter includes practical exercises and real-world scenarios.

## Chapter 1: Introduction to Primavera P6 & Enterprise Environment

- Overview of Project Planning & Scheduling Concepts
- Primavera as a Project Portfolio Management (PPM) Tool
- Enterprise Project Structure (EPS)
- Organizational Breakdown Structure (OBS)
- Understanding Roles and Responsibilities
- User Interface Overview
  - Ribbon, Activities Window, Project Browser
  - Layouts and Views

**- Lab Exercise: Navigate interface and explore enterprise structure**

## Chapter 2: Getting Started with a Project

- Creating a New Project
  - Selecting EPS Node and Naming Conventions
  - Project Details Setup
  - Setting Project Units (Engineering & Structural Units)
- Calendar Management
  - Global Calendar
  - Project Calendar
  - Resource Calendar

**- Lab Exercise: Create a new structural project with calendar setup**

## Chapter 3: Work Breakdown Structure (WBS) Development

- Understanding WBS Concepts
- Creating Hierarchical Project Breakdown
- WBS Codes and Customization
- Organizing Project Phases
- WBS Views and Layouts

**- Lab Exercise: Develop WBS for a building project**

## Chapter 4: Activity Creation & Coding

- Adding and Managing Activities
- Activity Types
  - Task Dependent
  - Resource Dependent
  - Milestones
  - Level of Effort
- Activity IDs and Naming Standards
- Activity Codes for Classification (Area, Discipline, Contractor)

**- Lab Exercise: Create activities and assign codes**

## Chapter 5: Schedule Logic Development

- Relationship Types
  - Finish-to-Start (FS)
  - Start-to-Start (SS)
  - Finish-to-Finish (FF)
  - Start-to-Finish (SF)
- Leads and Lags
- Network Logic Development
- Scheduling Process (F9)
- Understanding Data Date

- Lab Exercise: Build logic network for structural workflow

## Chapter 6: Critical Path Method (CPM) & Constraints

- Understanding CPM Concepts
- Total Float vs Free Float
- Identifying Critical Path
- Driving vs Non-driving Activities
- Applying Constraints
  - Start On
  - Finish On
  - Mandatory Dates

- Lab Exercise: Analyze critical path and apply constraints

## Chapter 7: Resource Management

- Creating Resource Library
  - Labor
  - Non-Labor
  - Material
- Assigning Resources to Activities
- Resource Calendars
- Resource Usage Profile & Histograms
- Resource Leveling Concepts

- Lab Exercise: Assign manpower and equipment resources

## Chapter 8: Layouts, Formatting & Visualization

- Gantt Chart Customization
  - Bar Styles and Labels

- Grouping and Sorting
- Filters

- Look-Ahead Schedule (2-week / 3-week)
- Critical Activities
- Saving and Managing Layouts

**- Lab Exercise: Create professional scheduling layouts**

## Chapter 9: Baselines & Progress Tracking

- Creating Baselines
- Updating Project Progress
  - Actual Start/Finish
  - Percent Complete
  - Scheduling Updates
- Variance Analysis
- Earned Value Basics

**- Lab Exercise: Update project and compare with baseline**

## Chapter 10: Reporting & Documentation

- Report Wizard
- Tabular Reports
  - Activity and Resource Reports
- Time-Scaled Logic Diagram (TSLD)
- Printing Layouts
  - Headers, Footers, Legends
- Exporting Reports (Excel/PDF)
- **Lab Exercise: Generate professional reports**