

Course Overview:

This specialized course equips technical professionals with critical skills to maintain, troubleshoot, and optimize essential process equipment. Tailored for operational environments like Maaden, it focuses on fired heaters, boilers, air coolers, heat exchangers, pumps, and compressors—ensuring safety compliance and performance enhancement. Participants will gain insights into real-world issues and implement effective maintenance and reliability strategies.

Course Objective:

- Diagnose and resolve common issues across six key types of industrial equipment
- Implement advanced maintenance practices to improve equipment lifespan and reliability
- Apply safety protocols and regulatory compliance standards in equipment operations
- Optimize performance and efficiency of process equipment systems
- Conduct failure analysis and apply corrective actions in real operational settings

Course Outline:

Module 1: Fired Heater Operations and Maintenance

- Design Principles of Fired Heaters
- Routine Maintenance and Safety Procedures
- Advanced Troubleshooting Techniques

Module 2: Boiler Systems: Functionality and Servicing

- Boiler Types and Applications
- Maintenance Strategies for Boiler Efficiency
- Troubleshooting Common Boiler Issues

Module 3: Air Cooler Management

- Operational Principles of Air Coolers
- Preventive Maintenance and Inspections
- Optimization of Air Cooler Performance

Module 4: Heat Exchanger Maintenance and Efficiency

- Types of Heat Exchangers and Their Maintenance
- Efficiency Improvement Methods
- Failure Analysis and Corrective Actions

Module 5: Pumps: Operation, Maintenance, and Repair

- Different Pump Types and Their Mechanics
- Advanced Maintenance and Repair Techniques
- Enhancing Pump Reliability and Lifespan

Module 6: Compressors in Industrial Processes

- Compressor Types and Functioning
- Maintenance Schedules and Best Practices
- Troubleshooting Compressor Issues

Module 7: Safety Standards and Compliance

- Safety Protocols for Process Equipment
- Regulatory Compliance in Industrial Settings
- Risk Management in Equipment Operations

Training Language:

English/Arabic

Training Methodology:

The course combines various teaching methods, including instructor-led presentations, group discussions, case study analyses, and assessments through quizzes and a final exam to engage participants and ensure they understand and retain the material.

Venue | Date | Fees

Riyadh | 03-08-2025 | 17,250 SAR

Module 8: Case Studies and Practical Workshops

- Real-World Scenarios from Maaden's Operations
- Interactive Learning and Skill Application
- Customized Training Modules for Specific Challenges

Who Should Attend:

- Senior Process Engineers
- Experienced Maintenance Professionals
- Subject Matter Experts in Process Equipment
- Technical Managers overseeing Industrial Operations