

# Course Description



## Course Title

Advanced Scheduling and Risk Management - Online

## Overview

Project scheduling is a key function of the project controls. Getting this right means that our projects are more likely to deliver on time. Risk management is also a critical part of the discipline, and interfacing the two elements facilitates more robust, adaptable and reliable schedules, and increases confidence that they can be delivered.

This course will expand and deepen your existing planning skills and enable you to use risk management tools to ensure better project outcomes.

## What You Will Learn from This Course:

- Select the best scheduling approaches for your project
- Optimise schedule design
- Analyse variances and trends for better control
- How to accelerate or “crash” a schedule
- Understand schedule quality control, assurance and audit
- Learn about critical chain, agile and other alternatives to traditional scheduling methods
- Develop robust schedules to recover failing projects
- Identify, analyse and quantify schedule risks, including use of QSRA
- Select the best schedule risk responses

## Why Should You Attend this Course?

Too often, we see a project that over runs its schedule. However, it doesn't have to be this way. Starting with the design of the schedule, we can use tried and tested methods that not only produce more reliable estimates, but also enable us to keep the project on track once underway. Using these as a base, we can apply techniques that provide a realistic and proportionate contingency for risk. These methods include use of Quantitative Schedule Risk Analysis (QRSRA) techniques, which allow us to identify, prioritise and estimate our schedule risks, and also plan appropriate responses once we are in the execution phase. We can also control the change that inevitably occurs in projects, ensuring that it is appropriately recognised, and then covered in re-estimates and baseline changes. Risk management and earned value management are two powerful tools used in managing projects, and we can integrate them for even greater effect.

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Should the need arise, we can accelerate project progress, and know the upsides and downsides of doing so. And should we need to recover a failing project, we can develop reliable schedules to ensure we don't fail twice over. Finally, schedule information is often mis understood because it is not well communicated. We will learn how to get our information across so that it can be used effectively by all project stakeholders. Finally, we can all learn lessons from our projects, passing on both the good and the bad experiences so that future projects can deliver better results. This workshop will deal with all of these aspects and more, giving participants insights and tools to deal with them all.

This course will build upon delegates' existing knowledge and experience to provide the tools and techniques to deal with all aspects of scheduling a wide range of projects, whilst taking proper account of project risk. In doing so, not will our projects be more likely to deliver on time, but the business benefits resulting from the project are more likely to be realised in full, to the benefit of all stakeholders.

## **Who Should Attend This Course?**

- Project Managers
- Project Controls Managers
- Project Controls Team Members
- Project Planners & Schedulers
- Risk Management Staff
- Project Management Office Staff
- Project Team Members
- Cost Controllers & Engineers
- Project Sponsors
- Project Consultants
- Project Specialists

## **Outcome of this Course**

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

- Produce more reliable estimates
- Control schedule progress effectively
- Identify schedule contingency needs
- Interface risk management with earned value methods
- Optimise communication, reporting and forecasting
- Improve baseline setting, maintenance and change management
- Use lessons from previous projects to improve future projects' controls

## **Course Length**

16 hours (4 modules of 4 hours each)

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## Course Content

An interactive mix of lecture, case studies, group discussion and activities will be used to illustrate and apply the methods, tools and techniques of project control. The following topics will be covered:

### **Part 1 – Advanced Scheduling**

#### Recap of the Controls Process

- Definition phase
- Planning phase
- Scheduling phase
- Monitoring and control phase

#### Definition Phase

- Project familiarisation and key documents
- Project scope and requirements (including contractual requirements)
- Stakeholders

#### Planning Phase

- Planning options and choosing the right approach
- Resourcing the planning team
- Budgeting and cost estimating
- Project breakdown structures
- Dependencies
- Setting up for earned value
- Health, safety and environmental considerations

#### Scheduling Phase

- Schedule options
- Schedule design
- Schedule construction
- Resource levelling and smoothing
- Communicating and reporting schedule information
- Reviewing the schedule and performing quality checks
- Baselining

#### Control & Monitoring Phase

- Reporting and forecasting
- Variances and trends
- Controlling cost and progress

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- Resource management
- Acceleration or “crashing”
- Earned value
- Baseline maintenance and managing change
- Managing schedule risk “in flight”

## Record Keeping & Learning

- Keeping records and document management
- Handover & closeout phase
- Learning lessons

## Miscellaneous

- Computer Planning Systems
- Governance, assurance and audit of controls
- Project recovery Schedules

## **Part 2 – Risk Management**

### Review of Risk Management Principles

- Benefits and issues of risk management
- Risk management process
- Human factors in risk management

### Tools and techniques

- Risk identification tools
- Risk assessment tools – qualitative and quantitative
- Risk response techniques

## **Part 3 – Interfacing Scheduling and Risk**

- Quantitative Schedule Risk Analysis (QSRA)
- Inter-relation to risk register
- Risk draw down
- Risk and earned value management
- Identifying & estimating schedule risks
- Responding to schedule risks
- Responding to contract schedule risks
- Contingency planning

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## **Part 4 – Other**

- Critical chain
- Scheduling for “Agile” project management
- Alternatives to CPM scheduling
- Summary
- Things you can do next
- Reference material