

# APMG Project Planning And Control™ (PPC) Foundation and Practitioner Training

## Course Outline

### Definition (DE)

#### Module 1: Key Concepts of Definition of Project

- Understand the Basics of Definition of Projects
  - Business Case
  - Scope Management
  - Requirements Management
  - Stakeholder Management
- Types of Hierarchical Breakdown Structures
  - Work Breakdown Structure (WBS)
  - Organisation Breakdown Structure (OBS)
  - Responsibility Assignment Matrix (RAM)
  - Cost Breakdown Structure (CBS)
  - Resource Breakdown Structure (RBS)

#### Module 2: Identify Appropriate Project Information and Keys Elements

- Works Information (WI)
  - Employers Information Specifies the Works to be Carried Out by the Supplier
  - Suppliers Response Incl. Details of how they Propose to Deliver the Works
- Statement of Work (SOW)
  - Customer Needs and Requirements
- Purpose of WBS
- Key Elements
  - Good Project Planning
  - Scheduling
  - Monitoring and Control
  - Definition of Business Case
  - Definition of Scope, Requirement, and Stakeholder Management

## **Planning (PL)**

### Module 3: Facts, Terms, and Concepts for Planning of a Project

- Definition and Outputs of Planning
- Names and Descriptions of the Principal Scheduling Components
- Terms of Planning
  - Dependency Management
  - Cost Estimating
  - Budgeting
- Definition of Key Handover and Closeout Terms
  - Handover
  - Project Closeout

### Module 4: Characteristics of Common Estimating Methods

- Specific Analogy Estimating
- Parametric Estimating
- Delphi Technique
- Definitive Estimating Methods
- Activity-Based Cost (ABC) Estimating
- Estimating Methodologies
  - Approximate Estimating Methods
  - Definitive Estimating Methods
- Definition of the Planning Role
- Purpose of Planning
- Approaches to Planning
  - Top-Down Planning
  - Bottom-Up Planning
  - Agile Planning in the Software Industry
- Planning Strategies
- Allowing for Risk
- Creating Breakdown Structures

- Level 1, 2, 3, and Beyond
- Product Breakdown Structure (PBS)
  - What is a 'Product' in Planning Terms?
  - Definition of a PBS
  - Purpose of a PBS
  - Constructing a PBS
- Work Breakdown Structure (WBS)
  - Principles of Designing a WBS
- Organisational Breakdown Structure (OBS)
- Responsibility Assignment Matrix (RAM)
- RACI Matrix
- Cost Breakdown Structure (CBS)
- Resources Breakdown Structure (RBS)
- Definition of Dependency Management
- Schedule Impact
- Handover and Project Closeout

## **Scheduling (SC)**

Module 5: Explore the Facts, Terms, and Concepts of Scheduling Project

- Introduction to Scheduling
- Types of Schedules
  - Time-Based Schedules
  - Tracker Schedules
  - Schedule Design
  - Building the Schedule
  - Critical Path Method
  - Critical Path Analysis (CPA) Inputs
  - Time Analysis
  - Types of Logic Linking
  - Floats

- Lags, Leads, and Constraints
- Duration Estimation Techniques
- Resources
- Integration
- Time Contingencies
- Communicating the Schedule
  - Bar Charts
  - Line of Balance
  - Time Change
  - Schedule Narrative
- Schedule Review

#### Module 6: Advantages and Disadvantages of Target Schedules

- Target Schedule
- Process of Resourcing the Schedule
- Resource Smoothing
- Scheduling Interfaces and Dependencies
  - Identification
  - Coding
  - Integration and Impact Analysis
  - Impact Resolution
- Scheduling Process
  - Steps in Establishing the Schedule
  - Once the Schedule is Created
- Checking the Schedule
  - Understanding the Project Schedule
  - Components of the Schedule Display
  - Critical Matters Not Included in Display
- Scheduling Checks
  - Activity and Logic Checks

- Float and Critical Path Checks
  - Resources Checks
  - Review of Schedule Risk
- Schedule Structure
  - Schedule Density
  - Detail Density: Considerations
  - Network Templates
- Schedule Types: Time-Based
- Displaying Networks on Bar Charts
- Elements of Schedule Design
- Creating a Critical Path Network
- Definition of Critical Path Method
- Purpose of Critical Path Network
- Methods of Constructing a Critical Path
- Inputs into a Critical Path Analysis
- Steps to Create a Network Analysis
  - Create a Logical Network
  - Forward Pass
  - Backward Pass
  - Calculation of Total Float
  - Identification of Critical Path
- Float
- Lags and Leads
- Use of Constraints
- Types of Logic Linking
- Different Approaches to Produce Duration Estimates for the Project
  - Three-Point Estimating
  - PERT (Programme Evaluation Review Technique)
  - Comparative

- Benchmarked Data
  - Resource Dependent and Expert Opinion
- Resourcing the Schedule
- Horizontal and Vertical Integration of Schedules
- Time Contingencies
- Bar Charts
- Line of Balance
- Time Chainage
- Schedule Narrative
- Definition of Schedule Review
- Purpose of Schedule Review
- Checking the Schedule
- Planning Checks
- Scheduling Checks

### **Monitor and Control (MC)**

#### Module 7: Understand Key Concepts Monitor and Control of a Project

- Baseline
  - Project Baseline
  - Baselining Principles
  - Baseline Maintenance
  - Re-Planning and Re-Programming
- Performance Reporting
  - Control Systems
  - Progress Assessment
  - Variance Analysis
  - Drop a Line Method
  - Activity Weeks Method
  - Milestone Monitoring
  - Cash Flow Monitoring

- Resource Monitoring
  - Network Analysis
  - Earned Value Analysis (EVA)
  - Basic Terminology
- Budget at Completion
- Planned Cost
- Earned Value
- Actual Cost
  - Budget Loaded Schedule
  - Budget Elements
  - Work Packages and Planning Packages
  - Setting the Baseline
  - Drawing 'S' Curves
  - Measuring Progress
  - Actual Costs
  - Variances and KPIs
  - Charting Variances
  - EVA and KPIs
  - Forecasting
  - Benefits of EVA
- Cost Control
- Short-Term Planning
  - Short-Term Planning Process
  - Make Ready Needs
  - Co-ordination Meetings
- Change Management
  - Change Control
  - Change Control Process
  - Change Orders

- Implementing Change
- Communicating Change
- Risk Management
  - Risk Management Plan
  - Risk Budget
  - Quantitative Schedule Risk Analysis (QSRA)
  - Quantitative Cost Risk Analysis (QCRA)
- Forensic Analysis
- Record Keeping

#### Module 8: Monitoring and Control of a Project

- Performance Analysis Methods of Progress Monitoring
- Definition of Risk Management
- Purpose of Risk Management
- Risk Response
- When Risks are Mitigated, Realised, and Closed?
- When Opportunities are Realised?
- Documenting Changes in the Risk Budget
- Project-Level Change: Process Overview
- Raising a Change Request
- Change Log
- Initial Evaluation of the Change Request
- Estimating Impact of Change
- Detailed Evaluation of Change Request
- Approved Request
- Implementing the Change
- Communicating the Change
- Monthly Change Reporting Requirements
- Distribution Types
- Application of Risks to Schedule Activities



- Purpose of QCRA and QCRA process
- Baseline
- Curves Showing Planned Value, Actual Cost and Earned Value
- Cost and Schedule Variance
- Cost and Schedule Variance Charts
- Bulls Eye Performance Charts
- Short-Term Planning Process
- Definition of Forensic Analysis
- Purpose of Forensic Analysis
- Methods of Forensic Analysis