Course Title: APMG Project Planning & Control™ Foundation & Practitioner	**Course Duration**: 5.0 Days
Exam: Included	**Exam Type**: Classroom Exam
Qualification: APMG Project Planning & Control™ Foundation & Practitioner Certificates	

Course Syllabus

Our APMG Project Planning & Control™ Combined Foundation & Practitioner training course will cover the following syllabus areas:

DEFINITION (DE)

Delegates are introduced to the world of projects with an emphasis on planning, monitoring and control.

Foundation

- Key definitions and concepts associated with Planning and Control
- Hierarchical Breakdown Structures - WBS, OBS, CBS, RBS
- Purpose of the Business Case
- Purpose of Scope Management, Requirements Management and Stakeholder Management
- Purpose and composition of the Works Information and Statement of Work

Practitioner

- Factors to consider to ensure the WI and SOW are fit for purpose
- Key elements needed for effective project planning
- The need for effective stakeholder management

PLANNING (PL)

The following areas will be discussed:

Foundation

- Facts, terms and concepts for: Planning, handover and closeout
- Purpose and benefits of successful planning
- Differences between Planning and Scheduling; Funding and Budgets
- Planning approaches and influencing factors for: top-down, bottom-up and rolling wave planning
- Purpose, characteristics and relationship and use of Breakdown Structures
- Approaches and principles of designing Breakdown Structures
- Purpose of the Work Package, WBS Dictionary and RACI Matrix
- Purpose of Dependency Management, cost estimating, budgeting and budget transfers

Practitioner

- Determine activities, outputs and roles involved in the development and maintenance of the plans required throughout the life of the project

- Determine when top-down, bottom-up and rolling-wave approaches to planning should be adopted and the outputs of each
- Interpret 'S' curves and identify planning strategies to work out how best to deliver the project
- Identify appropriate project information for inclusion in the project's Product Breakdown Structure (PBS) and apply the guidance to its creation
- Identify appropriate project information for inclusion in the project's Work Breakdown Structure (WBS) and apply the guidance to its creation
- Identify appropriate project information for inclusion in the project's WBS Dictionary and apply the guidance to its creation
- Identify appropriate project information for inclusion in the project's Organisational Breakdown Structure (OBS) and apply the guidance to its creation
- Identify appropriate project information for inclusion in the project's Responsibility Assignment Matrix (RAM) and RACI Matrix and apply the guidance to their creation
- Identify appropriate project information for inclusion in the project's Cost Breakdown Structure (CBS) and Resource Breakdown Structure (RBS) and apply the guidance to their creation
- Identify the project interfaces that need to be monitored and controlled during the life of the project, together with their scope
- Determine the appropriate approaches for producing project estimates
- Whether specific activities associated with the development and maintenance of the plans required throughout the life of the project have been applied appropriately, with reasons
- Whether a chosen delivery strategy for the project is appropriate, with reasons
- Whether a chosen planning strategy for the project is likely to be effective, with reasons
- Whether the project's Product Breakdown Structure (PBS) is fit for purpose, with reasons
- Whether the project's Work Breakdown Structure (WBS) is fit for purpose, with reasons
- Whether the project's WBS Dictionary is fit for purpose, with reasons
- Whether the project's Organisational Breakdown Structure (OBS) is fit for purpose, with reasons
- Whether the project's Cost Breakdown Structure (CBS) and Resource Breakdown Structure (RBS) are fit for purpose, with reasons
- Whether the project interfaces that need to be monitored and
- Whether selected estimate techniques/methodologies for the project are appropriate, with reasons
- Whether the use of activities associated with the handover and closeout of the project are likely to be appropriate, with reasons

SCHEDULING (SC)

The following areas will be discussed:

Foundation

- The definition and elements of scheduling
- Definition of key network analysis terms, including:

1. Critical path
2. Time analysis
3. Free float
4. Total float
5. Negative float
6. Lead
7. Lag
8. Time contingency
9. Buffer

- The three identified methods of presenting the results of scheduling
- Purpose of:

1. Scheduling, and the outputs created
2. Network templates (Fragnets)
3. 'What Ifs' (Scenario Planning)
4. Schedule design
5. Critical path network
6. Time analysis

- Typical features associated with schedule density, together with:

1. Relationships between the different densities of schedules on a typical project
2. Schedule detail density considerations and principles

- Purpose of different types of time phased schedules, including
- Development or strategic schedule -

