

# MECHANICAL ENGINEERING FOR NON-MECHANICALS PROFESSIONALS

*"Understanding Mechanical Systems to Improve Operational Decisions and Asset Performance"*

## Schedule

Date	Venue	Fees (Face-to-Face)
17 - 19 Nov 2026	Doha, Qatar	USD 2,495 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

## Introduction

Non-mechanical professionals are frequently required to make decisions that impact mechanical equipment performance, maintenance costs, safety, and reliability. A lack of fundamental mechanical engineering knowledge can lead to miscommunication, incorrect decisions, and avoidable operational risks.

This intensive 3-day training is designed to provide non-mechanical professionals with a clear, practical understanding of essential mechanical engineering concepts. The course bridges the knowledge gap by explaining mechanical systems, equipment behavior, and maintenance fundamentals in a simple, non-technical manner—empowering participants to confidently interact with engineers, contractors, and maintenance teams.

## Objectives

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

- Understand basic mechanical engineering principles and terminology
- Recognize how mechanical systems operate within industrial facilities
- Interpret mechanical drawings, symbols, and specifications
- Identify common mechanical equipment and their functions
- Understand maintenance requirements and failure causes
- Communicate effectively with mechanical and maintenance teams
- Make informed operational and management decisions

## Why Attend

- Gain essential mechanical knowledge without complex mathematics
- Improve communication with engineers and maintenance personnel
- Enhance decision-making related to equipment and maintenance
- Reduce operational risks and misunderstandings
- Strengthen technical confidence in cross-functional roles
- Support safer and more reliable operations

## Target Audience

This program is designed for:

- Non-mechanical engineers (electrical, civil, instrumentation, IT)
- Operations, production, and facility managers
- Project managers and planners
- Procurement, contracts, and supply chain professionals
- HSE professionals interacting with mechanical systems
- Supervisors and team leaders in asset-intensive environments

## Individual Benefits

Key competencies that will be developed include:

- Practical understanding of mechanical equipment and systems
- Ability to ask the right technical questions
- Improved technical communication skills
- Enhanced confidence in operational and project discussions
- Better awareness of mechanical risks and safety considerations

## Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved coordination between technical and non-technical teams
- Reduced errors caused by misunderstanding mechanical issues
- Better equipment-related decision-making
- Enhanced safety and compliance awareness
- More efficient project execution and maintenance planning

## Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings - Simplified explanations of mechanical engineering concepts
- Case Studies - Real-world operational and maintenance examples
- Workshops - Interactive discussions and practical scenarios
- Peer Exchange - Experience sharing across different disciplines
- Tools - Easy-to-understand diagrams, checklists, and reference guides

## Course Outline

Detailed 3-Day Course Outline

Training Hours: 7:30 AM – 3:30 PM Daily Format: 3–4 Learning Modules Coffee Breaks: 09:30 & 11:15 Lunch Buffet: 01:00 – 02:00

Day 1: Mechanical Engineering Fundamentals

- Basic mechanical principles and terminology
- Forces, motion, stress, and material behavior
- Understanding mechanical drawings and symbols

Day 2: Mechanical Equipment & Maintenance Basics

- Pumps, compressors, turbines, and rotating equipment
- Bearings, seals, couplings, and lubrication basics
- Introduction to maintenance strategies and failure modes

Day 3: Reliability, Safety & Operational Awareness

- Common mechanical failures and prevention methods
- Mechanical safety and risk awareness
- Improving collaboration with mechanical and maintenance teams

## Certification

Participants will receive a Certificate of Completion in Mechanical Engineering Fundamentals for Non-Mechanical Professionals, validating their understanding of essential mechanical concepts required to support effective operations, maintenance coordination, and informed decision-making.

## Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
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