



Mastering Maintenance Fundamentals Training Course

22 – 26 November 2026
Cape town

Mastering Maintenance Fundamentals Training Course

Ref: 36233_110309 **Date:** 22 – 26 November 2026 **Location:** Cape town **Fees:** 6000 Euro

Course Overview:

The Course is designed to equip maintenance professionals with the essential skills and knowledge to excel in their roles. This comprehensive course covers critical topics such as the impact of maintenance on operations, preventive maintenance basics, and designing effective preventive maintenance programs. Participants will learn about maintenance planning, scheduled maintenance, and the roles and responsibilities of maintenance engineers. The course also delves into technical aspects like shaft alignment techniques, rotor balancing methods, and bearing maintenance. Additional topics include maintenance of couplings, gearbox maintenance, compressor maintenance, control valve maintenance, conveyor maintenance, and maintenance of fans and blowers. Further, the course covers dust collector maintenance, pump maintenance, steam trap maintenance, and maintenance performance measurement. By the end of this course, participants will have a well-rounded understanding of maintenance fundamentals, enabling them to improve efficiency, reduce downtime, and enhance overall performance.

Target Audience:

- Maintenance Managers
- Maintenance Engineers
- Reliability Engineers
- Maintenance Technicians
- Plant Managers
- Operations Managers

Targeted Organizational Departments:

- Maintenance Departments
- Engineering Departments
- Operations Departments
- Reliability Departments
- Production Departments

Targeted Industries:

- Manufacturing
- Oil and Gas
- Power Generation
- Chemical Processing
- Pharmaceuticals
- Food and Beverage

Course Offerings:

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

- Understand the impact of maintenance on operations.
- Implement effective preventive maintenance basics and programs.
- Plan and schedule maintenance activities.
- Perform shaft alignment techniques and rotor balancing methods.
- Maintain bearings, couplings, gearboxes, compressors, control valves, conveyors, fans, blowers, dust collectors, pumps, and steam traps.
- Measure and manage maintenance performance.

Training Methodology:

This course utilizes a mix of training methodologies to ensure a comprehensive learning experience. Participants will engage in case studies, group work, interactive sessions, and feedback sessions. These methods will help reinforce concepts like preventive maintenance basics, maintenance planning, and maintenance performance measurement. Real-world scenarios and hands-on exercises will be used to demonstrate technical skills such as shaft alignment techniques, rotor balancing methods, and bearing maintenance.

Course Toolbox:

- Detailed workbooks
- Preventive maintenance checklists
- Shaft alignment and rotor balancing templates
- Case study materials
- Access to online resources and reading materials



Course Agenda:

Day 1: Introduction to Maintenance Fundamentals

- **Topic 1:** Maintenance Impact
- **Topic 2:** Preventive Maintenance Basics
- **Topic 3:** Preventive Maintenance Program
- **Topic 4:** Maintenance Planning
- **Topic 5:** Scheduled Maintenance
- **Reflection & Review:** Discuss the importance and impact of maintenance fundamentals.

Day 2: Technical Maintenance Skills

- **Topic 1:** Shaft Alignment Techniques
- **Topic 2:** Rotor Balancing Methods
- **Topic 3:** Bearing Maintenance
- **Topic 4:** Maintenance of Couplings
- **Topic 5:** Gearbox Maintenance
- **Reflection & Review:** Reflect on the day's technical learnings.

Day 3: Equipment-Specific Maintenance

- **Topic 1:** Compressor Maintenance
- **Topic 2:** Control Valve Maintenance
- **Topic 3:** Conveyor Maintenance
- **Topic 4:** Maintenance of Fans and Blowers
- **Topic 5:** Dust Collector Maintenance
- **Reflection & Review:** Review key maintenance techniques for various equipment.

Day 4: Advanced Maintenance Strategies

- **Topic 1:** Pump Maintenance
- **Topic 2:** Steam Trap Maintenance
- **Topic 3:** Maintenance Engineering Roles
- **Topic 4:** Maintenance Performance Measurement
- **Topic 5:** Advanced Maintenance Planning
- **Reflection & Review:** Evaluate advanced strategies and their applications.



Day 5: Practical Application and Review

- **Topic 1:** Case Study Analysis
- **Topic 2:** Hands-on Maintenance Planning Exercise
- **Topic 3:** Group Discussion on Maintenance Best Practices
- **Topic 4:** Maintenance Performance Management
- **Topic 5:** Final Q&A Session
- **Reflection & Review:** Final review and course summary.

How This Course is Different from Other Mastering Maintenance Fundamentals Training Courses:

The Mastering Maintenance Fundamentals Training Course stands out due to its comprehensive approach, covering a wide range of topics from preventive maintenance basics to advanced technical skills like shaft alignment techniques and rotor balancing methods. The course is designed to be highly interactive, with a focus on real-world applications and hands-on exercises. Participants will benefit from detailed case studies and group work that reinforce the practical aspects of maintenance planning and performance measurement. Additionally, the course provides access to innovative tools and resources, ensuring that attendees leave with a deep understanding of maintenance fundamentals and the skills to apply them effectively in their roles.