

MECHANICAL ENGINEERING FOR NON - MECHANICAL ENGINEERS

"Gain Practical Mechanical Engineering Knowledge to Enhance Decision-Making and Operational Effectiveness."

Schedule

Venue (In-house)	Fees
At Your Organization Premises	Ask For The Quotation

► **Available delivery methods:** In-House Training

Introduction

Mechanical engineering principles are integral to many industrial operations, yet professionals from other disciplines often struggle to apply or interpret these concepts in their work. Understanding basic mechanical systems, machinery operation, and engineering principles is essential for making informed decisions in production, maintenance, and project management.

The Mechanical Engineering for Non-Mechanical Engineers course provides practical insights into core mechanical engineering concepts. Participants will learn about machinery, thermodynamics, fluid systems, mechanical design, and maintenance essentials in a simplified, application-focused manner, without requiring an engineering background.

Objectives

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

- Understand fundamental mechanical engineering principles and terminology.
- Comprehend the operation of common mechanical systems and machinery.
- Interpret basic engineering drawings, schematics, and diagrams.
- Apply knowledge of thermodynamics, fluid mechanics, and mechanics in practical situations.
- Identify potential mechanical issues and understand their impact on operations.
- Collaborate effectively with mechanical engineers and technical teams.
- Make informed decisions regarding maintenance, design, and equipment operation.
- Enhance problem-solving skills for mechanical and operational challenges.

Why Attend

Professionals from non-mechanical backgrounds often face challenges in understanding and interacting with mechanical systems and engineering teams. This course equips participants with the knowledge and confidence to bridge the gap, enabling better decision-making, improved communication, and efficient operations in multidisciplinary industrial environments.

Target Audience

This course is suitable for:

- Electrical, Process, and Instrumentation Engineers
- Operations and Production Managers
- Maintenance Supervisors and Technicians
- Project Managers and Industrial Professionals
- Non-Mechanical Professionals interacting with mechanical systems
- Quality, Safety, and Reliability Specialists

Individual Benefits

- Gain practical understanding of mechanical systems and engineering concepts.
- Enhance problem-solving and decision-making in operations and maintenance.
- Improve collaboration with mechanical engineers and technical teams.
- Increase professional competence and confidence in industrial environments.
- Learn to identify and prevent mechanical failures and operational issues.

Organizational Benefits

- Reduce errors and inefficiencies in operations involving mechanical systems.
- Improve cross-functional communication and teamwork.
- Enhance equipment reliability and operational performance.
- Optimize maintenance, troubleshooting, and operational decision-making.
- Build internal understanding of mechanical engineering principles across departments.

Instructional Methodology

The training employs a practical and application-oriented approach:

- Expert-led simplified theory sessions
- Real-world examples and industrial case studies
- Hands-on demonstrations of mechanical systems and machinery
- Group problem-solving exercises and collaborative workshops
- Continuous feedback, Q&A, and applied assignments

Course Outline

- Module 1: Introduction to Mechanical Engineering Concepts
- Module 2: Mechanics, Forces, and Material Behavior
- Module 3: Thermodynamics and Heat Transfer Fundamentals
- Module 4: Fluid Mechanics and Pumping Systems
- Module 5: Mechanical Power Transmission – Gears, Belts, and Couplings
- Module 6: Basics of Machinery and Equipment Operation
- Module 7: Maintenance Essentials and Troubleshooting
- Module 8: Understanding Engineering Drawings and Schematics
- Module 9: Safety Considerations in Mechanical Systems
- Module 10: Industrial Case Studies and Practical Applications

Certification

Upon successful completion, participants will receive a Certificate in Mechanical Engineering for Non-Mechanical Engineers, recognizing their practical knowledge and ability to understand and apply mechanical engineering principles in industrial and operational environments.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

In-House / Customized Training

Interested in running this course for your team?

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