

# MAINTENANCE & INTEGRITY MANAGEMENT, DATA AND SYSTEMS IMPLEMENTATION

*"Enhancing Asset Reliability Through Integrated Systems, Data-Driven Planning, and Lifecycle Integrity Management"*

## Schedule

| Date             | Venue            | Fees (Face-to-Face)   |
|------------------|------------------|-----------------------|
| 06 - 10 Apr 2026 | Istanbul, Turkey | USD 3495 per delegate |

► Available delivery methods: Face-to-Face & Online Training

## Introduction

Effective maintenance and integrity management are essential to maximizing asset uptime, ensuring safety, and reducing lifecycle costs in industrial operations. In an increasingly data-driven environment, organizations must align technical strategies, digital systems, and performance data to proactively manage asset health and integrity.

This course provides an integrated approach to maintenance and integrity management, emphasizing data governance, systems implementation (CMMS/EAM), risk-based methodologies, and performance optimization. Participants will gain practical skills in designing, executing, and improving maintenance and integrity programs using modern tools, KPIs, and industry standards.

## Objectives

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

- Develop and implement a structured maintenance and integrity management system
- Integrate CMMS/EAM data with risk-based maintenance strategies
- Apply data analytics and performance indicators for maintenance optimization
- Ensure regulatory compliance and safety through integrity management programs
- Improve decision-making across asset lifecycle using reliable data systems

## Why Attend

- Strengthen alignment between maintenance, reliability, and asset integrity teams
- Leverage data and digital systems to reduce unplanned downtime and failures
- Enhance safety, compliance, and asset lifecycle planning
- Streamline inspection and maintenance activities using risk-based tools
- Bridge technical execution with digital transformation in asset management

## Target Audience

This program is designed for:

- Maintenance and reliability engineers
- Asset integrity and inspection professionals
- CMMS/EAM system users and analysts
- Plant engineers, maintenance planners, and operations supervisors
- Asset managers and maintenance system consultants

## Individual Benefits

Key competencies that will be developed include:

- Design and execution of maintenance and integrity management plans
- Use of KPIs and dashboards to monitor and improve asset performance
- Integration of inspection, failure data, and work management into digital platforms
- Implementation of RBI, RCM, and FMEA strategies
- System thinking and digital competency in industrial asset environments

## Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved maintenance and inspection efficiency through systems integration
- Reduced downtime and extended asset life through optimized planning
- Better regulatory compliance and risk management
- Enhanced workforce productivity through digital tools and performance visibility
- Organizational readiness for Industry 4.0 and asset digitalization

## Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings - Reliability and integrity frameworks (ISO 55000, API 580, PAS 55)
- Case Studies - Implementation of CMMS, asset integrity failures, and turnarounds
- Workshops - Maintenance strategy development, KPI dashboards, and FMEA
- Peer Exchange - Sector-specific challenges in maintenance and data management
- Tools - Maintenance matrix templates, audit checklists, asset hierarchy models

## Course Outline

**Training Hours: 7:30 AM - 3:30 PM** Daily Format: 3-4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 - 02:00

### Day 1: Asset Integrity and Maintenance Management Frameworks

- Module 1: Principles of Asset Integrity and Maintenance (07:30 - 09:30) • Definitions, lifecycle context, and core functions
- Module 2: Standards and Regulatory Compliance (09:45 - 11:15) • ISO 55000, PAS 55, API, OSHA, and local standards
- Module 3: Maintenance Strategy Hierarchy and Classification (11:30 - 01:00) • Corrective, preventive, predictive, risk-based approaches
- Module 4: Workshop - Asset Strategy Mapping (02:00 - 03:30) • Map maintenance and integrity strategy to asset classes

### Day 2: CMMS/EAM Systems and Data Governance

- Module 1: Digital Systems for Maintenance Management (07:30 - 09:30) • Overview of CMMS/EAM functionality (SAP, Maximo, Infor)
- Module 2: Asset Register and Master Data Structure (09:45 - 11:15) • Hierarchy development, criticality classification
- Module 3: Work Order Management and Scheduling (11:30 - 01:00) • Preventive maintenance, backlog management, PM optimization
- Module 4: Workshop - CMMS Configuration Simulation (02:00 - 03:30) • Build a sample asset register and maintenance plan

### Day 3: Integrity Management Systems and Risk-Based Tools

- Module 1: Introduction to Integrity Management Programs (07:30 - 09:30) • Inspection planning, degradation mechanisms, documentation
- Module 2: Risk-Based Inspection (RBI) and RCM Basics (09:45 - 11:15) • API 580/581, failure modes, criticality grids
- Module 3: Integration of Inspection and Maintenance Data (11:30 - 01:00) • Aligning integrity data with CMMS workflows
- Module 4: Workshop - RBI Planning Exercise (02:00 - 03:30) • Develop a sample risk-based inspection matrix

### Day 4: Performance Monitoring and Optimization

- Module 1: Maintenance & Integrity KPIs (07:30 - 09:30) • MTBF, MTTR, schedule compliance, OEE
- Module 2: Dashboards, Reporting, and Continuous Improvement (09:45 - 11:15) • Digital reporting tools, BI integration, performance alerts
- Module 3: Failure Data and Root Cause Analysis (11:30 - 01:00) • RCFA, FMEA, bad actor elimination
- Module 4: Workshop - KPI Dashboard Design (02:00 - 03:30) • Design a performance tracking dashboard for reliability teams

### Day 5: Implementation Planning and Future Readiness

- Module 1: Implementation Roadmaps for Maintenance Systems (07:30 - 09:30) • System deployment, training, change management
- Module 2: Integration with Digital Twins and IIoT (09:45 - 11:15) • Enabling condition-based maintenance and real-time analytics
- Module 3: Final Project - Maintenance Program Audit & Redesign (11:30 - 01:00) • Assess and improve an existing maintenance system
- Module 4: Wrap-Up and Certification (02:00 - 03:30) • Course summary, feedback, and certificate distribution

## Certification

Participants will receive a Certificate of Completion in Maintenance & Integrity Management, Data and Systems Implementation, confirming their capability to lead integrated asset reliability programs using digital systems, performance metrics, and risk-based strategies.

## Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

|  |   |   |
|--|---|---|
| <p><b>In-House / Customized Training</b></p> <p>Interested in running this course for your team?</p> <p>Please contact us:</p> | <p>TEL:</p> <p><b>+601116373203</b></p> | <p>EMAIL:</p> <p><b>info@mawaevents.net</b></p> |
|--|---|---|

© Material published by MAWA Events shown here is copyrighted. All rights reserved. Any unauthorized copying, distribution, use, dissemination, downloading, storing (in any medium), transmission, reproduction or reliance in whole or any part of this course outline is prohibited and will constitute an infringement of copyright.