

Training
Course

**Advanced Maintenance &
Inspection Techniques**



Course Plan

Introduction

The "Advanced Maintenance & Inspection Techniques" course is designed to equip professionals with advanced knowledge and skills in the field of maintenance and inspection. This course covers cutting-edge techniques and best practices that ensure equipment reliability, safety, and cost-efficiency in operations. Participants will learn how to apply advanced diagnostic tools, predictive maintenance strategies, and effective inspection techniques that are essential for modern industries aiming for high performance and minimal downtime.

Course Objectives:

- ✓ To understand the latest tools and techniques in maintenance and inspection.
- ✓ To enhance the ability to detect and diagnose equipment issues proactively.
- ✓ To apply predictive and preventive maintenance strategies effectively.
- ✓ To optimize equipment reliability, safety, and lifespan.
- ✓ To minimize operational downtime and maintenance costs.
- ✓ To ensure compliance with international maintenance and inspection standards.
- ✓ To develop a strategic maintenance plan tailored to organizational needs.



Who Should Attend?

- Maintenance Engineers and Supervisors
- Inspection and Quality Control Professionals
- Plant Managers and Operation Engineers
- Mechanical, Electrical, and Instrumentation Technicians
- Professionals involved in asset management and reliability engineering
- Anyone interested in enhancing their skills in advanced maintenance and inspection.

Training Methods:

- ✓ Online Video material.
- ✓ Presentation.
- ✓ Live Interactive sessions.
- ✓ Course presenter will make extensive use of all tools that will be needed for the virtual environment.
- ✓ Questions & Answers

Course Outline:

Day One

- Introduction to Advanced Maintenance and Inspection Techniques
- Understanding Predictive vs. Preventive Maintenance
- Condition Monitoring and Diagnostic Tools
- Root Cause Analysis (RCA) for Equipment Failures

Day Two

- Non-Destructive Testing (NDT) Techniques
- Vibration Analysis and Thermography in Maintenance
- Digital Technologies in Maintenance (IoT, AI, and Machine Learning)
- Data Analysis for Maintenance Optimization

Day Three

- Reliability-Centered Maintenance (RCM) Strategies
- Developing a Maintenance Plan and Schedule
- Equipment Lifecycle Management
- Risk-Based Inspection (RBI) Techniques

Day Four

- Safety Protocols in Maintenance and Inspection
- Energy Efficiency in Maintenance Operations
- Compliance with International Standards (ISO, ASME)
- Inventory Management for Maintenance Parts

Day Five

- Use of Automated Systems and Robotics in Inspection
- Effective Documentation and Reporting Techniques
- Cost Analysis and Budgeting for Maintenance
- Case Studies on Successful Maintenance and Inspection Programs

Training Details

Course Duration

5 Days

Pre-Schedule

23 - 27 Dec 2024

Venue

DUBAI – The H Hotel

Training Fees Per Person

KWD 1250 (One Thousand Two Hundred Fifty)

Course Fees Include

- ✓ Tuition documentation
- ✓ Curriculum and Training Handout
- ✓ Five Star Lunch
- ✓ Completion Certificates