1. Including 'typical contents'
2. Tender or 'Bid' schedule - plus 'typical contents'
3. Contract schedule
4. Baseline schedule
5. Summary schedule
6. Working or 'Forecast' schedule - plus 'typical contents'
7. Short and medium-term schedule
8. Procurement schedules
9. Design deliverables tracker

- Purpose and use of key elements of schedule design, including:

1. Hammock
2. Dummy tasks
3. Milestones
4. Identity numbers
5. Activity descriptions
6. Activity types
7. Activity steps
8. Time units
9. Calendars
10. Ordinal dates
11. Project, activity and resource coding

- Key features of the Precedence Diagram Method (PDM) for determining a critical path and the inputs into a Critical Path Analysis (CPA)
- Purpose and use of:

1. Monitoring float
2. Different methods of logic linking
3. Leads and lags
4. Activity constraints
5. Barcharts to display networks

- Use and features of different methods of estimating durations, including:

1. Three point estimates
2. PERT (Programme Evaluation Review Technique)

3. Comparative
4. Benchmark data
5. Resource-dependent
6. Expert opinion

- Types of resources and the purpose of resourcing the schedule
- Purpose and use of:

1. Horizontal and vertical integration of schedules
2. Buffers (incl. advantages and limitations)

- Purpose and features of the methods for presenting the results of scheduling:

1. Bar Charts (Gantt Charts)
2. Milestone reporting
3. Line of Balance
4. Time Chainage

- Together with their advantages and limitations
- Typical composition of a Schedule Narrative
- Purpose and scope of Schedule Reviews
- Steps in the scheduling process and steps to prepare for monitoring and control
- The five steps necessary to construct a network, together with the activities of each

Practitioner

- Advantages and disadvantages of Target Schedules
- Steps in the process of resourcing the schedule
- Need to manage project interfaces and the activities necessary to implement the four key stages of dependency management:

1. Identification
2. Coding
3. Integration and impact analysis (incl. internal and external integration)
4. Impact resolution

- Identify and apply the activities involved in the development and maintenance of the project schedule
- Identify the types and required densities (levels) of the schedule(s) required by the project and the types of information that may be included in those schedules
- Determine which elements of schedule design should be included in the project schedule a how they should be used

MONITOR AND CONTROL (MC)

The following areas will be discussed:

Foundation

- Definition of Earned Value Analysis (EVA) and its basic terminology

1. Budget at Completion - BAC
2. Planned Cost - PV
3. Earned Value - EV
4. Actual Cost - AC

- Definitions of key monitoring terms:

1. Project baseline
2. Short-term planning
3. Cost control
4. Forensic Analysis
5. Record keeping

- Definitions of key risk management terms:

1. Risk Management Plan
2. Residual Risk
3. Risk Draw Down
4. Quantitative Schedule Risk Analysis (QSRA)
5. Quantitative Cost Risk Analysis (QCRA)
6. Sensitivity Analysis

- Definitions of key change management terms:

1. Change Management together with the two levels of change to scope or delivery method
2. Changes
3. Change Order

- Purpose and use of a project baseline together with:

1. Principles of project baselining
2. When to set the baseline
3. Links with change management
4. Cost Control
5. Cost Value Report

- Purpose and use of:

1. Baseline maintenance
2. Change management

- Together with the principles of change management and why change control is needed
- Differences between and possible reasons for rebaselining:

1. Re-planning of the project
2. Re-programming of the project

- Purpose and use of performance reporting and features of a good control system
- Characteristics of Variance Analysis Methods of Progress Monitoring:

1. Drop line method
2. Activity weeks method
3. Milestone monitoring
4. Cash Flow monitoring
5. Resource monitoring

- Including the advantages and limitations of each method
- Characteristics of Performance Analysis Methods of Progress
- Monitoring, specifically the use of Network Analysis and measurement of float usage
- Elements of a budget for monitoring with Earned Value and their characteristics:

1. Work Packages
2. Planning Packages
3. Management Reserve and Contingency
4. Risk Mitigations

- Together with how to deal with inflation
- Elements of the Earned Value cost control process:

1. Performance Measurement Baseline (PMB)
2. Estimate to Complete (ETC)
3. Estimated Final Cost (EFC)

- Together with the importance of learning lessons from cost control
- The purpose of Short-term Planning, its four key elements, and how it should be linked to project schedules
- Short-term Planning considerations:

1. 'Make ready needs'
2. Use of co-ordination meetings and performance reporting

- Elements of a project level change control process and its links with corporate governance:

