



# Training Course



## Certified Maintenance Auditor (CMA)

### Description

Efficient maintenance management is crucial for maximizing operational efficiency, reducing downtime, and ensuring asset longevity. The Certified Maintenance Auditor (CMA) course is designed to equip professionals with the knowledge and tools to assess, evaluate, and improve maintenance processes through systematic auditing techniques. This comprehensive program covers maintenance audit frameworks, performance benchmarking, compliance standards, and continuous improvement strategies. Participants will gain practical auditing skills, learn how to identify inefficiencies, and develop action plans to optimize maintenance operations in various industries.

### Certified Maintenance Auditor (CMA) objectives:

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

- Understand the principles and methodologies of maintenance auditing.
- Conduct comprehensive maintenance audits following industry best practices.
- Utilize benchmarking techniques to compare and improve maintenance performance.
- Ensure compliance with ISO 55000, PAS 55, and other maintenance standards.
- Develop and implement strategic maintenance improvement plans.
- Enhance asset reliability, safety, and cost-effectiveness.
- Gain the Certified Maintenance Auditor (CMA) credential.

### Who Should Attend:

This course is ideal for:

- Maintenance auditors and inspectors.
- Maintenance managers and supervisors.
- Reliability and asset management professionals.
- Operations and plant managers.
- Quality assurance and compliance officers.
- Facility and engineering managers.

## Course Outline

### Day 1: Introduction to Maintenance Auditing

- Understanding the role of maintenance auditing in operational efficiency.
- Types of maintenance audits: Internal vs. external.
- Maintenance audit frameworks and methodologies.
- Overview of ISO 55000, PAS 55, and regulatory standards.
- Case study: Best practices in global maintenance auditing.

### Day 2: Developing a Maintenance Audit Plan

- Steps in planning a maintenance audit.
- Establishing audit objectives, scope, and criteria.
- Developing a maintenance audit checklist.
- Identifying key areas of risk and inefficiency.
- Workshop: Creating a maintenance audit plan for a real-world scenario.

### Day 3: Conducting the Maintenance Audit

- Data collection methods for effective auditing.
- Techniques for interviewing staff and inspecting maintenance records.
- Identifying non-compliance, inefficiencies, and areas for improvement.
- Practical exercise: Simulating a maintenance audit process.

### Day 4: Benchmarking Maintenance Performance

- Introduction to maintenance performance benchmarking.
- Defining Key Performance Indicators (KPIs) for maintenance audits.
- Internal vs. external benchmarking approaches.
- Using industry benchmarks to measure maintenance effectiveness.
- Case study analysis: Global benchmarking success stories.

### Day 5: Identifying and Implementing Improvement Strategies

- Root Cause Analysis (RCA) for maintenance inefficiencies.
- Applying Lean Maintenance and Six Sigma for continuous improvement.
- Integrating Predictive, Preventive, and Corrective Maintenance strategies.
- Hands-on session: Developing a maintenance improvement roadmap.

### Day 6: Auditing Asset Reliability & Risk Management

- Reliability-Centered Maintenance (RCM) principles.
- Risk-based maintenance auditing techniques.
- Identifying and mitigating safety and operational risks.
- Implementing Total Productive Maintenance (TPM).

- Workshop: Assessing asset reliability in a maintenance audit.

## **Day 7: Digital Tools & Technology in Maintenance Auditing**

- Introduction to Computerized Maintenance Management Systems (CMMS).
- Leveraging IoT, AI, and Big Data for predictive maintenance.
- Conducting automated audits and digital reporting.
- Case study: How digital transformation improves maintenance auditing.

## **Day 8: Financial and Cost Analysis in Maintenance Audits**

- Budgeting and cost control for maintenance.
- Conducting a cost-benefit analysis (CBA) of maintenance strategies.
- Measuring ROI in maintenance improvements.
- Exercise: Creating a cost-effective maintenance improvement plan.

## **Day 9: Reporting & Presenting Audit Findings**

- Structuring a comprehensive maintenance audit report.
- Presenting audit findings to management and stakeholders.
- Recommending corrective actions and improvement plans.
- Developing a continuous improvement strategy based on audit results.
- Workshop: Drafting a real-world maintenance audit report.

## **Day 10: Final Assessment & Certification**

- Capstone project: Conducting and presenting a full maintenance audit.
- Peer review and expert feedback session.
- Final written exam to earn the Certified Maintenance Auditor (CMA) credential.
- Closing remarks, Q&A, and certification ceremony.