

# Certificate of Lubricant Competence 2024



*A complete basic lubricant training programme devised, developed and delivered by leading industry experts.*

Modules include:

1. Exploration & Refining
2. Base Oil Types and Characteristics
3. Basic Tribology
4. Lubricant Additives
5. Automotive Lubricants
6. Industrial Lubricants
7. Greases
8. Metalworking Fluids
9. Health, Safety, Environmental and Sustainability
10. Certification Session

DEvised, DEveloped AND DELIVERED BY INDUSTRY PROFESSIONALS

ATTEND 9 MODULES AND THE FINAL CERTIFICATION SESSION IS FREE



Base Oils



For more details visit [www.ukla.org.uk/training](http://www.ukla.org.uk/training)

## COURSE SUMMARY

UKLA is offering the opportunity to enrol in a one-year course of 10 modules which will provide an excellent foundation in the lubricants industry.

Certification is achieved only on completion of the whole course. Candidates attending all 9 taught modules over one or two consecutive years will be eligible to sit the final exam and achieve certification.

Each module has also been designed as a stand-alone course allowing delegates to attend specific modules in line with their exact requirements.

## THE COURSE CONTENT

Covering the fundamentals of exploration, manufacture and formulation of lubricants and greases together with their uses and final disposal of used lubrication products, including the Health, Safety, Environmental and Sustainability considerations concerning lubricants and greases.

Each module looks at theory, application and market developments affecting each area of lubrication. Modules are led by an industry expert in that particular field. We are in the privileged and unique position to be able to offer you the best industry experts for each module keeping the course relevant and up to date with current legislation and market developments. Please see below for a detailed outline of each module.

## WHO SHOULD ATTEND?

This course is primarily aimed at those who want to gain a thorough grounding in lubricants and lubrication, as well as those who need

to improve their skills and understanding by being brought up-to-speed on all the relevant information pertinent to the UK & European lubricants markets. It also provides a perspective on the global lubricant market.

This course would especially benefit newcomers and recently promoted lubricants personnel, or those who feel they would like to broaden their knowledge, e.g. technical and non-technical personnel, sales and marketing, customer support, legal and lubricants distribution staff.

## COURSE DETAILS

The course will be delivered through face to face sessions, providing delegates with maximum interactive opportunities with the trainer and fellow delegates.

There is an end of unit test for each of the nine modules; candidates wishing to gain certification may also attend a free of charge final exam, so long as all nine modules have been completed in a period of two consecutive years or less.

## COURSE DELIVERY

UKLA has partnered with industry-leading companies who will help deliver key modules of the course providing delegates with the latest insights and developments in critical areas of lubrication principles and practice.

## THE CERTIFICATE

The pass mark for certification is 50%, with 'Distinction' set at 75% or above. Marks are weighted equally from attendance, individual module test marks and the final examination mark. Full briefing notes are provided and we can also arrange catch-up sessions to enable delegates to stay on track for certification.

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## COURSE FEES

Fees are payable in advance and cover attendance and delegates' notes for each module as well as lunch and refreshments. Please note, travel and accommodation costs are not included in the face to face training option fees, with the exception of the two day module which will include dinner, overnight accommodation on the first evening and breakfast on the second day.

### UKLA Member Prices

Single Module	£365 excl. VAT
2 day Module	£465 excl. VAT
10 Module Course	£3,385 excl. VAT

### Non-UKLA Member Prices

Single Module	£465 excl. VAT
2 day Module	£565 excl. VAT
10 Module Course	£4,285 excl. VAT

*(Attend 9 modules and the final certification session is **free**)*

## THE TRAINERS

### **Ian Harris, Product Application Manager - Metalworking, Quaker Houghton**

After starting out as a Metallurgist, Ian began his 40 year association with the oil industry as an Analytical Chemist then progressing through various Midland's oil companies before settling at Houghton, then Houghton Vaughan. This journey involved analysis of re-refined oils and solvents, QC testing, formulation and development of products, improving production methods and plant design, H & S and CPL Regulations, BS 5750 Quality Improvements, plant and laboratory management, waste management and customer technical support. At Houghton, Ian managed Houghton's technical service laboratory before and after the transition to the current Trafford Park site before moving wholly into a technical customer support and training role for Houghton's staff and global customer base.

### **Tom Hyde, Technical Support Manager, TotalEnergies Marketing UK Limited, Lubricants Division**

Since graduating with a BSc in Chemistry in 1986, Tom has worked in a variety of roles and industries, starting with British Sugar, before moving onto water treatment and then lubricants. He has worked for Total UK for 19 years in lubricants and solvents and is currently heading up the lubricants technical team, providing technical expertise and training to clients and Total UK staff.

