



*Training Course:  
Advanced Lubricant Formulation and Testing*

*20 - 24 April 2025*

*Dubai (UAE)*

*Residence Inn by Marriott Sheikh Zayed Road, Dubai*

## Training Course: Advanced Lubricant Formulation and Testing

Training Course code: EN235717 From: 20 - 24 April 2025 Venue: Dubai (UAE) - Residence Inn by Marriott Sheikh Zayed Road, Dubai Training Course Fees: 5300 € Euro

### Introduction:

This training program, designed by Global Horizon Training Center, delves into the advanced principles and practices of lubricant formulation and testing. The course is meticulously crafted to provide participants with cutting-edge knowledge on innovative additive technologies, tailored formulations for extreme conditions, advanced testing protocols, and much more. With a strong emphasis on real-world applications, this program aims to elevate the expertise of professionals in the lubricant industry.

### Objectives

- Explore cutting-edge additive technologies for superior lubricant performance.
- Develop expertise in tailoring formulations for extreme operating conditions.
- Master advanced testing protocols, including ASTM and ISO standards.
- Enhance skills in oil condition monitoring, predictive maintenance, and root cause analysis.
- Understand tribology and surface engineering for critical applications.
- Address formulation challenges for synthetic and biodegradable lubricants.
- Learn lubrication reliability program management and its integration with asset management.
- Gain insights into automotive and industrial grease technologies.
- Explore lubrication solutions for extreme environments, such as aerospace and offshore industries.

### Course Methodology:

This program uses a blend of interactive lectures, case studies, practical demonstrations, and group discussions. Participants will engage in hands-on problem-solving exercises and review real-world scenarios to apply learned concepts effectively.

## Organizational Impact:

By participating in this program, organizations will:

- Enhance the performance and reliability of machinery through optimized lubrication practices.
- Minimize downtime and maintenance costs by implementing predictive maintenance strategies.
- Ensure compliance with international standards and environmental regulations.
- Drive innovation and competitiveness in lubricant formulation and testing.
- Build a skilled workforce adept at managing lubrication reliability programs.

## Target Audience

- Lubricant formulation scientists and engineers
- Maintenance and reliability professionals
- Tribology specialists
- Quality assurance and testing personnel
- Product managers in lubricant manufacturing
- Researchers and academicians in tribology and lubrication
- Environmental compliance officers

## Outlines:

### Day 1: Cutting-edge Additive Technologies

- Overview of advanced additive technologies
- Innovations in friction modifiers, anti-wear agents, and detergents
- Tailoring formulations for extreme conditions e.g., high-temperature and high-pressure applications
- Case studies on additive performance in industrial and automotive lubricants

### Day 2: Advanced Testing Protocols and Oil Condition Monitoring

- Key standards for lubricant testing: ASTM and ISO
- Advanced oil sampling techniques and best practices
- Oil condition monitoring for predictive maintenance
- Trend analysis and root cause analysis of lubrication failures

#### Day 3: Tribology and Surface Engineering

- Fundamentals of tribology: friction, wear, and lubrication
- Advanced surface treatments to enhance performance
- Applications in critical and high-stress environments
- Exploring innovations in tribological testing methods

#### Day 4: Synthetic and Biodegradable Lubricants

- Challenges in formulating synthetic lubricants
- Comparative performance analysis: synthetic vs. mineral oils
- Environmental regulations and development of biodegradable lubricants
- Case studies on sustainable lubrication solutions

#### Day 5: Specialized Topics and Program Management

- Lubrication Reliability Program Management
  - Developing and implementing effective lubrication strategies
  - Tracking KPIs for lubricant performance
  - Integrating lubrication plans with asset management
- Automotive and Industrial Grease Technologies
  - Designing high-performance greases
  - Advanced rheological testing and grease manufacturing innovations
- Lubrication in Extreme Environments
  - Solutions for high-temperature, high-pressure, and cryogenic applications
  - Specialized lubricants for aerospace and offshore industries

- Risk mitigation strategies for extreme operating conditions

## Registration form on the Training Course: Advanced Lubricant Formulation and Testing

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Sheikh Zayed Road, Dubai **Training Course Fees:** 5300 € Euro

Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

### Delegate Information

Full Name (Mr / Ms / Dr / Eng): .....  
Position: .....  
Telephone / Mobile: .....  
Personal E-Mail: .....  
Official E-Mail: .....

### Company Information

Company Name: .....  
Address: .....  
City / Country: .....

### Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): .....  
Position: .....  
Telephone / Mobile: .....  
Personal E-Mail: .....  
Official E-Mail: .....

### Payment Method

- ☐ Please find enclosed a cheque made payable to Global Horizon
- ☐ Please invoice me
- ☐ Please invoice my company

### Easy Ways To Register

Telephone:  
+201095004484 to  
provisionally reserve your  
place.

Fax your completed  
registration  
form to: +20233379764

E-mail to us :  
info@gh4t.com  
or training@gh4t.com

Complete & return the  
booking form with cheque  
to: Global Horizon  
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