

# Lubrication Engineering

Five day course - 5 CPD credits

## 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 and the theory of rubbing contact and friction in all industrial applications, to the application of management principles, safety and the environment in tribology.

Delegates are advised that they should understand what viscosity is, and should have at least twelve months experience in the lubricant and maintenance professions, with a minimum knowledge at trade test level

## Who Should Attend?

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

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

## Dates

8-12 May	Johannesburg
22-26 May	Durban
24-28 July	Johannesburg
21-25 August	Cape Town
16-20 October	Johannesburg

## Course Content

- ▶ Lubrication Terminology
- ▶ Production of Lubricant Base Fluids
- ▶ Basics of Lubrication
- ▶ Properties of Oil
- ▶ Additives
- ▶ Greases
- ▶ Lubrication Devices
- ▶ Synthetic Lubricants
- ▶ Fuels
- ▶ Internal Combustion Engine Lubrication
- ▶ Auto Drive Line Lubricants
- ▶ Plain Bearings
- ▶ Rolling Bearings
- ▶ Gears & Gear Oils
- ▶ Hydraulic Oils
- ▶ Compressor Oils
- ▶ Transformer Oils
- ▶ Cutting Oils
- ▶ Filtration
- ▶ Condition Assessment & Failures
- ▶ Used Oil Analysis
- ▶ Lubrication Surveys
- ▶ Storage and Handling of Lubricants

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

## Fees

Member R9 633  
 Non member R11 058  
 \*Student R3 907

In-house courses will be considered on request.

SAIT, Tel: (011) 804-3710  
 Fax-to-email: 086 719-2261

The fee includes course notes, lunch, teas and 14% VAT, but not accommodation. A list of the closest hotels is available on request. A fee of R500 will be charged if registration is cancelled within ten days of the course. Substitute delegates are welcome. Payment to The SA Institute of Tribology, on receipt of invoice. *Course manual is available before the course to fully paid up delegates. For the purposes of travel, please note that this is a full five days with last day ending at 15:00.*

\* Students to provide written proof of full time student registration.

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.

Contact Gill or Isabel at telephone, fax or e-mail below for more information:

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national Tribology Council (ITC). This body was initially a collection of interested tribology research units throughout Europe and the US. With growing interest and international liaison, the ITC was formed with Prof Jost as President.

SAIT joined in 1993 and delegates and presenters from SAIT have since attended every World Tribology Congress held in London, Vienna, Washington, Kyoto and Turin. These events bring together international authorities to share latest development in tribology.

#### **International conferences**

The SAIT International Tribology Conferences were started in 1986, inviting local and overseas participants and speakers. We have now had eleven such international conferences, which have kept SAIT in the international field and among the most eminent of tribology authorities.

The SAIT has a working liaison with the Society of Tribologists and Lubrication Engineers (STLE) and hosts their CLS, OMA and CMFS in Johannesburg each year.

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To date close on 4 000 students have been through the SAIT courses on Materials and Lubrication Engineering. Presenters are local authorities from industry who have had extensive experience in their topics and are well qualified to present all aspects of tribology. These courses are accredited with ECSA CPD points.

#### **ITC**

The SAIT had endeavoured since its inception to affiliate itself with an official international tribology body, the most important of which is the Inter-

#### **DST**

Under the auspices of the DST, the SAIT conducted a survey in 2010 on the cost of poor tribological practices to the industry and energy in particular. This project is currently ongoing in an endeavour to persuade industry to effectively utilise tribological practices to curb the current extreme losses. If these are adhered to, there will be substantial and meaningful benefits.

*Gill Fuller*  
SAIT Secretary