### **Bhaskar Mukherjee, MChemE, C.Eng. Senior Global Qualification Manager, Chevron Base Oils**

After graduating in 1986 in Petroleum Engineering from Indian School of Mines, Bhaskar joined Bharat Petroleum Corporation Limited (BPCL) in India. In a career spanning 10 years with BPCL, he worked in Operations, R&D and Lubricants Technical Service. He moved to Dubai in 1997 to join BP Middle East for a role in Technical Service and Supplies. He joined Chevron in 1999 in their Additives Division (Oronite) initially in Dubai and later in the UK (2004-2020) where he has worked in Sales and Product Management covering both Automotive and Industrial product lines. He joined Chevron's global base oil business development team in 2021 and is responsible for maintaining Chevron's Base Oil portfolio globally qualified to industry specifications.

### **Alan Outhwaite, CChem, MRSC. Former Global Business Development Manager, Chevron Base Oils**

Alan joined the industry in 1983 with specialist lubricant manufacturer Rocol, where he held a variety of technical service and R&D roles. In 1994 he became a Product Engineer for Chevron Base Oils working on automotive and industrial lubricants and subsequently held a variety of international technical, marketing and commercial positions. In 2005 he joined Chevron's Global Base Oil team as Business Development Manager, responsible for Chevron's base oil entry strategy into Europe, as well as supporting growth objectives in other regions, a role he continued until his recent retirement. He is now an industry consultant on base oils and lubricants.

### **Rod Pesch, CChem, MRSC.**

Rod has a long service history in the oil industry, amounting to over 50 years and still counting! Starting in 1965 with "Regent Oil" (forerunner of Texaco), Rod has worked in Technology, Marketing, Sales, Chemicals/Additives, OEM Liaison, Global Product Line Management and Global Marketing.

### **Steven Pritchard, Director, Olympus Safety Services Ltd**

Steven is a Director of Olympus Safety Services Ltd. He has nearly two decades experience in the lubricants industry, including over ten years in Product Safety Compliance with Fuchs Lubricants (UK) PLC, dealing with various UK & EU regulatory issues, notably the classification and labelling of products for supply and transport and authoring Safety Data Sheets.

Steven was a member of the UKLA Metalworking Fluids Product Stewardship Group for several years. He is currently a member of the Chemical Hazards Communication Society and British Association of Dangerous Goods Professionals, and is a fully qualified Dangerous Goods Safety Advisor.

### **Abigail Waller, Global Key Accounts Manager, Vickers Oils**

Following a degree in Pharmaceutical & Cosmetic Science, Abigail started her career in Quality Control, moving to technical service and then sales in the coatings industry. After ten years as an account manager in chemical distribution, Abigail joined Nynas as sales executive for the UK & Ireland, selling specialty oils into diverse industries including MWF, lubricants and greases as well as electrical, process and tyre oils.

In 2017 she became General Manager for UK & Ireland with overall P&L responsibility as well as still managing her own accounts both local, pan-European and global.

In October 2023 Abigail joined Vickers Oils as Global Key Accounts Manager selling high performance EAL's and greases into Marine, Textiles, Food and Industrial sectors.

### **Oliver Watton, Product Application Manager, Quaker Houghton**

After graduating with a degree in chemistry, Oliver started his career in product development at MacDermid Offshore solutions. This was followed by a move into formulation chemistry at a household, industrial and institutional cleaning product manufacturer in the North-West of England. Oliver joined Quaker Houghton in 2012 as a Formulation Chemist working primarily with metalworking cleaners. In this position a working formulatory knowledge of metalworking fluids, heat treatment oils and rust preventatives was acquired, as well as experience of their process applications. In early 2023, Oliver moved from the laboratory into a full-time field-based position as Product Application Manager with responsibility for soluble cutting fluids, neat cutting oils, drawing & forming fluids and metalworking cleaners. The role chiefly deals with troubleshooting, technical queries and product recommendations both to UK-based Quaker Houghton colleagues, and their external customers.

### **Dr Julian Wilkinson, Lead Chemist, O&G Technology, R S Clare**

Julian has worked in the field of lubrication since 2002 when he studied the oxidation of engine oils for his PhD in chemistry at York University. Since then, he has worked at Lubrizol in the Applications department and most recently at RS Clare for nearly 10 years working in grease product development and testing, and now leads the development of products for the oil and gas industry and providing technical support to the Sales team worldwide.

