

# LUBRICATION ENGINEERING ADVANCED LE-A 155

## DO YOU:

- know what proportion of your costs are used to overcome friction and wear?
- have a procurement policy for tribological materials and components?
- have a policy on component failures?
- have maintenance and lubrication strategies for plant and products?
- monitor the types and consumption of lubricants in your plant?

## Johannesburg

### COURSE OBJECTIVES:

The course is designed to transfer a thorough understanding of tribology from a lubrication engineering perspective. Some twenty topics take participants through from basic chemistry, the theory of rubbing contact and friction in industrial applications, to the application of management principles, safety, and the environment.

### WHO SHOULD ATTEND?

The course is aimed at maintenance personnel but will be of benefit to anyone, including engineers, concerned with the operation, maintenance, condition monitoring or management of industrial plant, machinery, transport, and other lubricant related disciplines. Marketing personnel can also gain valuable knowledge from the course.

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*"Promoting knowledge and skills transfer in friction and wear to achieve a lower Total Cost of Ownership (TCO)."*

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### REQUIRED EXPERIENCE:

Delegates should have a good understanding of lubricants and their application. Delegates must have at least twelve months experience in the lubricant and maintenance professions.

**DATE:** 12 – 16 October 2026 – **Registrations Close: 21 September 2026**

**LOCATION:** Benvenuto Conference and Training Centre, 1 Pitsani Road, Kelland, Randburg, Johannesburg



### Contact Us:

Jo-anne or Berice by telephone or e-mail below for more information: SAIT, POSTNET Suite 598 Private Bag X10030 Randburg 2125 South Africa

Tel: +27 11 804-3710.

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Website: <http://www.sait.org.za>

### ADMIN:

For the purposes of travel, please note that the course ends at 14:00 on the final day, Friday.

Please note that group photographs are taken and published.

The SAIT reserves the right to cancel or postpone the course if undersubscribed, or for any other reason, or to change the venue, and is not liable for any costs incurred by delegates or their sponsoring companies.



**Course Content:** Lubrication Terminology, Production of Lubricant Base Fluids, Basics of Lubrication, Properties of Oil, Additives, Specifications, Greases, Synthetic Lubricants, Internal Combustion Engine Lubrication, Auto Drive Line Lubricants, Plain Bearings, Rolling Bearings, Gears & Gear Oils, Hydraulic Oils, Compressor Oils, Transformer Oils, Cutting Oils, Engine Coolants, Seals, Filtration, Condition Assessment & Failures, Used Oil Analysis, Lubrication Surveys, Lubrication devices, Storage and Handling of Lubricants and Environment.

**Case Studies:** Delegates are invited to bring their case studies, their problems, and their questions to the course for discussion.



Understanding Friction, Lubrication and Wear

**Homework:** Homework is required to be completed every evening; this ensures that the vast knowledge is transferred successfully. **Please ensure that you bring your laptop with you to the course, as homework is completed online on Google Forms. Sufficient time will need to be set aside for self-study and homework.**

**Examination:** An examination will complete the course, with a certificate for successful candidates.

**Knowledge transfer:** The lecturers of the course have a combined knowledge of over 170 years, to impart their learnt knowledge and experience in the tribology field to eager minds in a short space of time.

*Be prepared for a lot of information and a fast-paced course that will give you the knowledge to ask the correct questions and information to advance tribology.*

#### **Course Fee:**

R23 473.80 Inc VAT

#### **Payment to the SAIT is due on receipt of invoice.**

The fee includes course notes, lunch, and teas, but not accommodation. A list of the closest hotels is available on request.

Registration closes three weeks before the starting date of each course; please book early to ensure your position. Payment to the SAIT is due on receipt of invoice; registration will be confirmed when Proof of Payment or a Purchase Order Number is received.

The Course manual is available before the course to fully paid-up delegates.

