



# Earned Value and Project Controls

## Mentored Email™ Course Contents

### Module 1: EV & Controls Overview

#### Course objectives

##### An overview of Earned Value Management & Controls

- The Key Requirements, WBS, Schedule and cost estimates
- Work packages
- The foundation, a time-phased budget

##### Implementing earned value management (ISO 21508)

- Decompose the Project Scope
- Assign Responsibility
- Schedule the Work
- Develop a Time-Phased Budget
- Assign Objective Measures of Performance
- Set the Performance Measurement Baseline (PMB)
- Authorise and Perform the Work
- Accumulate & Report Performance Data
- Analyse Project Performance Data
- Take Management Action
- Maintain the Baseline

#### The Origins of EVM

### Module 2: Getting the Scope and Schedule Right

#### Define the overall project Scope

- Client, Head contractor, Subcontractors & Suppliers

#### The concept of a WBS

- Decomposition
- WBS Terminology
- Building a great WBS
- 100% Rule
- Undistributed Budget
- Contingencies
- The WBS dictionary



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### **Layering EV and control**

#### **WBS Standards**

- ISO 21511:2018 Work Breakdown Structures)
- PMI *Practice Standard for Work Breakdown Structures*

#### **Integrating the WBS, cost and schedule**

- Integrating the WBS
- Integrating cost and schedule

#### **Other project breakdown structures**

#### **The concepts of a 'good schedule'**

- Define activities
- Sequence Activities
- Estimate Activity Durations
- Develop & Optimise Schedule
- Maintaining the Schedule
- Scheduling Resources
- GAO Schedule Assessment Guide: Best Practices for Project Schedules)
- Vertical and horizontal traceability in schedules
- Schedule Density / Rolling Wave

#### **Linking to the WBS**

## **Module 3: EV Concepts**

#### **Developing a Time Phased Budget**

- Time phasing work packages
- Assigning Costs

#### **Definition of key elements**

- PV, AC, EV & BAC

#### **Definition of key formula**

- CV, CPI, SV, SPI, EAC & ETC

#### **Measuring progress - Assigning objective measures of performance**

- Payment Milestones
- Volume / count / measurement
- Percent Complete
- Apportioned Effort
- Level of Effort

#### **Setting the performance management baseline**



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- Developing the Performance Management Baseline (PMB)
- Scope / Time / Cost / Quality

### **Understanding EVM Reports**

- Standard report formats

## **Module 4: Managing the Project, Trend Indicators & ES**

### **Assigning responsibility**

- Control Accounts and CAMs
- Work packages
- Planning packages

### **Managing the work**

- Authorising and performing the work
- Taking management action to work the plan
- Variance analysis, trends and management
- Maintaining the performance baseline

### **Accumulating and reporting project cost and performance data**

- Adjusting actual cost data to align with performance measures
- Types of cash flow

### **Analysing the performance data**

- Performance at 'Time Now'
- Projections 'At Completion'
- Understanding and interpreting EV data

### **TCPI and Trends**

- Mathematics of losing

### **Earned Schedule**

- Extending EV to include Earned Schedule
- More management information from the same data

### **Project surveillance techniques**

- Games people play
- Encouraging bad news!
- What to look for

## **Module 5: Managing Risk, Standards, Governance and Tools**



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### **Dealing with uncertainty and variability**

- Variability in estimates and performance
- Risks and risk management
- Unknown-Unknowns, Black Swans and resilience

### **Monte Carlo calculations and their use**

### **Contingencies & Management Reserves**

- Creating and using contingencies
- The role of management reserves
- Reference class risks

### **Interfacing Risk and Earned Value Management**

- UK practice guide on '*Interfacing risk and earned value management*'

### **Useful EV Standards and Guides**

- GAO Cost Guide
- AS 4817
- ISO 21508
- Other resources

### **Setting the right governance framework**

- Functions of governance
- Role of controls

### **EV Software and tools**

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[https://mosaicprojects.com.au/Training-EVM-Mentored\\_Email.php](https://mosaicprojects.com.au/Training-EVM-Mentored_Email.php)