### **Dr. Ted Wright**

Following a period of research at Cambridge, Ted joined the Esso Research Centre and was responsible for electron microscopy and all aspects of elemental analysis. Moving into lubricants his positions within Esso included quality control, marketing and procurement. For a number of years he was on assignment as Technical Manager at Comma Oil. Ted is still very much involved in the lubricants industry especially with training and consults on problem solving. He also serves on the Technical Review Panel of the Verification of Lubricant Specifications (VLS).

## Module 1

22nd February 2024

### EXPLORATION & REFINING

Covering the basic geology and formation of oil bearing strata, the geographical distribution of known oil reserves, the history of exploration, the formation of the Major Oil companies and a brief Industry history, refining and the progression of refinery technology from initial techniques through to current trends in modern technology.

*Presented by Abigail Waller, Vickers Oils & Rod Pesch*

## Module 2

21st March 2024

### BASE OIL TYPES & CHARACTERISTICS

Concentrating on the way refining and crude oil origin defines the characteristics and properties of the resulting base oil and their subsequent best use. Covering areas such as Pour Point, Volatility, Oxidation Stability and the advantages and disadvantages of base oil's various properties to different types of blended lubricants.

*Presented by Bhaskar Mukherjee, Chevron Base Oils & Rod Pesch*

### Module 3

18th April 2024

#### BASIC TRIBOLOGY

This course module is designed to give a basic understanding of concepts such as ElastoHydroDynamic Lubrication, Boundary Lubrication and Extreme pressure conditions. This module also covers Anti-Wear, Fretting Corrosion and Tool Life in the context of the later course elements.

*Presented by Dr. Ted Wright*

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### Module 4

23rd May 2024

#### LUBRICANT ADDITIVES

An explanation of the basic additives used in the various categories of lubricants, their chemistry at a simplistic level, their function and their performance in respect of the Tribology covered in the previous element. This should not only relate to additives used in Automotive and basic Industrial lubricants, but should draw parallels with specialist areas such as Grease and Metalworking Fluids.

*Presented by Rod Pesch & Dr David Price, Lubrizol*

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### Module 5

20th June 2024

#### AUTOMOTIVE LUBRICANTS

An enormous topic covering not only engine oils for both gasoline and diesel engines but also transmission and hydraulic applications. This session will highlight the application of the different additive chemistries, relating both types and treat rates to levels of performance and specifications. The history of specifications up to and including the latest ACEA performance levels will be covered as well as the lubrication issues arising from Electric Vehicles.

*Presented by Alan Outhwaite, featuring presenters from Afton Chemical*

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### Module 6

18th July 2024

#### INDUSTRIAL LUBRICANTS

A comprehensive look at Hydraulic and Circulatory, Gear Oils, Open Gears, Slideway Oils etc. including particularly the importance of viscosity, and additive selection and relating strongly to both the Tribology and Additive elements. Basic guidance on selection of the correct lubricant and the importance of the Lubrication Survey and Rationalisation are included.

*Presented by Tom Hyde, TotalEnergies Marketing UK Limited*

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### Module 7

19th September 2024

#### GREASES

A science in itself, the use of grease, its different manufacturing considerations, additive types and the basic terminologies of Consistency, Penetration, Drop Point etc. are covered.

*Presented by Dr. Julian Wilkinson, R S Clare & Rod Pesch*

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### Module 8

16th & 17th October 2024

#### METALWORKING FLUIDS

Metalworking Fluids have become an increasingly important part of the product portfolio of most lubricant companies. This element explores the basic differences in chemistry and application between neat and watermix fluids, explains emulsions and emulsifiers at a simplistic level, covers the additive technology and different tribological implications when related to the previous modules. It provides a thumbnail sketch of the industries, which form the potential customer base.

*Presented by Ian Harris & Oliver Watton, Quaker Houghton*

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### Module 9

21st November 2024

#### HEALTH, SAFETY, ENVIRONMENTAL AND SUSTAINABILITY

This module covers the evolution of the Health and Safety of ingredients, risk assessment and a hands-on workshop to practice the technique. Risks from heavy metals, such as lead, together with the associated risks of using certain chemical components in formulations, such as sodium nitrite etc. in various categories of lubricants are addressed. It will also cover other issues such as biocides, sustainability and discussing environmental legislation and trends. During this session other aspects are also covered relating to biodegradable lubricants, vegetable and ester basestocks and fluids used in the environment.

*Presented by Rod Pesch, and Steven Pritchard, Olympus Safety Services Ltd*

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### Module 10

5th December 2024

#### CERTIFICATION SESSION

The final module comprises a one and half-hour comprehensive examination, covering all the work covered in each module. The day concludes with a formal presentation to students of the UKLA Certificate of Lubricant Competence. Two levels of pass are provided, 'Pass' and 'Distinction'.

