

FUNDAMENTALS OF LUBRICANTS

“Understand the Science, Selection, and Application of Lubricants for Maximum Equipment Efficiency and Longevity”

Schedule

Venue (InHouse)	Fees
At Your Organization Premises	Ask For The Quotation

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

Introduction

Lubricants play a critical role in minimizing friction, reducing wear, and extending the life of machinery across multiple industries. This course provides a foundational understanding of lubricants—covering their types, chemical compositions, performance characteristics, and real-world applications. Participants will gain essential knowledge to select, apply, and monitor lubricants effectively, ensuring improved reliability, safety, and efficiency of mechanical systems.

Objectives

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

- Understand the function and importance of lubrication
- Identify different types of lubricants and their properties
- Select appropriate lubricants for various equipment and conditions
- Apply best practices in lubricant storage, handling, and application
- Interpret lubricant testing and analysis results for preventive maintenance

Why Attend

- Build confidence in making informed lubrication choices
- Improve machinery performance and prevent costly failures
- Gain a practical, industry-relevant understanding of lubrication systems
- Stay compliant with OEM and ISO lubrication standards

Target Audience

- Maintenance engineers and technicians
- Mechanical and reliability engineers
- Operations and plant managers
- Asset integrity specialists
- Procurement and supply chain personnel (related to lubricants)

Individual Benefits

- Learn to reduce wear and energy losses in mechanical systems
- Make data-driven decisions on lubricant selection and change intervals
- Enhance safety, sustainability, and equipment performance
- Boost your technical profile in operations and maintenance

Organizational Benefits

- Reduce unscheduled equipment downtime and maintenance costs
- Optimize lubricant inventory and lifecycle management
- Train staff on best lubrication practices aligned with global standards
- Improve overall equipment reliability and safety

Instructional Methodology

- Expert-led presentations and discussions
- Hands-on demonstrations and case examples
- Visuals of wear patterns and lubricant performance
- Group activities and application-based exercises
- Diagnostic interpretation of oil/lubricant analysis reports

Course Outline

DETAILED 5-DAY COURSE OUTLINE (Customizable) Training Hours: 07:30 AM – 03:30 PM Daily Format: 3–4 Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1 - Lubrication Basics & Principles

- Module 1 (07:30 – 09:30): Introduction to Lubrication and Tribology
- Module 2 (09:45 – 11:15): Functions and Benefits of Lubricants
- Module 3 (11:30 – 01:00): Friction, Wear, and Lubrication Regimes

Day 2 - Types and Chemistry of Lubricants

- Module 4 (07:30 – 09:30): Base Oils: Mineral, Synthetic, and Biodegradable
- Module 5 (09:45 – 11:15): Additive Packages and Their Roles
- Module 6 (11:30 – 01:00): Greases, Oils, and Solid Lubricants Overview

Day 3 - Lubricant Selection and Application

- Module 7 (07:30 – 09:30): Choosing the Right Lubricant for Your Equipment
- Module 8 (09:45 – 11:15): Lubrication Methods: Manual, Automatic, Centralized
- Module 9 (11:30 – 01:00): Lubrication Charts, OEM Specs, and API Standards

Day 4 - Monitoring, Handling, and Troubleshooting

- Module 10 (07:30 – 09:30): Oil Sampling Techniques and Analysis Reports
- Module 11 (09:45 – 11:15): Lubricant Storage, Filtration, and Contamination Control
- Module 12 (11:30 – 01:00): Common Lubrication Failures and Diagnostics

Day 5 - Industry Applications and Sustainability

- Module 13 (07:30 – 09:30): Lubrication in Industrial, Automotive, and Marine Systems
- Module 14 (09:45 – 11:15): Environmental Considerations and Sustainable Lubricants
- Module 15 (11:30 – 01:00): Final Case Study, Group Exercise, and Certification Ceremony

Certification

Participants will receive a Certificate of Completion in Lubrication Fundamentals, validating their knowledge of industrial lubrication practices and principles.

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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