

TOTAL PLANT MAINTENANCE

“Maximizing Plant Availability and Asset Efficiency through an Integrated Maintenance Strategy”

Schedule

Date	Venue	Fees (Face-to-Face)
03 - 06 Mar 2026	Dubai, UAE	USD 2995 per delegate

Introduction

A plant is only as reliable as its weakest asset. Total Plant Maintenance (TPM) is a comprehensive, systematic approach to achieving world-class reliability, availability, and performance across the entire facility. It encompasses all maintenance strategies—from preventive and predictive to reliability-centered and operator-driven maintenance.

This intensive 4-day course empowers participants with the tools, techniques, and strategic insights to build and sustain a Total Plant Maintenance culture. Participants will learn how to optimize equipment life cycles, reduce downtime, improve team performance, and embed continuous improvement across maintenance operations.

Objectives

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

- Understand the principles and pillars of Total Plant Maintenance
- Develop and implement a site-wide maintenance strategy
- Apply RCM, PM, PdM, and CM techniques across the asset base
- Reduce equipment failures through structured planning and root cause analysis
- Establish KPIs for performance monitoring and maintenance effectiveness
- Foster a collaborative culture between maintenance and operations

Why Attend

- Move from reactive to proactive maintenance culture
- Build plant-wide maintenance ownership and accountability
- Reduce unplanned downtime and improve equipment reliability
- Use data-driven insights to optimize maintenance decisions
- Strengthen alignment between production, engineering, and maintenance teams

Target Audience

This program is designed for:

- Maintenance managers, engineers, and supervisors
- Reliability and asset management professionals
- Plant and operations managers
- Maintenance planners and CMMS specialists
- Continuous improvement and TPM coordinators

Individual Benefits

Key competencies that will be developed include:

- TPM framework implementation
- Asset criticality analysis and risk-based maintenance
- Planning and scheduling optimization
- CMMS utilization and data reporting
- Maintenance cost control and lifecycle extension

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Greater equipment uptime and reduced lifecycle costs
- A structured and unified plant maintenance strategy
- Improved compliance with regulatory and safety standards
- More effective cross-functional collaboration and communication
- Enhanced culture of reliability and continuous improvement

Instructional Methodology

- Strategy Briefings - TPM frameworks, maintenance optimization, and cross-functional integration
- Hands-On Exercises - Criticality ranking, failure analysis, maintenance matrix development
- Case Studies - Global TPM implementations in manufacturing and process industries
- Workshops - Planning/scheduling simulations, KPI design, improvement action planning
- Peer Exchange - Discussion of implementation challenges and successes
- Tools - TPM audit checklist, planning templates, downtime logs, performance dashboards

MAWA EVENTS

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Course Outline

Detailed 2-Day Course Outline

Training Hours: 7:30 AM – 3:30 PM Daily Format: 2–3 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

DAY 1 - TPM Strategy and Implementation Foundations

- **Module 1: Introduction to Total Plant Maintenance**
 - Principles of TPM and how it differs from traditional maintenance
 - The eight pillars of TPM
 - TPM success factors and implementation phases
- **Module 2: Maintenance Strategy Maturity Model**
 - Evolution from reactive to proactive maintenance
 - Assessing your current maturity level
 - TPM benchmarking and readiness check
- **Module 3: Asset Criticality and Equipment Classification**
 - Ranking assets based on failure impact
 - Prioritizing maintenance strategies accordingly
 - Creating an equipment strategy matrix
- **Module 4: Workshop - TPM Readiness Assessment & Planning**
 - Teams assess current plant status and define vision for TPM

DAY 2 - Maintenance Planning, PM & PdM Integration

- **Module 5: Preventive and Predictive Maintenance Systems**
 - Optimizing PM schedules using FMEA and usage data
 - Selecting and implementing PdM technologies
 - Task standardization and lubrication management
- **Module 6: Maintenance Planning and Scheduling**
 - Planning workflow: request to execution
 - Job planning templates, BOMs, and work orders
 - Weekly scheduling, backlog management, and priorities
- **Module 7: Autonomous Maintenance and Operator Involvement**
 - Role of operators in equipment care
 - Standard inspection tasks and TPM checklists
 - Visual management and 5S foundations
- **Module 8: Workshop - PM Optimization and Schedule Design**
 - Teams design a PM plan for critical equipment

DAY 3 - Reliability Tools and Failure Management

- **Module 9: Root Cause Analysis and Failure Prevention**
 - Using 5 Whys, Fishbone, and Fault Tree Analysis
 - Common failure modes and detection techniques
 - Integrating RCA into a continuous improvement loop
- **Module 10: Reliability-Centered Maintenance (RCM) Essentials**
 - Identifying functional failures and consequences
 - Building RCM templates for rotating and static equipment
 - Bridging RCM outputs into CMMS
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Module 11: Measuring Maintenance Performance

- MTTR, MTBF, and OEE explained
- Linking work orders to KPIs and dashboards
- Using downtime and wrench time data for insights

Module 12: Workshop - RCA Simulation and KPI Design

- Participants solve a plant failure and develop KPI metrics

DAY 4 - Implementation, Culture & Continuous Improvement

Module 13: Maintenance Culture and Team Development

- Role of leadership and front-line teams in TPM
- Maintenance skills matrix and training planning
- Building accountability and engagement

Module 14: CMMS and Technology Integration

- CMMS best practices for planning and analysis
- Digital tools for inspections and mobile execution
- Integration with production and procurement systems

Module 15: TPM Audits and Continuous Improvement Cycles

- Designing TPM audits and plant walkthroughs
- Action logs, A3 reports, and Kaizen follow-up
- Aligning TPM with ISO 55000 and EAM strategies

Module 16: Final Workshop - TPM Roadmap Development

- Teams build a phased implementation plan
- Instructor feedback and discussion on next steps

Certification

Participants will receive a **Certificate of Completion in Total Plant Maintenance**, demonstrating their capability to plan, implement, and sustain a high-performing TPM strategy.

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