

ASSET INTEGRITY & PROCESS SAFETY

“Ensuring Operational Excellence through Robust Asset Integrity and Safety Practices”

Schedule

Date	Venue	Fees (Face-to-Face)
16 - 20 Aug 2026	Doha, Qatar	USD 3495 per delegate

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

Introduction

This intensive 5-day training equips professionals with essential knowledge and tools to ensure asset integrity and maintain the highest process safety standards in industrial operations. Participants will explore the interconnections between equipment reliability, safety management systems, and operational performance to mitigate risks and optimize production.

The course blends international best practices with practical tools, enabling participants to identify vulnerabilities, implement preventive measures, and sustain long-term asset performance while meeting regulatory and environmental requirements.

Objectives

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

- Understand the principles of asset integrity and process safety management
- Identify and assess risks across asset lifecycles
- Apply preventive maintenance, inspection, and monitoring strategies
- Develop and implement process safety management (PSM) systems
- Strengthen organizational safety culture and ensure regulatory compliance

Why Attend

- Gain comprehensive insight into asset integrity and process safety frameworks
- Learn how to reduce operational risks and avoid costly failures
- Understand key international standards and regulatory requirements
- Strengthen your organization's safety culture and improve performance
- Enhance your capabilities to lead or support safety and integrity programs

Target Audience

This program is designed for:

- Asset integrity managers and engineers
- Process safety professionals and engineers
- Maintenance, reliability, and inspection personnel
- HSE (Health, Safety, Environment) managers and officers
- Plant managers, operations supervisors, and technical consultants

Individual Benefits

Key competencies that will be developed include:

- In-depth understanding of asset integrity principles and safety management
- Skills in risk assessment, root cause analysis, and failure prevention
- Enhanced ability to design and implement inspection and maintenance strategies
- Knowledge of best practices in regulatory compliance and safety audits
- Leadership in driving continuous safety improvements

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved equipment reliability and operational performance
- Reduced safety incidents, downtime, and associated costs
- Enhanced regulatory compliance and reputation management
- Stronger integration of safety and asset management systems
- Increased capacity to sustain long-term asset performance and safety

Instructional Methodology

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

- Strategy Briefings - Detailed exploration of asset integrity and process safety frameworks
- Case Studies - Real-world examples of asset failures and successful integrity management
- Workshops - Hands-on sessions developing risk assessments, safety plans, and inspection schedules
- Peer Exchange - Group discussions on industry-specific challenges and lessons learned
- Tools - Practical templates and checklists for asset integrity audits and safety management

MAWA EVENTS

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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: Foundations of Asset Integrity and Process Safety

- Module 1: Introduction to Asset Integrity (07:30 – 09:30)
- Definitions, importance, and scope of asset integrity management
- Overview of lifecycle management for industrial assets
- Key components of an effective asset integrity program
- Module 2: Process Safety Management Principles (09:45 – 11:15)
- Introduction to process safety management (PSM)
- Regulatory and industry standards (API, OSHA, ISO, etc.)
- Safety culture and leadership responsibilities
- Module 3: Risk Assessment Fundamentals (11:30 – 01:00)
- Hazard identification and risk analysis methods
- Failure modes and effects analysis (FMEA)
- Bow-tie and fault tree analysis techniques

Day 2: Inspection, Monitoring, and Maintenance

- Module 1: Inspection and Monitoring Strategies (07:30 – 09:30)
- Non-destructive testing (NDT) methods and technologies
- Condition monitoring and predictive maintenance
- Data management and integrity verification
- Module 2: Preventive and Predictive Maintenance (09:45 – 11:15)
- Maintenance planning and scheduling
- Root cause failure analysis (RCFA)
- Integrating maintenance into the asset management system
- Module 3: Risk-Based Approaches (11:30 – 01:00)
- Risk-based inspection (RBI) methodologies
- Prioritizing inspection and maintenance efforts
- Case studies on RBI implementation

Day 3: Process Safety Management Systems

- Module 1: PSM Program Development (07:30 – 09:30)
- Key elements of a PSM program
- Developing process safety procedures and guidelines
- Integration with asset management systems
- Module 2: Emergency Preparedness and Response (09:45 – 11:15)
- Designing effective emergency response plans
- Incident management and communication protocols
- Lessons learned from past industrial incidents
- Module 3: Safety Audits and Compliance (11:30 – 01:00)
- Conducting safety audits and performance reviews
- Ensuring compliance with legal and regulatory requirements
- Continuous improvement strategies

Day 4: Leadership and Organizational Culture

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Module 1: Building a Safety Culture (07:30 – 09:30)

- Leadership roles in fostering safety and integrity
- Engaging employees and contractors in safety efforts
- Communication strategies for promoting safety awareness

Module 2: Human Factors in Safety (09:45 – 11:15)

- Understanding human error and its impact on safety
- Ergonomic considerations and human-machine interfaces
- Training and competency development

Module 3: Performance Metrics and Reporting (11:30 – 01:00)

- Key performance indicators (KPIs) for asset integrity
- Safety reporting systems and analytics
- Benchmarking and best practices

Day 5: Integrating Integrity and Safety for Long-Term Success

Module 1: Digital Tools and Technologies (07:30 – 09:30)

- Role of digitalization, IoT, and AI in asset integrity
- Data-driven decision-making for process safety
- Digital twins and predictive analytics

Module 2: Sustainability and Environmental Considerations (09:45 – 11:15)

- Linking asset integrity to environmental performance
- Sustainability frameworks and reporting
- Future trends in integrity and safety management

Module 3: Final Workshop and Action Planning (11:30 – 01:00)

- Group exercises to develop action plans for participants’ organizations
- Identifying key takeaways and implementation strategies
- Course wrap-up and Q&A

Certification

Participants will receive a Certificate of Completion in Asset Integrity & Process Safety, validating their advanced understanding of asset management, process safety frameworks, and strategies for ensuring operational excellence.

Why Choose MAWA Events

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