**Our Lubrication Engineering Advanced LE-A Courses are ECSA Registered Category 1 CPD Activity Reference: SAIMENA 00307 5 CPD Credits.**

## Programme LE-A 155

### Day 1

- Registration, Coffee & Tea
- Welcome & Introductions
- Homework, Feedback & Study Guide (1)
- Lubrication Terminology (2)
- Fundamentals of Lubrication (3)
- Production & Characteristics of Lubricant Base Oils (4)
- Properties of Base Fluids (5)
- Lubricants Additives & Blending (6)
- Homework Preparation for Next Day Self

### Day 2

- Homework / Quiz
- Specifications (7)
- Grease (8)
- Plain Bearings (9)
- Rolling Element Bearings (10)
- Gears & Couplings (11)
- Hydraulic Systems & Fluids (12)
- Homework Preparation for Next Day Self

### Day 3

- Homework / Quiz
- Internal Combustion Engines (13)
- Auto Driveline (14)
- Compressors (15)
- Fundamentals Insulating Oils (16)
- Metalworking (17)
- Synthetic Lubricants (18)
- Homework Preparation for Next Day Self

### Day 4

- Homework / Quiz
- Filtration (19)
- Condition Monitoring & Oil Analysis (20)
- Condition Monitoring & Oil Analysis (20)
- Coolants (21)
- Seals (22)
- Lubrication Devices (24)
- Storage, handling, environment (26 & 27)
- Assessment failed components (23)
- Homework Preparation for Next Day Self

### Day 5

- Homework / Quiz / revision
- Tea & snacks
- Exam
- Lunch







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www.benvenuto.co.za to book or for more detail







**Directions**  
From OR Tambo International Airport to Benvenuto Conference Centre and Hotel

Take the R24 from the airport exit onto the N3 (Concrete Highway), signs to Pretoria & Western bypass.  
Take the N1 Highway South (signs to Roodepoort).

4th Off ramp is Beyers Naudé (M5). Turn left towards Johannesburg city. Follow signboards reading Northcliff

1st Traffic light turn left into Monkro Drive.  
1st Street on your right is Pitsani.



GPS Coordinates: S 26 07.03.1 E 027 57 31.7

**Contact us on:**  
Address 1 Pitsani Road, Kelland 2194  
Postal: PO Box 731555, Fairland 2030  
E-mail: [reservations@benvenuto.co.za](mailto:reservations@benvenuto.co.za)  
Website: [www.benvenuto.co.za](http://www.benvenuto.co.za)  
Tel: 27 11 678 6688 Fax: 086 589 3651



**Welcome to Benvenuto**  
*A boutique Tuscan Villa setting, ideally located just off the M5, Beyers Naudé off ramp, easily accessible from anywhere in the Gauteng business hub.*

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**BOOKS**  
*Ten (10) Conference and Break Away Rooms*, set-up with the equipment you need, in the style you require, to achieve your business and/or training goals.

**BOOKS**  
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**BOOKS**  
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## DISCLAIMER: TERMS AND CONDITIONS APPLY

The following terms and conditions govern your participation in the "Lubrication Engineering" training course offered by the Southern African Institute of Tribology (SAIT). By enrolling in this course, you agree to comply with the following terms:

- **Registration:** Completion of the registration process, including payment of the course fees, is required to secure a place in the "Lubrication Engineering" training course.
- **Course Content:** SAIT reserves the right to modify the course content, schedule, or instructors without prior notice. The institute will make reasonable efforts to inform registered delegates of any changes.
- **Cancellation and Refunds:** Delegates must adhere to the cancellation policy outlined by the SAIT. Refunds or credits will be considered and granted at the consideration of the SAIT, which may include administrative fees or deductions. If cancellation is made within 10 days of course commencement R3 000 will be invoiced to cover the cost to the venue.
- **Confidentiality:** All course materials, including but not limited to presentations, handouts, and resources provided during the training, are copyrighted and for the registered delegate's personal use only. Sharing, distributing, or reproducing these materials without explicit permission from SAIT is strictly prohibited.
- **Liability:** SAIT will not be held liable for any loss, damage, injury, or inconvenience caused directly or indirectly during the "Lubrication Engineering" training course. Delegates are responsible for their personal belongings and well-being during the course.
- **Certification:** Completion of the course does not guarantee certification. Achievement of certification is subject to fulfilling all course requirements and assessments as specified by SAIT. Certificates will only be released once full payment has been received.

By enrolling in the "Lubrication Engineering" training course, you acknowledge that you have read, understood, and agreed to abide by these terms and conditions.