MAWA EVENTS

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

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RELIABILITY CENTERED MAINTENANCE (RCM)

"Maximize Asset Reliability and Performance through Proactive Maintenance Strategies"

Schedule

Date	Venue	Fees (Face-to-Face)
22 – 26 Jun 2026	London, UK	USD 3495 per delegate
02 – 06 Aug 2026	Manama, Bahrain	USD 3495 per delegate
21 – 25 Sep 2026	Dubai, UAE	USD 3495 per delegate

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

Introduction

Reliability Centered Maintenance (RCM) is a structured framework for optimizing the maintenance strategies of physical assets. Originally developed for the aviation industry, RCM helps organizations ensure that systems continue to do what their users require in their present operating context.

This 5-day advanced training course empowers engineers, maintenance professionals, and asset managers with the knowledge and skills to implement RCM methodologies. By focusing on reliability, safety, and cost-effectiveness, participants will learn to shift from reactive to proactive maintenance, leading to enhanced equipment performance and reduced operational risks.

Objectives

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

- Understand the core principles and process of Reliability Centered Maintenance (RCM)
- Conduct failure mode and effects analysis (FMEA) for assets and systems
- Develop risk-based maintenance strategies to improve reliability and safety
- Determine appropriate maintenance tasks (PM, CBM, PdM)
- Align RCM with ISO 55000 and asset management frameworks

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Why Attend

- Improve asset uptime and reduce unplanned outages
- Optimize maintenance costs and labor utilization
- Apply industry-proven tools for reliability analysis
- Enhance equipment lifecycle through condition-based strategies
- Ensure compliance with global reliability and asset management standards

Target Audience

This program is designed for:

- Maintenance and reliability engineers
- Asset and plant managers
- Maintenance planners and supervisors
- Operations and production professionals
- Safety and quality assurance personnel
- Mechanical and electrical engineers

Individual Benefits

Key competencies that will be developed include:

- In-depth understanding of RCM principles and standards
- Proficiency in FMEA and criticality analysis
- Skill in selecting optimal maintenance strategies
- Knowledge of failure data collection and analysis
- Improved collaboration between maintenance and operations teams

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Enhanced reliability and availability of critical assets
- Reduced maintenance costs and operational downtime
- Structured maintenance plans aligned with business goals
- Improved safety, compliance, and risk mitigation
- A culture of continuous improvement in maintenance practices

Instructional Methodology

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

- Strategy Briefings – Core concepts of RCM, reliability engineering, and maintenance optimization
- Case Studies – RCM implementation in manufacturing, oil & gas, aviation, and utilities
- Workshops – Hands-on exercises in FMEA, maintenance strategy development, and task selection
- Peer Exchange – Group discussion on best practices and challenges in maintenance strategy
- Tools – Templates for failure modes analysis, task assignment, and criticality ranking

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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: Fundamentals of Reliability and RCM

- Module 1: Introduction to Reliability and Maintenance Strategies (07:30 – 09:30)
- Overview of reliability, availability, and maintainability (RAM)
- Evolution of maintenance: reactive, preventive, predictive, and proactive
- Module 2: Principles and Objectives of RCM (09:45 – 11:15)
- The seven questions of RCM
- RCM2 and SAE JA1011 standard
- Module 3: Asset Selection and Data Collection (11:30 – 01:00)
- Selecting systems for RCM analysis
- Maintenance and failure data sources
- Module 4: Workshop – Asset Hierarchy and Criticality Ranking (02:00 – 03:30)

Day 2: Failure Modes and Effects Analysis (FMEA)

- Module 5: Understanding Failure Modes and Effects (07:30 – 09:30)
- Defining functional failures and consequences
- Classifying failure modes and their causes
- Module 6: Performing FMEA and RCM Logic Analysis (09:45 – 11:15)
- FMEA worksheets and templates
- Failure consequences: safety, operational, non-operational
- Module 7: Workshop – Conducting FMEA (11:30 – 01:00)
- Module 8: Case Study – Equipment Failure Scenario (02:00 – 03:30)

Day 3: Task Selection and Maintenance Strategies

- Module 9: Task Selection Criteria (07:30 – 09:30)
- Determining maintenance tasks: Time-directed, condition-directed, failure-finding
- Module 10: Preventive and Predictive Maintenance Techniques (09:45 – 11:15)
- Vibration analysis, infrared thermography, oil analysis, etc.
- Module 11: Optimization of Maintenance Intervals (11:30 – 01:00)
- Risk-based and reliability-centered task planning
- Module 12: Workshop – Developing a Maintenance Strategy (02:00 – 03:30)

Day 4: RCM Implementation and Integration

- Module 13: Implementing RCM Programs (07:30 – 09:30)
- Organizational readiness and stakeholder involvement
- Building RCM teams and workflows
- Module 14: Aligning with Asset Management Systems (09:45 – 11:15)
- Integration with CMMS and ISO 55000
- Module 15: Workshop – Maintenance Strategy Rollout Plan (11:30 – 01:00)
- Module 16: Peer Exchange – Sharing Field Applications (02:00 – 03:30)

Day 5: Performance Monitoring and Review

- Module 17: KPIs and Reliability Metrics (07:30 – 09:30)
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MTBF, MTTR, OEE, and maintenance cost indicators

- Module 18: Auditing and Reviewing RCM Implementation (09:45 – 11:15)
- Lessons learned, root cause analysis, continuous improvement
- Module 19: Final Group Presentations (11:30 – 01:00)
- Module 20: Wrap-Up and Feedback (02:00 – 03:30)

Certification

Participants will receive a Certificate of Completion in Reliability Centered Maintenance (RCM), demonstrating their competence in applying RCM techniques to improve asset reliability and maintenance performance.

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**