Asset Integrity Management Training Course

Professional Development Training Course Outline

Category	Real Estate Institute	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In today's high-risk industrial environments, Asset Integrity Management (AIM) has become essential for ensuring the safe, reliable, and efficient operation of physical assets throughout their lifecycle. Asset Integrity Training Course equips participants with the skills, knowledge, and tools required to effectively implement integrity programs across industries such as oil & gas, petrochemicals, power generation, mining, and manufacturing. With increasing regulatory demands, aging infrastructure, and the need for cost-effective maintenance strategies, organizations must prioritize asset integrity to avoid unplanned shutdowns, failures, and financial losses.

This course emphasizes risk-based inspection (RBI), corrosion management, reliability-centered maintenance (RCM), failure analysis, and condition monitoring, ensuring learners gain hands-on exposure to modern practices and technologies. Participants will explore international standards, real-world case studies, and interactive modules tailored to diverse asset types, environments, and regulatory frameworks. By the end of this training, learners will be empowered to make data-driven decisions, improve asset performance, and ensure long-term asset integrity.

Programme Curriculum

Asset Integrity Training Course

Introduction

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Course Objectives

1. Understand the fundamentals of Asset Integrity Management (AIM).
2. Apply Risk-Based Inspection (RBI) methodologies effectively.
3. Identify and mitigate corrosion and material degradation risks.
4. Implement Reliability-Centered Maintenance (RCM) techniques.
5. Conduct failure root cause analysis for critical assets.
6. Integrate digital technologies for condition-based monitoring.
7. Analyze key performance indicators (KPIs) for asset integrity.
8. Ensure compliance with global standards (API, ISO, ASME).
9. Optimize lifecycle cost and reliability of assets.
10. Develop integrity management plans (IMPs) and documentation.
11. Perform audits and assessments of integrity programs.
12. Improve safety, environmental, and operational performance.
13. Explore the role of AI and IoT in predictive asset integrity.

Target Audiences

1. Maintenance Engineers
2. Plant & Facility Managers
3. Reliability Engineers
4. HSE Officers
5. Project Managers
6. QA/QC Professionals
7. Operations Managers
8. Asset Integrity Consultants

Course Duration: 5 days

Course Modules

Module 1: Introduction to Asset Integrity Management

- Definition and Importance of AIM
- Regulatory and Safety Drivers
- Key Components of AIM
- Lifecycle Management Overview
- Common Integrity Challenges
- **Case Study: Pipeline Integrity in Offshore Oil & Gas**

Module 2: Risk-Based Inspection (RBI)

- Principles of RBI
- API 580 and 581 Standards
- Risk Ranking and Assessment
- Inspection Planning and Optimization
- Software Tools for RBI
- **Case Study: RBI Implementation in Refinery Systems**

Module 3: Corrosion Management

- Types of Corrosion in Industry

- Material Selection and Compatibility
- Corrosion Monitoring Techniques
- Cathodic Protection Methods
- Coating Systems and Inspections
- **Case Study: Corrosion Control in Petrochemical Tanks**

Module 4: Reliability-Centered Maintenance (RCM)

- RCM Process and Benefits
- FMEA and Criticality Analysis
- Preventive vs Predictive Maintenance
- Condition Monitoring Techniques
- RCM Software Integration
- **Case Study: RCM Strategy in Power Plants**

Module 5: Failure Analysis and Root Cause Investigation

- Types of Failures in Assets
- Steps in Failure Investigation
- Data Collection and Analysis
- Reporting and Documentation
- Corrective Action Implementation
- **Case Study: Equipment Failure in Chemical Processing**

Module 6: Condition Monitoring Technologies

- Vibration Analysis
- Ultrasonic Testing (UT)
- Infrared Thermography
- Oil Analysis
- Wireless Sensor Monitoring (IoT)
- **Case Study: Predictive Maintenance in Manufacturing Plants**

Module 7: Asset Integrity Compliance and Auditing

- Key Compliance Standards (API, ISO)
- Documentation and Record Keeping
- Internal & External Audit Techniques
- Gap Analysis & Continuous Improvement
- Certification Processes
- **Case Study: Audit Failures and Lessons Learned**

Module 8: Digital Transformation in AIM

- Role of Digital Twins
- Integration of AI & IoT
- Smart Sensors and Real-time Data
- Predictive Analytics for Asset Health
- Cybersecurity in Integrity Systems
- **Case Study: AI-Based Integrity Forecasting in Pipelines**

Training Methodology

- Interactive instructor-led sessions
- Hands-on exercises and group discussions
- Simulation-based scenario analysis

- Real-life industry case studies
- Assessments and knowledge checks

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

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