1. Steps
2. Key Activities
3. Decisions

- Purpose of Earned Value Analysis, together with key elements of the technique:

1. Appropriate uses
2. Advantages and disadvantages
3. Budget loading the schedule
4. Drawing S curves
5. Measuring Progress to Calculate Earned Value
6. Recording actual costs
7. Calculation of Variances and KPIs
8. Forecasting terminology

Practitioner

- The use of Earned Value Techniques (EVT) and the advantages/limitations of Earned Value Analysis
- Outputs of a project level change control process including the information required (incl. Change Requests, Change Log, Change
- Orders and Change Reporting Requirements)
- Purpose of Risk Management together with the ways of drawing down risk budget
- Purpose and key elements of Quantitative Schedule Risk Analysis (QSRA), together with:

1. Its reliance on Monte Carlo analysis
2. The two elements of QSRA
3. Process - stages and their characteristics
4. Outputs (Probability Charts and Tornado Charts)

- Purpose and steps of Monte Carlo analysis, including distribution types
- Purpose and key elements of Quantitative Cost Risk Analysis (QCRA), together with:

1. Process - stages and their characteristics
2. Outputs (Cumulative Normal Distributions (S-curves) for cost impacts, Sensitivity (Tornado) Charts and QSRA Percentiles)
3. Use of Sensitivity Analysis

- Purpose and methods of Forensic Analysis:

1. As-Planned vs. As-Built Method (AP v AB)
2. Impacted As-Planned Method (IAP)
3. Collapsed As-built Method (CAB) or AS-built But For (ABBF)
4. Time Impact Analysis Method (TIA)

- Requirements, Advantages, Disadvantages and where it can be used together with other relevant considerations
- Be able to apply key concepts relating to the Monitoring and Control of a project within a given scenario. Specifically to identify and apply activities involved in the development and maintenance of the project baseline, together with the application of the rules
- Determine the most appropriate methods of reporting the performance of the project and what project information should be included in the performance reports produced
- Interpret the outputs of methods of reporting performance:

1. Drop line method
2. Activity Weeks method
3. Milestone monitoring
4. Cash Flow monitoring
5. Resource monitoring
6. Network Analysis and measurement of float usage

- Interpret:

1. Curves showing Planned Value, Actual Cost and Earned Value, Cost and Schedule Variance
2. Cost and Schedule Variance Charts
3. Bulls Eye Performance Charts

- In order to determine the status of the project and identify the likely causes of the reported performance
- Perform Earned Value calculations and determine the status of the project and identify the likely causes of the reported performance:

1. Cost Variance (CV)
2. Schedule Variance (SV)
3. Schedule Performance Index (SPI) Cost Performance Index (CPI)

- Use Earned Value data to produce project forecasts:

1. Estimate At Completion (EAC)
2. Estimate To Complete (ETC) Estimate Time To Complete (ETTC)

- Determine the most appropriate Earned Value Technique (EVT) for application during the project
- Identify and apply activities involved in the application of an appropriate short-term planning process for the project
- Identify appropriate use and information for inclusion in the following:

1. Change Request
2. Change Log
3. Monthly Change Report

- Identify activities involved in the application of an appropriate change control process for the project

- Risk Assessment, the use of the Risk Assessment Matrix, Risk Log and the planning and controlling of the funds for managing risk
- Interpret the results of the project's Quantitative Schedule Risk Analysis (QSRA) as displayed on:

1. Probability Charts
2. Tornado Chart
3. Quantitative Schedule Risk Analysis (QSRA) Chart Duration Uncertainty Tornado Chart

- Purpose and steps of Monte Carlo analysis, including distribution types
- Interpret the results of the project's Quantitative Cost Risk Analysis (QCRA) and Cost Impact Severity Tornado Chart
- Identify and apply methods Forensic Analysis and Delay and Disruption Analysis
- Be able to identify, analyse and distinguish between the appropriate and inappropriate use of key concepts relating to the Monitoring and Control of a project within a given project scenario. Specifically to analyse:

1. Whether specific activities undertaken to establish and maintain a Project Baseline are appropriate, with reasons
2. Whether Performance Reports are fit for purpose, with reasons

- Whether methods of reporting the project's performance are applied appropriately and whether their outputs are fit for purpose, with reasons:

1. Drop line method
2. Activity Weeks method
3. Milestone monitoring
4. Cash Flow monitoring
5. Resource monitoring
6. Network Analysis and measurement of float usage

