



*Maintenance & Reliability Professional Development
Program (CMRP-Aligned)*

Barcelona (Spain) -

28-09-2026

Maintenance & Reliability Professional Development Program (CMRP-Aligned)

Course code: PQ456 From: 28-09-2026 Venue: Barcelona (Spain) - Course Fees: 5000 £

Introduction

The Maintenance & Reliability Professional Development Program (CMRP-Aligned) is a five-day training program designed to provide participants with a practical understanding of modern maintenance and reliability principles. The program focuses on effective maintenance strategies, reliability improvement, asset performance, maintenance planning, and performance measurement.

The course is aligned with key concepts within the CMRP framework and is intended to enhance participants' professional knowledge and practical capabilities in maintenance and reliability management.

Note: This is a professional development training program and does not itself provide CMRP certification or professional accreditation.

Course Objectives

By the end of the course, participants will be able to:

- Understand key maintenance and reliability principles.
- Develop effective maintenance and reliability strategies.
- Apply reliability and failure analysis techniques.
- Improve maintenance planning and work management.
- Measure and improve maintenance performance.
- Apply preventive, predictive, and condition-based maintenance approaches.
- Support asset performance and reliability improvement initiatives.
- Develop practical maintenance and reliability improvement plans.

Target Audience

- Maintenance Managers and Supervisors
- Reliability Engineers
- Maintenance Engineers
- Asset Management Professionals
- Maintenance Planners and Coordinators

- Operations and Production Managers
- Engineering and Technical Professionals
- Professionals preparing for the CMRP examination

Course Outline

Day 1

Maintenance & Reliability Fundamentals

- Introduction to Maintenance and Reliability Management
- Maintenance Strategies and Best Practices
- Asset Management and Criticality
- Maintenance & Reliability Strategy Development

Day 2

Reliability Engineering & Failure Analysis

- Reliability, Availability and Maintainability
- Failure Modes and Failure Analysis
- FMEA/FMECA
- Root Cause Analysis (RCA)

Day 3

Maintenance Strategies & Work Management

- Preventive, Predictive and Condition-Based Maintenance
- Reliability-Centered Maintenance (RCM)
- Maintenance Planning and Scheduling
- Work Management and Backlog Control

Day 4

Performance Management & Optimization

- Maintenance & Reliability KPIs

- Equipment Performance and Availability
- Maintenance Cost and Resource Optimization
- Spare Parts and Asset Performance Management

Day 5

Reliability Excellence & CMRP-Aligned Review

- Reliability Improvement and Continuous Improvement
- Reliability Culture and Leadership
- Developing a Maintenance & Reliability Improvement Strategy
- CMRP-Aligned Knowledge Review and Practical Exercises