

Reliability Excellence, Asset Integrity & Risk-Based Maintenance

Cairo (Egypt)

22 - 26 November 2026

UK Training

PARTNER



Reliability Excellence, Asset Integrity & Risk-Based Maintenance

Code: OG32 From: 22 - 26 November 2026 City: Cairo (Egypt) Fees: 4900 Pound

Introduction

This advanced five-day course provides an integrated approach to improving equipment reliability, asset integrity, and maintenance effectiveness. It focuses on Reliability-Centered Maintenance RCM, Risk-Based Inspection RBI, FMEA/FMECA, equipment criticality, bad-actor elimination, Root Cause Analysis RCA, predictive maintenance, reliability KPIs, and asset integrity governance.

Course Objectives

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

- Apply Reliability-Centered Maintenance RCM principles.
- Develop risk-based maintenance and inspection strategies.
- Apply RBI methodologies to critical assets.
- Conduct FMEA/FMECA and identify failure modes.
- Identify and eliminate bad actors.
- Apply Root Cause Analysis to recurring failures.
- Develop predictive and condition-based maintenance strategies.
- Assess equipment criticality.
- Improve MTBF and reduce MTTR.
- Develop and monitor reliability KPIs.
- Strengthen asset integrity governance.
- Develop reliability improvement programs.

Course Outline - 5 Days

Day 1 - Reliability Strategy & Equipment Criticality

- Reliability management fundamentals.
- Reliability strategy and business objectives.
- Equipment criticality assessment.
- Criticality ranking and risk prioritization.
- Failure consequences and functional failures.
- Reliability KPIs.
- MTBF, MTTR, availability, and reliability.
- Developing a reliability improvement strategy.



Day 2 - RCM, FMEA/FMECA & Maintenance Strategy

- Reliability-Centered Maintenance RCM.
- RCM principles and methodology.
- Failure modes and failure effects.
- FMEA and FMECA.
- Failure consequence analysis.
- Selecting appropriate maintenance tasks.
- Preventive, predictive, and condition-based maintenance.
- Developing optimized maintenance strategies.

Day 3 - RBI, Asset Integrity & Risk Management

- Risk-Based Inspection RBI.
- Asset integrity management principles.
- Risk identification and assessment.
- Probability and consequence of failure.
- Inspection planning and prioritization.
- Integrity threats and degradation mechanisms.
- Risk-based maintenance decisions.
- Asset integrity governance and assurance.

Day 4 - Bad Actors, RCA & Reliability Improvement

- Identifying and prioritizing bad actors.
- Bad-actor elimination strategies.
- Root Cause Analysis RCA.
- Failure investigation techniques.
- Recurring failure analysis.
- Corrective and preventive actions.
- Reliability improvement projects.
- Predictive maintenance and condition monitoring.
- Improving MTBF and reducing MTTR.

Day 5 - Reliability Performance, KPIs & Continuous Improvement

- Reliability performance management.
- Reliability and maintenance KPIs.
- Equipment availability and performance.
- Predictive maintenance performance.
- Benchmarking reliability performance.
- Reliability data analysis and decision-making.
- Asset integrity performance indicators.
- Lessons learned and knowledge capture.



- Reliability improvement roadmap.
- Building a culture of reliability excellence.

Why Attend This Course?

Wins

- Improved equipment reliability.
- Reduced recurring failures.
- Better equipment criticality decisions.
- Optimized maintenance strategies.
- Improved RCM and RBI application.
- Stronger asset integrity management.
- Increased MTBF.
- Reduced MTTR.
- Better predictive maintenance performance.
- Improved reliability KPIs.
- Reduced maintenance and operational risk.

Potential Losses Without These Capabilities

- Recurring equipment failures.
- Poor maintenance task selection.
- Ineffective inspection strategies.
- Uncontrolled asset integrity risks.
- High MTTR and low MTBF.
- Excessive corrective maintenance.
- Persistent bad actors.
- Poor reliability performance.
- Increased downtime and production losses.

Conclusion

This course provides managers and reliability professionals with an integrated framework for improving **reliability, asset integrity, maintenance effectiveness, and risk management**, using proven approaches including **RCM, RBI, FMEA/FMECA, RCA, criticality analysis, predictive maintenance, and reliability performance management**.

Frequently Asked Questions FAQ

Who should attend?

Reliability Managers, Asset Integrity Managers, Maintenance Managers, Reliability Engineers, Maintenance Engineers, Inspection Engineers, and senior technical professionals.



Is it an advanced course?

Yes. It is designed for experienced reliability, maintenance, inspection, and asset integrity professionals.

What is the duration?

5 days, 4 hours per day — 20 training hours.

Does it cover RCM and RBI?

Yes. Both RCM and RBI are core components of the course.

Does it cover FMEA/FMECA and RCA?

Yes. The course covers both failure-mode analysis and Root Cause Analysis.

Does it cover predictive maintenance?

Yes. Predictive and condition-based maintenance strategies are covered, including their role in improving reliability and reducing failures.



Blackbird Training Clients



MANNAI Trading
Company WLL,
Qatar



Alumina Corporation
Guinea



Booking.com
Netherlands



Oxfam GB International
Organization,
Yemen



Capital Markets
Authority,
Kuwait



Waltersmith Petroman Oil Limited
Nigeria



Qatar National Bank
(QNB),
Qatar



Qatar Foundation,
Qatar



AFRICAN UNION ADVISORY
BOARD ON CORRUPTION,
Tanzania



KFAS
Kuwait



Reserve Bank of
Malawi,
Malawi



Central Bank of Nigeria
Nigeria



Ministry of Interior
Kingdom of Saudi Arabia
KSA



Mabruk Oil Company
Libya



Saudi Electricity
Company,
KSA



BADAN PENGELOLA
KEUANGAN Haji,
Indonesia



NATO
Italy



ENI CORPORATE
UNIVERSITY,
Italy



Gulf Bank
Kuwait



المؤسسة العامة للتأمينات الاجتماعية
General Organization for
Social Insurance
KSA



Defence Space Administration
Nigeria



National Industries
Group (Holding),
Kuwait



Hamad Medical
Corporation,
Qatar



USAID
Pakistan



STC Solutions,
KSA



North Oil company,



EKO Electricity



Oman Broadband



UNITED NATIONS
UN.



هيئة تنظيم الكهرباء - عمان
Authority for
Electricity Regulation, Oman

UK Training
PARTNER



Blackbird Training Categories

Management & Admin

Entertainment & Leisure
Professional Skills
Finance, Accounting, Budgeting
Media & Public Relations
Project Management
Human Resources
Audit & Quality Assurance
Marketing, Sales, Customer Service
Secretary & Admin
Supply Chain & Logistics
Management & Leadership
Agile and Elevation

Technical Courses

Artificial Intelligence (AI)
Sustainability, ESG & Corporate Responsibility
Advanced Courses
Hospital Management
Public Sector
Special Workshops
Oil & Gas Engineering
Telecom Engineering
IT & IT Engineering
Health & Safety
Law and Contract Management
Customs & Safety
Aviation
C-Suite Training