- Whether Earned Value information has been interpreted correctly: to determine the status of the project and the likely causes of the reported performance
- Whether Earned Value calculations have been performed and interpreted correctly to determine the status of the project and identify the likely causes of the reported performance
- Whether Earned Value data has been used appropriately to produce project forecasts
- Whether the application of Earned Value Techniques (EVTs) to the project is appropriate, with reasons
- Whether the use of specific activities undertaken during short-term, high density scheduling are appropriate, with reasons
- Whether the following are fit for purpose, with reasons:

1. Change Request
2. Change Log
3. Monthly Change Report

- Whether the use of specific Change Management activities are appropriate, with reasons
- Whether the Risk Assessment, the use of the Risk Assessment Matrix, Risk Log and planning and controlling of the funds for managing risk are appropriate, with reasons
- Whether the results of Quantitative Schedule Risk Analysis (QSRA) as displayed on:

1. Probability Charts
2. Tornado Chart
3. Quantitative Schedule Risk Analysis (QSRA) Chart
4. Duration Uncertainty Tornado Chart are appropriate and accurate.

- Purpose and steps of Monte Carlo analysis, including distribution
- Interpret the results of the project's Quantitative Cost Risk Analysis (QCRA) and the Cost Impact Severity Tornado Chart
- Identify and apply methods Forensic Analysis and Delay and Disruption Analysis

Course Overview

Our five-day APMG Project Planning & Control™ Combined Foundation & Practitioner training course will teach you how to implement effective planning, monitoring and control for increased chances of project success.

Our APMG Project Planning & Control™ Combined Foundation & Practitioner training course is for professionals who specialise in planning and scheduling of projects. It provides best practice practical guidance on budget, time and quality activities to planning and providing the necessary monitoring and input to enable the control and execution of the project.

Course Learning Outcomes

What Will You Learn?

- The approaches and application of products used to gain a clear definition of a project
- The approaches and application of techniques used to plan and close a project
- The selection and application of appropriate scheduling techniques
- The practices used and applied for rigorous monitoring to enable proactive control of the project
- The basis for and application of good record keeping, which also facilitates the virtuous feedback and learning cycle.

Audience

Our APMG Project Planning & Control™ Combined Foundation & Practitioner training course is suitable for the following roles:

- Planning Managers & Engineers
- Project Control Managers & Engineers
- Cost Engineers
- Project Managers

Entry-Level Requirements

No prerequisites are necessary for attendance, although you would benefit from some experience and understanding of basic planning principles and terminology.

Recommended Reading

Our APMG Project Planning & Control™ Combined Foundation & Practitioner training course uses unique multimedia case-studies and accelerated-learning techniques to ensure that theory is embedded and you feel confident in the practical application of learning points. Additional evening work will be required in the form of consolidation reading and mock examination questions. The evening work is an integral part of the course and you should expect to spend approximately two hours on these activities each evening. The evening work is aimed at helping effective preparation for the examinations.

What's Included

All relevant course materials are provided, which includes the APM Planning, Scheduling, Monitoring and Control Manual and the APMG Project Planning & Control™ Foundation and Practitioner examinations.

Exam Information

APMG Project Planning & Control™ Foundation Exam

- **Exam Format:** Multiple Choice
- **Exam Delivery:** Closed Book
- **Exam Duration:** 40 Minutes
- **Number Of Questions:** 50
- **Passing Score:** 50%

APMG Project Planning & Control™ Practitioner Exam

- **Exam Delivery:** Open Book (APM Planning, Scheduling, Monitoring & Control Book Permitted)
- **Exam Duration:** 3 Hours
- **Number Of Questions:** 80
- **Passing Score:** 50%

What's Next

ITIL® is used by millions of professionals globally. Businesses are built on the ITIL® framework. Every year, organizations all over the world invest heavily in adopting and adapting the ITIL® 4 Foundation into their business practices and up-skilling their staff with ITIL® 4 qualifications.

You might be interested in our three-day ITIL® 4 Foundation training course will enable you to understand a new way to look at IT Service Management (ITSM) through a Service Value System (SVS).

Additional Information

Effective planning and control requires an understanding of a clear project definition, supported by a robust approach to planning the project. This, in turn requires the selection and use of appropriate scheduling techniques which are supported by rigorous monitoring for effective proactive control. A sound basis for effective record keeping will facilitate the understanding of lessons learned which supports continuous improvement, thus adding value to organisational aspirations and objectives. As a practitioner, you will demonstrate your ability to interpret and apply the Foundation topics to various project scenarios.