

€ TRAINING

Quality Assurance in Maintenance and
Engineering

A group of four smiling professionals (two men and two women) in a meeting. The woman in the foreground is wearing a black top and a multi-strand necklace. The others are wearing white shirts. They are sitting around a table with papers and a laptop.

2 - 6 June 2025
Rome (Italy)



Quality Assurance in Maintenance and Engineering

REF: A2118 DATE: 2 - 6 June 2025 Venue: Rome (Italy) - Fee: 5940 Euro

Introduction:

This training program provides participants with a holistic understanding of quality management principles and practices in maintenance and engineering contexts. It empowers them to enhance operational efficiency, reliability, and quality standards within their maintenance and engineering functions.

Program Objectives:

At the end of this program, participants will be able to:

- Apply quality assurance principles effectively in maintenance and engineering contexts to ensure operational efficiency and reliability.
- Navigate regulatory requirements and standards relevant to quality assurance in maintenance and engineering.
- Identify key stakeholders and their roles in quality assurance processes, fostering collaborative efforts towards quality improvement.
- Utilize various quality assurance tools and methodologies to assess and enhance maintenance and engineering processes.
- Demonstrate a comprehensive understanding of quality assurance concepts and their practical applications in optimizing maintenance and engineering operations.

Targeted Audience:

- Quality control staff.
- Maintenance engineers.
- Quality manager.
- Safety manager.
- Auditors.

Program Outlines:

Unit 1:

Fundamentals of Quality Assurance in Maintenance and Engineering:

- Introduction to quality assurance principles and their application in maintenance and engineering.
- Understanding the importance of quality assurance in ensuring operational efficiency and reliability.
- Overview of regulatory requirements and standards relevant to maintenance and engineering quality assurance.
- Identifying key stakeholders and their roles in quality assurance processes.
- Introduction to quality assurance tools and methodologies used in maintenance and engineering.

Unit 2:

Maintenance and Engineering Process Optimization:

- Analyzing maintenance and engineering processes to identify areas for improvement.
- Implementing continuous improvement strategies to enhance process efficiency and effectiveness.
- Utilizing Lean and Six Sigma principles in maintenance and engineering operations.
- Incorporating predictive maintenance techniques to minimize downtime and optimize asset performance.
- Monitoring and measuring key performance indicators KPIs to track process optimization efforts.

Unit 3:

Quality Control Techniques in Maintenance and Engineering:

- Understanding the principles of quality control and their application in maintenance and engineering.
- Implementing statistical process control SPC methods to monitor and maintain process quality.
- Conducting root cause analysis to identify and address quality issues in maintenance and engineering activities.
- Establishing inspection and testing procedures to ensure product and service quality.
- Developing corrective and preventive action plans to address non-conformances and prevent recurrence.

Unit 4:

Risk Management in Maintenance and Engineering:

- Identifying potential risks and hazards associated with maintenance and engineering operations.
- Assessing risk severity and likelihood to prioritize risk mitigation efforts.
- Developing risk management strategies to minimize the impact of potential failures on operations.

- Implementing preventive maintenance programs to mitigate equipment failure risks.
- Establishing contingency plans and emergency response protocols to address unexpected events.

Unit 5:

Quality Assurance Audits and Compliance:

- Planning and conducting quality assurance audits in maintenance and engineering.
- Evaluating compliance with regulatory requirements, industry standards, and organizational policies.
- Documenting audit findings and communicating recommendations for improvement.
- Implementing corrective actions and monitoring their effectiveness.
- Continuously improving quality assurance processes based on audit results and feedback.