

## RELIABILITY, RESILIENCE & DAMAGE CONTROL IN MAINTENANCE

*“Enhancing Asset Uptime Through Robust Maintenance Strategies, Resilient Systems, and Rapid Damage Response”*

### Schedule

Date	Venue	Fees (Face-to-Face)
15 - 17 Apr 2026	Dubai - UAE	USD 2495 per delegate

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

### Introduction

In increasingly complex and demanding industrial environments, downtime, equipment failure, and operational disruption can result in substantial financial and safety consequences. Maintenance teams must go beyond traditional preventive strategies to embed resilience and damage control into their reliability programs.

This 3-day course offers practical and strategic insight into strengthening maintenance performance through risk-based reliability methods, system resilience planning, and structured damage control processes. Participants will learn how to analyze failure patterns, design responsive plans, and fortify operational continuity with minimal losses.

### Objectives

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

- Apply reliability principles to reduce failures and extend equipment life
- Incorporate resilience strategies to ensure maintenance adaptability and recovery
- Design rapid damage control and containment procedures
- Use risk assessment to prioritize maintenance activities and resource allocation
- Evaluate and improve asset and system reliability using key performance indicators

## Why Attend

- Learn proactive approaches to prevent, absorb, and recover from system failures
- Strengthen your maintenance program with risk-aware and responsive strategies
- Minimize downtime through effective emergency maintenance protocols
- Equip your team to respond to damage and disruption with speed and structure
- Improve long-term reliability outcomes and reduce lifecycle costs

## Target Audience

This program is designed for:

- Maintenance, reliability, and operations engineers
- Plant managers and technical supervisors
- Asset management professionals
- Risk managers and contingency planners
- Anyone involved in maintenance planning and equipment performance

## Individual Benefits

Key competencies that will be developed include:

- Application of FMEA and reliability modeling techniques
- Design and implementation of damage containment strategies
- Use of resilience metrics and risk-based prioritization
- Root cause analysis and fault isolation
- Tactical and strategic maintenance planning

## Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Reduced unscheduled downtime and unplanned maintenance events
- Higher system availability and responsiveness during disruptions
- Improved risk management and equipment lifecycle planning
- Greater alignment between maintenance practices and business continuity goals
- Enhanced team capability to handle failure events and post-incident recovery

## Instructional Methodology

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

- Strategy Briefings - Maintenance resilience, reliability frameworks, and KPIs
- Case Studies - Industry examples of damage control and failure recovery
- Workshops - FMEA, fault trees, and response planning exercises
- Peer Exchange - Sharing of real maintenance failure experiences
- Tools - Risk matrix templates, recovery protocols, and reliability assessment 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: Reliability-Centered Maintenance and Risk-Based Thinking

- Module 1: Foundations of Equipment Reliability (07:30 – 09:30) • Reliability concepts, MTBF, failure patterns
- Module 2: Failure Modes and Effects Analysis (FMEA) (09:45 – 11:15) • Identifying critical assets and failure causes
- Module 3: Workshop – Conducting an FMEA for Key Equipment (11:30 – 01:00) • Hands-on asset risk prioritization
- Module 4: Maintenance Strategy Development (02:00 – 03:30) • Balancing preventive, predictive, and corrective approaches

### Day 2: Building Maintenance Resilience

- Module 1: Resilience Concepts in Maintenance (07:30 – 09:30) • System robustness, redundancy, and recovery
- Module 2: Asset Vulnerability and Criticality Assessment (09:45 – 11:15) • Identifying weak points and impact zones
- Module 3: Workshop – Maintenance Contingency Planning (11:30 – 01:00) • Develop contingency protocols for high-risk assets
- Module 4: Supply Chain and Spare Part Resilience (02:00 – 03:30) • Stocking strategies, lead time planning, vendor coordination

### Day 3: Damage Control and Rapid Response

- Module 1: Emergency Maintenance and Fault Isolation (07:30 – 09:30) • Crisis procedures and isolation techniques
- Module 2: Damage Containment and Temporary Fixes (09:45 – 11:15) • First-response actions, repair vs. replace decisions
- Module 3: Workshop – Simulated Damage Control Exercise (11:30 – 01:00) • Team-based scenario planning and role-play
- Module 4: Post-Failure Analysis and Lessons Learned (02:00 – 03:30) • RCA documentation, performance review, and action closure

## Certification

Participants will receive a Certificate of Completion in Reliability, Resilience & Damage Control in Maintenance, validating their ability to enhance maintenance performance through reliability planning, system resilience, and structured damage control practices.

## Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
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