## **AGENDA**

### **UCAT-I Ultrasound Analysis Training**



# This course is intended for the ultrasound analyst and technician analyst who will:

Collect ultrasound data to detect fault conditions in rotating machinery, electrical equipment, and a host of other equipment including valves, hydraulics, steam traps, and more

Detect leaks in compressed air and steam systems

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Grease lubricate bearings with precision

Use the training and certification as the start of a new and rewarding career as an ultrasound technician

## What will you gain from taking this course?

There are so many benefits to taking this course. You will learn...

- About condition monitoring, including a summary of the most common technologies
- About reliability improvement
- How ultrasound testing and ultrasound-assisted lubrication plays a key role in reliability improvement
- About the fundamentals of sound: frequency, amplitude, wavelength, pitch, and period
- How it is measured and quantified: dB, RMS, peak, kurtosis, and crest factor

- How sound behaves: speed of sound, reflection, refraction, and transmission
- How ultrasound is detected in industrial settings
- How to take dependable, repeatable, high-quality readings
- About listening to ultrasound, and capturing and interpreting waveforms and spectra
- About how to set up software systems, including the naming of assets
- About impacts, friction, turbulence, cavitation, arcing, tracking, corona, and partial discharge
- How it can be used to detect faults in bearings, electrical systems, steam traps, valves, hydraulic equipment, pumps, compressors, and other equipment
- About how hydraulics, electrical systems, steam systems, compressors, bearings, pumps, valves, steam traps, and other components work – all with vivid, realistic 3D animations
- How to correctly lubricate bearings: not too much, not too little
- How to collect data and perform tests safely
- How to generate reports that will provide people with the information they really need

#### **Duration**

32 hours, typically over four days

#### **Format**

Live public course

On-site course

Virtual online course

Video distance learning online courses

#### **Compliance:**

- Training and certification: ISO 18436-8
- Certification: ISO 18436-1, ISO/ IEC 17024
- Training: ISO 18436-3

#### Exam:

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

# Certification requirements:

- Training course completed
- 6-months of work experience, verified by an
- Independent person
- Pass a hearing test











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