QUEST
Professional Center

PROFESSIONAL TRAINING COURSE

Course No. 1337

Maintenance Best Practices Training Course

MAINTENANCE ENGINEERING
INDUSTRIAL ENGINEERING, MAINTENANCE & OPERATIONS

DURATION
5 Days

DELIVERY
Classroom

LOCATION
Madrid, Spain

DATES
30 Nov – 4 Dec 2026

Scheduled Event Details

CITY	Madrid, Spain
DATE	30 Nov – 4 Dec 2026
DELIVERY TYPE	Classroom
COURSE FEE	€6,000

Course Overview

The Maintenance Best Practices Training Course provides a comprehensive and practical framework for strengthening maintenance excellence, improving asset reliability, and supporting sustainable operational performance. The course is designed for organizations that depend on critical equipment, facilities, infrastructure, fleets, utilities, production assets, and technology-enabled operational systems. It enables participants to apply proven maintenance management practices that improve planning, execution, control, and continuous improvement.

Effective maintenance is not limited to repairing equipment after failure. It is a strategic business function that protects asset value, supports safety and compliance, reduces operational disruption, and improves service quality. For ministries, government entities, public sector organizations, banks, financial institutions, oil and gas companies, utilities, industrial operations, and large corporations, maintenance best practices are essential to maintaining dependable operations and managing risk responsibly.

This course examines the full maintenance lifecycle, including asset criticality, maintenance strategy selection, preventive and predictive maintenance, work management, planning and scheduling, spare-parts control, contractor coordination, performance measurement, and maintenance governance. Participants will explore how maintenance systems, people, processes, data, and leadership decisions must work together to create a disciplined and efficient maintenance environment.

The Maintenance Best Practices Training Course combines technical knowledge with operational and management perspectives. It helps leaders make informed investment and prioritization decisions while enabling specialists to improve everyday maintenance practices. Participants will leave with practical tools and an implementation-oriented approach for improving maintenance performance, reliability, cost control, and organizational resilience.

Objectives

- Analyze the current maintenance environment and identify performance gaps using structured assessment criteria during the course.
- Assess asset criticality by considering safety, operational, financial, environmental, compliance, and service-delivery impacts.
- Evaluate the suitability of reactive, preventive, predictive, condition-based, and proactive maintenance strategies for different asset types.
- Develop maintenance plans that define tasks, frequencies, standards, resources, responsibilities, and completion requirements.
- Apply work planning and scheduling principles to improve maintenance readiness, coordination, and execution quality.
- Design practical maintenance performance indicators that support management review and continuous improvement.
- Improve the quality of maintenance work orders by defining clear job scopes, priorities, failure information, and closeout requirements.
- Strengthen preventive maintenance programs by reviewing task effectiveness, interval selection, and recurring failure trends.
- Implement basic spare-parts and materials control practices that improve maintenance responsiveness and inventory reliability.
- Align maintenance priorities with organizational risk management, asset management, safety, compliance, and budget objectives.
- Assess contractor and service-provider performance using measurable maintenance quality, safety, and delivery criteria.
- Develop a time-bound maintenance improvement action plan for implementation after the course.

Who Should Attend

The Maintenance Best Practices Training Course is designed for maintenance managers, asset managers, reliability managers, engineering managers, facilities managers, operations managers, plant managers, and technical services leaders responsible for asset availability, maintenance cost, service continuity, and operational risk. It is also highly relevant for executives, directors, and decision makers who oversee asset-intensive departments, infrastructure portfolios, production facilities, utilities, property operations, or essential support services.

The course is suitable for maintenance engineers, reliability engineers, mechanical engineers, electrical engineers, instrumentation and control engineers, maintenance planners, schedulers, supervisors, team leaders, technicians, inspectors, and CMMS or EAM system administrators. It supports professionals working with industrial equipment, buildings and facilities, energy systems, transport assets, water and utility networks, process plants, data centres, security systems, and other critical operational assets.

Procurement, supply chain, finance, HSE, quality, risk, internal audit, project management, digital transformation, and operational excellence professionals will also benefit where their responsibilities involve maintenance contracts, spare-parts availability, maintenance budgets, safety assurance, asset condition, service levels, or performance reporting. The course encourages stronger collaboration across departments that influence maintenance outcomes and asset lifecycle value.

