



### There are many benefits of taking this course... You will learn:

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| <p>1<br/>About common maintenance strategies and the role of the lubricant</p> <p>2<br/>About the science of machinery lubrication and the 'responsibilities' of the lubricant to reduce friction, reduce wear, control corrosion, and more</p> <p>3<br/>About mineral, synthetic and vegetable-based oils: their properties, additives and uses</p> <p>4<br/>About the performance properties of lubricants such as viscosity, rust and corrosion prevention, and anti-wear</p> | <p>5<br/>Lubricant selection guidelines for bearings, compressors, hydraulic systems, and more</p> <p>6<br/>Methods for applying grease and oil</p> <p>7<br/>About keeping lubricants clean and the impact of lubricant contamination</p> <p>8<br/>How to effectively store and dispense lubricants</p> <p>9<br/>Methods for sampling and monitoring the health of lubricants</p> |
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Mineral oils  
Synthetic oils  
Vegetable-based oils  
Grease and solid lubricants

#### Lubricant performance properties

Viscosity, flash point, antioxidants, detergents, friction modifiers

#### Lubricant selection

Oil vs grease vs solid vs gas  
Component types - bearings, gearboxes, hydraulics, ropes, chains and more  
Operating viscosity

#### Lubricant application

Grease and oil lubrication  
Delivery techniques  
The 'lube route'

#### Lubricant contamination and condition control

Sources of contamination  
ISO 4406 cleanliness standard  
Avoiding contamination

#### Lubricant storage and handling

Storage guidelines  
Lubricant dispensing

#### Lubrication sampling and analysis

Sampling practices  
Lubricant health monitoring  
Wear debris and wear particle analysis

### Topics Covered:

**Maintenance strategies and the role of machine lubrication**  
The science of machinery lubrication  
Tribology  
Friction  
Wear modes  
Lubrication regimes

**Lubricant construction**  
Base oils, additives, and thickeners

### Duration:

30 hours, typically over four days

### Format:

Live public course  
On-site course  
Virtual live instructor-led online course  
Self-paced distance learning online course

### Compliance:

Training: ISO 18436-4  
Certification: ISO 18436-1, ISO/IEC 17024

### Exam:

Two-hours  
70 multiple-choice questions  
70% passing grade  
Can be taken online or in-person at the course

### Certification requirements:

Training course completed  
12 months of work experience (with a minimum of 16 hours per month in lubricant-analysis-based condition monitoring)  
Pass the exam  
Valid for 5-years

