



The Certified Maintenance & Reliability Technician CPD Training Course

07 - 11 May 2025
Cape town



The Certified Maintenance & Reliability Technician CPD Training Course

Ref.: 36314_23505 **Date:** 07 - 11 May 2025 **Location:** Cape town **Fees:** 6000 **Euro**

Course Overview:

The course is a complete program designed to equip participants with the essential skills and knowledge required for a successful career in industrial maintenance. This course addresses the needs of multicrafted maintenance technicians, offering a holistic view of the field that encompasses mechanical, electrical, and welding maintenance. Participants will gain expertise in key areas such as mechanical power transmission, bearings, lubrication, pump and compressor maintenance, fluid power, piping systems, electrical fundamentals, programmable logic controllers, and welding techniques. This training is aligned with the Society for Maintenance & Reliability Professionals SMRP Certified Maintenance & Reliability Technician CMRT certification exam, ensuring that participants are well-prepared for certification. The course emphasizes preventive maintenance techniques, safety and installation, and provides a detailed understanding of industrial print reading skills. By the end of the course, participants will be proficient in maintenance and reliability practices, making them valuable assets to their organizations.

Target Audience:

- Maintenance Technicians
- Reliability Technicians
- Industrial Maintenance Technicians
- Mechanical Engineers
- Electrical Engineers
- Welding Technicians
- Preventive Maintenance Specialists
- Maintenance Managers
- Reliability Engineers
- Facilities Managers

Targeted Organizational Departments:

- Maintenance Department
- Reliability Engineering Department
- Facilities Management
- Mechanical Engineering Department
- Electrical Engineering Department
- Welding Department
- Operations and Production Department

Targeted Industries:

- Manufacturing
- Oil and Gas
- Utilities
- Transportation
- Aerospace
- Automotive
- Chemical Processing
- Food and Beverage

Course Offerings:

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

- Apply advanced mechanical maintenance techniques.
- Implement effective electrical maintenance strategies.
- Perform welding maintenance with proficiency.
- Develop and implement preventive maintenance plans.
- Utilize fluid power maintenance skills.
- Maintain and troubleshoot piping systems.
- Understand and apply power transmission maintenance techniques.
- Enhance safety and installation practices.
- Master the use of programmable logic controllers.
- Conduct precise mechanical power transmission and bearings maintenance.
- Utilize test equipment effectively for maintenance tasks.
- Interpret industrial print readings accurately.
- Implement motor control circuits and electronic variable-speed drives.
- Prepare for the SMRP CMRT certification exam with confidence.

Training Methodology:

The training course employs a variety of engaging and interactive training methodologies. Participants will benefit from case studies, group work, and interactive sessions that provide practical insights into real-world maintenance challenges. The course also includes feedback sessions, allowing participants to reflect on their learning and receive constructive instructor feedback. Hands-on exercises and demonstrations will be used to reinforce key concepts, ensuring that participants gain a thorough understanding of the material. This multifaceted approach ensures that learners are engaged and able to apply their newfound knowledge effectively in their workplaces.

Course Toolbox:

- complete workbooks
- Interactive Online Resources
- Industry-Specific Reading Materials
- Practical Exercises and Case Studies
- Detailed Industrial Print Reading Samples



Course Agenda:

Day 1: General Knowledge

- **Topic 1:** Safety
- **Topic 2:** Tools and Fasteners
- **Topic 3:** Industrial Print Reading
- **Topic 4:** Safety and Installation
- **Topic 5:** Overview of Multicrafted Maintenance Skills
- **Topic 6:** Introduction to SMRP Certification
- **Reflection & Review:** Reflect on key learnings from general knowledge and how they apply to maintenance and reliability practices.

Day 2: Mechanical Knowledge

- **Topic 1:** Mechanical Power Transmission
- **Topic 2:** Bearings and Coupled Shaft Alignment
- **Topic 3:** Lubrication Techniques
- **Topic 4:** Seals and Packing
- **Topic 5:** Pumps and Compressors Maintenance
- **Topic 6:** Fluid Power Systems
- **Reflection & Review:** Review the day's topics with a focus on mechanical maintenance skills and practical applications.