Learning Outcomes

- Explain how maintenance best practices contribute to asset reliability, operational continuity, safety, compliance, and cost discipline.
- Assess maintenance maturity and identify priority areas for improvement within a department, site, or asset portfolio.
- Classify assets according to criticality and use the results to support maintenance prioritization.
- Select suitable maintenance strategies based on asset function, failure characteristics, risk, and operating context.
- Develop preventive maintenance plans with clear tasks, frequencies, standards, labour requirements, and acceptance criteria.
- Improve maintenance work orders by documenting the problem, scope, resources, risks, job steps, and completion information.
- Apply planning and scheduling practices that increase the proportion of prepared and coordinated maintenance work.
- Review recurring failures and maintenance history to identify opportunities for root cause analysis and reliability improvement.
- Establish practical performance indicators for planned work, schedule compliance, backlog, repeat failures, equipment availability, and maintenance quality.
- Apply basic principles of spare-parts management, materials readiness, and inventory control for critical maintenance activities.

- Communicate maintenance priorities, risks, and performance findings clearly to management and operational stakeholders.
- Produce a structured maintenance best-practice improvement plan relevant to the participant's workplace.

Course Outline

DAY 01

Maintenance Excellence, Asset Management, and Organizational Performance

- The strategic role of maintenance in asset-intensive and service-critical organizations.
- Maintenance best practices and their relationship to reliability, availability, safety, compliance, and lifecycle value.
- Maintenance approaches: reactive, corrective, preventive, condition-based, predictive, and proactive maintenance.
- Maintenance maturity assessment, organizational capability, leadership commitment, and accountability.

> **PRACTICAL APPLICATION OR DISCUSSION**
> Assessing current maintenance challenges, risks, and improvement priorities.

DAY 02

Asset Criticality, Maintenance Strategy, and Preventive Maintenance Design

- Asset hierarchy, asset registers, equipment information, and maintenance master data.
- Risk-based asset criticality assessment and prioritization of maintenance resources.
- Failure modes, functional failures, degradation mechanisms, and maintenance task selection.
- Designing effective preventive maintenance plans, inspection tasks, frequencies, standards, and acceptance criteria.

> **PRACTICAL APPLICATION OR DISCUSSION**
> Developing a preventive maintenance strategy for a selected critical asset or system.

DAY 03

Maintenance Work Management, Planning, and Scheduling

- Maintenance request, work order, prioritization, approval, planning, execution, and closeout processes.
- Developing work scopes, job plans, task lists, safety requirements, permits, tools, materials, and labour estimates.
- Weekly scheduling, coordination with operations, shutdown planning, backlog control, and emergency-work management.
- Supervisory practices for execution quality, maintenance documentation, testing, handover, and work verification.

> **PRACTICAL APPLICATION OR DISCUSSION**
>
> Reviewing and improving sample maintenance work orders and weekly schedules.

DAY 04

Reliability Improvement, Materials Management, and Digital Maintenance Systems

- Root cause analysis, repeat failure review, defect elimination, and continuous reliability improvement.
- Condition monitoring, inspection findings, predictive maintenance, and the use of asset health information.
- Spare-parts classification, critical spares, inventory accuracy, replenishment, storage, and materials readiness.
- CMMS and EAM systems, maintenance data quality, performance dashboards, reporting, and decision support.

> **PRACTICAL APPLICATION OR DISCUSSION**
>
> Creating a reliability improvement workflow from recurring failure identification to corrective action verification.

DAY 05

Performance Measurement, Governance, and Maintenance Improvement Planning

- Maintenance performance indicators: planned maintenance, schedule compliance, backlog, repeat work, downtime, availability, and cost performance.
- Maintenance governance, roles and responsibilities, management review, audits, and continuous improvement cycles.
- Contractor management, service-level expectations, quality assurance, safety coordination, and performance evaluation.
- Building a maintenance culture based on ownership, discipline, learning, communication, and operational partnership.

FINAL WORKSHOP, ACTION PLAN, OR IMPLEMENTATION EXERCISE

Developing a 90-day maintenance best practices action plan with priorities, responsibilities, milestones, and performance measures.

Register or Request More Information

Course page: https://quest-training.com/courses/maintenance-best-practices-training-course
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