

# Implementing Effective Preventive and Predictive Maintenance Programmes

## Venue Information

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**Venue:** London UK

**Place:**

**Start Date:** 2025-07-14

**End Date:** 2025-07-18

## Course Details

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**Net Fee:** £4750.00

**Duration:** 1 week

**Category ID:** METC

**Course Code:** METC-17

## Syllabus

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### courses Syllabus

#### Introduction

Effective Planned & Predictive Maintenance are indispensable for a thriving company and are integral to maintenance management strategies like RCM, RBM TPM, and even 6-Sigma. This comprehensive 5-day program is designed to benefit both qualified new professionals and experienced professionals involved in implementing or auditing maintenance systems. It covers all steps required in developing successful Planning & Predictive Maintenance programs from system development to operational implementation.

#### Objectives

Leading industrial organizations are transitioning from reactive ("fix-it-when-it-breaks") management to predictive, proactive management ("anticipating, planning, and fixing-it-before-it-breaks"). This evolution necessitates well-

- Implement a practical and effective predictive maintenance effort
- Improve consistency and reliability of asset information
- Achieve more productive turnarounds
- Optimize preventive and predictive maintenance strategies

## **The Contents**

### **Day 1 – The Need for Maintenance**

- Failure Mode Effect & Criticality Analysis (FMECA)
- Causes of Failures
- Likelihood & Severity of Failure – Risk Analysis
- Reliability Centred Maintenance (RCM)
- Optimization of Maintenance Decisions
- Failure Pattern Identification
- Statistical Analysis of Failures
- Weibull Analysis
- Zero Base Budgeting
- Define the production requirement
- Define the maintenance requirement

### **Day 2 – Developing the CMMS**

- Database Construction
- Installed Asset Base
- Hierarchical Structure
- Procedures and Plans
- Resources
- Dedicated Manpower
- Contractors
- Specialist Tools
- Maintenance Strategies
- Centralised/Decentralised
- Life/Emergency/Corrective/Planned
- Planned & Predictive

### **Day 3 – The Planning Function**

- Roles & Responsibilities
- The Planners

- Planning Corrective Work
- Integrate Planning with Procedures
- Resource Levelling
- Scheduling
- Long Term Scheduling with Production
- Medium & Short Term Scheduling
- Planning Department Interfaces

#### **Day 4 – Predictive Maintenance**

- Potential Failure Analysis (PFA)
- Integration of PFA with FMECA & RCM
- Understanding the P-F Interval
- Decide which Technologies to Apply
- Vibration Analysis
- Detectable Faults
- Setup Parameters
- Monitoring & Protection
- On-Line or Off-Line
- Supporting Technologies
- Infrared Thermography
- Passive Ultrasonics
- Oil Analysis

#### **Day 5 – Control of the Maintenance Process**

- CMMS Integration
- Predictive Maintenance Interface
- Optimising PM Kit Usage with PdM
- Operational planning
- Reporting
- Monthly PM & PdM reports for Management
- Financial Feedback Reports
- Budget Control
- Key Performance Indicators
- Reliability & statistics – MTBF, Reliability etc.
- Work request backlog analysis
- Customer feedback analysis