# Certificate of Lubricant Competence 2024

Please complete the booking form by clicking and typing where required, then save and email to: [events@ukla.org.uk](mailto:events@ukla.org.uk)

Name(s) of Delegate(s):

(Please complete using Block letters)

Forename

Surname

1

2

3

Company:

Address:

Country:

Post Code:

Telephone:

Fax:

Contact E-Mail:

## PAYMENT

Module	UKLA/UEIL Member Price	Non Member Price	Please Tick
1. Exploration & Refining	£365 + VAT	£465 + VAT	
2. Base Oil Types & Characteristics	£365 + VAT	£465 + VAT	
3. Basic Tribology	£365 + VAT	£465 + VAT	
4. Lubricant Additives	£365 + VAT	£465 + VAT	
5. Automotive Lubricants	£365 + VAT	£465 + VAT	
6. Industrial Lubricants	£365 + VAT	£465 + VAT	
7. Greases	£365 + VAT	£465 + VAT	
8. Metalworking Fluids (double module)	£465 + VAT	£565 + VAT	
9. Health, Safety & Environment	£365 + VAT	£465 + VAT	
10. Ten Module Certification Course	£3,385 + VAT	£4,285 + VAT	

Pay for nine modules and the Certificate Session is free

Please send a VAT invoice

My Purchase Order No is:

Please note payment in advance is required. Bookings will only be confirmed upon settlement of invoice. Unconfirmed bookings will lose their priority if the course is over-subscribed. In the event of a delegate's withdrawal from the course, named substitutes are acceptable, but in the case of the certification course, certification may be jeopardised.

This booking is subject to our terms and conditions, and data protection policy. Please see the UKLA website for more details.

For more details visit [www.ukla.org.uk/training](http://www.ukla.org.uk/training)

# Introduction to Lubricants

*A one day foundation course on lubricants, tribology and the lubricant sector.*

If you are looking for an intensive, certificated course that will give you a complete overview of the lubricant sector in a single day, then Introduction to Lubricants is for you. Whether you are already working in the industry or new to the sector, this condensed course will provide you with the fundamentals of lubricants, lubrication and tribology.

## Learning Outcomes

- Learn about the origins of Lubricants including refining and exploration.
- Understand the different types of Base Oils from Group I to Group V.
- Assess different types of additives and their role in lubrication.
- Explain the different Viscosity & Viscosity Classifications of lubricants.
- Understand Automotive Lubricant Classifications including ACEA and API.
- Learn about lubrication fundamentals including Tribology and Wear Mechanisms.
- Discover Who's Who in the Lubricants Industry.
- Understand the role of Government Intervention in the industry.
- Explain the financial landscape impacting upon the sector.

**Who should attend?** Individuals looking to improve their knowledge of the core principles of lubricants and lubrication in a condensed one-day certificated course would benefit from this course. Sales engineers, assistants, administrators and those in customer-facing or business support roles including sales, marketing, IT, finance and HR as well as those new to industry or returning after a career-break would also benefit from attendance.

**Cost:** UKLA members £365 plus VAT, Non-members £465 plus VAT, including certification.

**Trainer:** Your trainer will be Rod Pesch CChem MRSC. With over 50 years experience in the Oil Industry few people can be as well placed to lead this industry introduction.

This is also available as an In-Company course, please enquire for details.

On completion candidates can progress to the Certificate of Lubricant Competence Course.

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# Executive Industry Briefing 2024

*A two day residential course giving senior industry managers an overview of the fundamental areas of the Lubricants industry including exploration, refining, manufacture and marketing.*

## Day one will cover topics such as:

- Crude Oil, Exploration & Refining
- Lubrication Fundamentals, Tribology & Wear Mechanisms
- Base Oil Types & Characteristics
- Additive Technology
- Power Generation & Marine
- Automotive

## Day two:

- Off-Highway & Mining Equipment
- Industrial Lubricants
- Cement Industry
- Railway Lubricants
- Greases
- Metalworking Fluids
- Used Oil Analysis
- Oil Industry Glossary of Terms
- Oil Industry Abbreviations

**Who Should Attend?** Senior managers working in leadership roles within the Lubricants Industry, as well as those who need to be brought up-to-speed on all the relevant information pertinent to the UK & European lubricants markets. It is particularly pertinent for those working in non technical areas of the industry, such as legal, marketing, HR and finance.

**Cost:** The cost for UKLA members will be £995 (excl VAT) and for non members £1,095 (excl VAT). This fee includes all course materials, meals and accommodation for the first night.

**Trainer:** The trainer will be Rod Pesch CChem MRSC. With over 50 years experience in the Oil Industry few people can be as well placed to lead this executive overview of the sector.