

CERTIFICATE IN PREVENTIVE AND PREDICTIVE MAINTENANCE

“Unlock Advanced Strategies to Maximize Asset Life and Minimize Downtime”

Schedule

Date	Venue	Fees (Face-to-Face)
09 - 13 Aug 2026	Manama - Bahrain	USD 3495 per delegate

► **Available delivery methods:** Face-to-Face & Online Training, In-House Training

Introduction

This intensive 5-day course provides participants with the knowledge and tools to design, implement, and optimize preventive and predictive maintenance programs. Effective maintenance is essential to prevent equipment failures, reduce downtime, and extend asset life, ensuring safe and reliable operations.

Participants will gain practical insights into modern maintenance strategies, data-driven decision-making, and the integration of predictive technologies to achieve world-class maintenance performance and deliver sustainable business value

Objectives

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

- Understand the fundamentals and benefits of preventive and predictive maintenance.
- Develop and implement proactive maintenance programs tailored to operational needs.
- Use condition monitoring techniques and data analysis to predict equipment failures.
- Apply root cause analysis to address recurring issues and prevent future breakdowns.
- Optimize maintenance strategies to balance cost, risk, and performance.

Why Attend

- Learn advanced techniques to improve equipment reliability and extend asset life.
- Reduce unplanned downtime and improve overall plant performance.
- Gain hands-on experience with condition monitoring and predictive tools.
- Enhance your ability to make data-driven maintenance decisions.
- Equip yourself with globally recognized preventive and predictive maintenance best practices.

Target Audience

This program is designed for:

- Maintenance managers, engineers, and supervisors.
- Reliability and asset management professionals.
- Plant and operations managers.
- Technical staff involved in maintenance planning and execution

Individual Benefits

Key competencies that will be developed include:

- Ability to design and manage proactive maintenance programs.
- Proficiency in using predictive technologies and monitoring tools.
- Enhanced analytical and problem-solving skills.
- Improved understanding of failure patterns and root cause analysis.
- Confidence to drive maintenance improvements within your organization.

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Increased equipment uptime and reduced maintenance costs.
- Improved maintenance planning and execution processes.
- Enhanced ability to detect and prevent equipment failures.
- Stronger alignment of maintenance strategies with business goals.
- A culture of continuous improvement and operational excellence.

Instructional Methodology

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

- Strategy Briefings - Deep dive into preventive and predictive maintenance principles and frameworks.
- Case Studies - Real-world examples demonstrating successful maintenance programs and technologies.
- Workshops - Practical exercises to develop maintenance strategies, apply condition monitoring, and analyze data.
- Peer Exchange - Group discussions on challenges, solutions, and lessons learned across industries.
- Tools - Templates and checklists for maintenance program design, condition monitoring, and performance tracking.

MAWA EVENTS

Address: No. 857, Block A2, Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net



Course Outline

Detailed 5-Day 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: Introduction to Preventive and Predictive Maintenance

- Module 1: Fundamentals of Preventive Maintenance (07:30 – 09:30)
 - Overview of preventive maintenance principles and practices
 - Benefits and limitations of preventive strategies
 - Identifying critical assets and defining maintenance tasks
- Module 2: Introduction to Predictive Maintenance (09:45 – 11:15)
 - Understanding predictive maintenance and its advantages
 - Technologies and tools used in predictive maintenance
 - Integrating predictive approaches with existing maintenance plans
- Module 3: Maintenance Program Development (01:00 – 03:30)
 - Establishing maintenance objectives and performance indicators
 - Creating a preventive and predictive maintenance framework
 - Assigning roles and responsibilities for program success

Day 2: Condition Monitoring Techniques

- Module 1: Vibration Analysis and Monitoring (07:30 – 09:30)
 - Fundamentals of vibration monitoring
 - Interpreting vibration data for early fault detection
 - Case studies on successful vibration analysis
- Module 2: Oil Analysis and Lubrication Management (09:45 – 11:15)
 - Principles of oil analysis and contamination control
 - Setting up lubrication programs for optimal performance
 - Using oil analysis data to improve equipment reliability
- Module 3: Thermal Imaging and Ultrasonic Testing (01:00 – 03:30)
 - Applying thermal imaging for electrical and mechanical inspections
 - Using ultrasonic tools for leak detection and mechanical analysis
 - Integrating multiple condition monitoring methods

Day 3: Data Analysis and Failure Prevention

- Module 1: Understanding Failure Modes and Patterns (07:30 – 09:30)
 - Common failure modes in rotating and static equipment
 - How to use failure data to improve maintenance decisions
 - Practical methods to prevent recurring failures
- Module 2: Root Cause Analysis Techniques (09:45 – 11:15)
 - Conducting root cause failure analysis (RCFA)
 - Tools and methodologies for effective RCA
 - Translating RCA findings into actionable improvements
- Module 3: Predictive Maintenance Data Analysis (01:00 – 03:30)
 - Analyzing condition monitoring data for predictive insights
 - Setting thresholds and alarm limits for early warnings
 - Reporting and communicating predictive maintenance results

Day 4: Program Optimization and Continuous Improvement

- Module 1: Optimizing Preventive Maintenance Activities (07:30 – 09:30)
- Reviewing and refining preventive maintenance schedules
- Balancing preventive and predictive activities for maximum impact
- Cost-benefit analysis of maintenance strategies
- Module 2: Performance Measurement and KPIs (09:45 – 11:15)
- Selecting the right KPIs to measure maintenance performance
- Using performance data for continuous improvement
- Benchmarking against industry standards
- Module 3: Integrating Maintenance Programs with Business Goals (01:00 – 03:30)
- Aligning maintenance strategies with operational and financial targets
- Collaborating across departments for maintenance excellence
- Developing an improvement roadmap

Day 5: Implementation and Future Strategies

- Module 1: Technology Trends in Predictive Maintenance (07:30 – 09:30)
- Exploring emerging technologies (AI, IoT, digital twins)
- How to prepare for digital transformation in maintenance
- Selecting the right technologies for your organization
- Module 2: Change Management and Program Implementation (09:45 – 11:15)
- Managing organizational change in maintenance practices
- Overcoming resistance and fostering a reliability culture
- Ensuring successful program adoption and sustainability
- Module 3: Final Review and Action Planning (01:00 – 03:30)
- Reviewing key learnings and insights
- Developing individual and organizational action plans
- Course wrap-up and closing remarks.

Certification

Participants will receive a Certificate of Completion in Preventive and Predictive Maintenance, validating their expertise in designing, implementing, and optimizing proactive maintenance programs using industry-leading practices and technologies

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.

In-House / Customized Training

Interested in running this course for your team?

Please contact us:

TEL:

+601116373203

EMAIL:

info@mawaevents.net