Day 3: Electrical Knowledge

- **Topic 1:** Electrical Fundamentals for Technicians
- **Topic 2:** Test Equipment for Maintenance Technicians
- **Topic 3:** Basic Resistive Electrical Circuits
- **Topic 4:** Reactive Circuits and Power Factor Correction
- **Topic 5:** Wiring Methods and National Electrical Code
- **Topic 6:** Transformers and Power Distribution
- **Reflection & Review:** Reflect on electrical knowledge gained and discuss how these skills enhance maintenance reliability.

Day 4: Advanced Electrical and Control Systems

- **Topic 1:** Electrical Machinery and Control Devices
- **Topic 2:** Motor Control Circuits
- **Topic 3:** Basic Industrial Electronics
- **Topic 4:** Electronic Variable-Speed Drives
- **Topic 5:** Programmable Logic Controllers PLCs
- **Topic 6:** Industrial Lighting Systems
- **Reflection & Review:** Review advanced electrical and control system topics, emphasizing their role in maintenance and reliability.



Day 5: Welding Knowledge and Preventive Maintenance

- **Topic 1:** Gas Welding Techniques
- **Topic 2:** Arc Welding Skills
- **Topic 3:** Developing Preventive Maintenance Plans
- **Topic 4:** Implementing Mechanical Preventive Maintenance
- **Topic 5:** Implementing Electrical Preventive Maintenance
- **Topic 6:** complete Overview of Maintenance and Reliability Certification Preparation
- **Reflection & Review:** Reflect on welding knowledge and preventive maintenance strategies, tying together all course topics for exam preparation.

How This Course is Different from Other Maintenance and Reliability Courses:

The Certified Maintenance & Reliability Course stands out from other similar courses due to its complete coverage of mechanical, electrical, and welding maintenance skills. The course is uniquely designed to prepare participants for the SMRP CMRT certification exam, ensuring they gain industry-recognized credentials. The training methodologies employed, including hands-on exercises, case studies, and interactive sessions, provide a practical learning experience that is directly applicable to the workplace. The course toolbox, which includes complete workbooks, online resources, and access to SMRP study guides, offers extensive support to participants throughout their learning journey. This course not only enhances participants' technical skills but also equips them with the knowledge and tools needed to excel in their roles as maintenance and reliability professionals.

Training Course Categories



**Finance and
Accounting Training
Courses**



**Agile PM and Project
Management Training
Courses**



**Certified Courses By
International Bodies**



**Communication and
Public Relations
Training Courses**



**Data Analytics Training
and Data Science
Courses**



**Environment &
Sustainability Training
Courses**



**Governance, Risk and
Compliance Training
Courses**



**Human Resources
Training and
Development Courses**



**IT Security Training & IT
Training Courses**



**Leadership and
Management Training
Courses**



**Legal Training,
Procurement and
Contracting Courses**



**Maintenance Training
and Engineering
Training Courses**



Training Course Categories



Marketing, Customer Relations, and Sales Courses



Occupational Health, Safety and Security Training Courses



Oil & Gas Training and Other Technical Courses



Personal & Self-Development Training Courses



Quality and Operations Management Training Courses



Secretarial and Administration Training Courses

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Bangkok - Thailand



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Cairo - Egypt



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Casablanca - Morocco



Doha - Qatar



Dubai - UAE



Geneva - Switzerland



Istanbul - Turkey



Jakarta - Indonesia



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Langkawi - Malaysia



London - UK



Madrid - Spain



Manama - Bahrain



Milan - Italy



Nairobi - Kenya



Paris - France



Phuket - Thailand



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Tokyo - Japan



Vienna - Austria



Zanzibar - Tanzania



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WHO WE ARE

Agile Leaders is a renowned training center with a team of experienced experts in vocational training and development. With 20 years of industry experience, we are committed to helping executives and managers replace traditional practices with more effective and agile approaches.

OUR VISION

We aspire to be the top choice training provider for organizations seeking to embrace agile business practices. As we progress towards our vision, our focus becomes increasingly customer-centric and agile.

OUR MISSION

We are dedicated to developing value-adding, customer-centric agile training courses that deliver a clear return on investment. Guided by our core agile values, we ensure our training is actionable and impactful.

WHAT DO WE OFFER

At Agile Leaders, we offer agile, bite-sized training courses that provide a real-life return on investment. Our courses focus on enhancing knowledge, improving skills, and changing attitudes. We achieve this through engaging and interactive training techniques, including Q&As, live discussions, games, and puzzles.



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