



A great class offered by a partnership with the State of Oklahoma and Southern Technology Center and OPMUG!



COURSE COSTS:

Oklahoma based company
Class: \$675
Test- (Level I): (included)
You save \$810 off retail cost!

Out-of-State company
Class: \$875
Test-(Level I) (included)
save \$610 off retail cost!



**2610 Sam Noble Parkway
Ardmore, OK 73401
(580) 224-8218**

“Ultrasound Level I”

OPEN TO OPMUG MEMBERS

Ultrasound Certification Level I
By: UE Systems

May 10th-14th 2010

8:00-5:00

Testing on the 14th is included in the price
DEADLINE TO ENROLL IS April15th!

**Southern Oklahoma Technology Center
Ardmore, OK**

NOTE THE NEW LOCATION OF THIS EVENT!
This is to better serve our membership

UE Training Systems offers comprehensive 32-hour instructional ultrasound training programs for Level I, II and III for Airborne Ultrasound Inspection. In fact, our Qualification, Training and Certification Program, UEQ-TC-1A is designed to meet the classroom requirements of the American Society of Nondestructive Testing Recommended Practice, SNT-TC-1A. Continuing Education Units from ASNT are made available for most of these courses.



Registration will be limited to the first 12 students that register!

<http://www.opmug.net/>

jphipps@sotc.org

580-224-8218

*****IMPORTANT***
STUDENTS SHOULD TRY TO BRING THEIR COMPANY’S ULTRASONIC EQUIPMENT IF AT ALL POSSIBLE.**

Questions concerning this can be directed to Jason Phipps at the Southern Oklahoma Technology Center

Course Schedule/Outline

8:00-5:00 subject to instructor's discretion

Day 1: Certification requirements for Level I, Level II and Level III reviewed, Theory Of Sound, Basic Physics of Ultrasound, Concepts of Amplitude, Velocity, Wave Modes, Ultrasound Wave Transmission and Effects, Effectiveness of Airborne Ultrasound, Typical Applications Overview, Technology Integration, Equipment/ Instrument Overview, ASTM Standard Test Methods, overview of recording and reporting inspection results.

Day 2: Leak Detection: Concepts of Leak Detection, Fluids Defined, Leak Rates, Acoustic Properties of a Leak, Types of Leaks, Leak Strategies, Leak Detection Methods: Pressure, Vacuum, Ultrasonic Sound Generation, Liquid Leak Amplification, Gross-to-Fine Method, Leak Confirmation Methods, Working in Noisy Environments, Shielding Techniques, Inspecting Heat Exchangers, Boilers, Condensers, Compressed Air Leak Survey: determining CFM loss, computing energy savings, recording and reporting survey results.

Day 3: Electrical Inspection: Safety Considerations, Overview of Types of Electrical Equipment, Voltages Defined, Acoustic Effects Versus Heat Generated Defects, Integration of Ultrasound and Infrared Methods, Detection Methods for High Voltage Equipment, Overview of Equipment for High Voltage Inspection, Detection Methods, Confirmation Methods, Substation Inspection, Radio Frequency Interference, Television Frequency Interference Detection Methods, Low Voltage Inspection Techniques. Contact approach, Mechanical Inspection overview, Valves, Compressor inspection, hydraulic valves,

Day 4: Steam Trap Inspection: Steam Applications, Steam Trap types, Acoustic properties, Inspection Techniques, Recording and reporting , Mechanical Inspection: Considerations of Ultrasonic Generation, Strategies of Mechanical Inspection, Review of Proactive and Predictive Maintenance Concepts, Generic Trouble Shooting Methods, Generic Trending Methods, Inspection of Compressors, Gears, Pumps, Motors, Fans, Isolating Sound Sources, Bearing Inspection/Trending Concepts, Condition Based Lubrication, Lubrication Starvation, Over Lubrication, Levels of Failure, Monitoring, Data Logging and Sound Recording methods, Connecting to Recording Devices, Vibration Meters and Computers, Sound Spectral Analysis, Recording and Reporting Results

Day 5: Review of Airborne Ultrasound Technology, Applications and Methods, Practical Experience Review, and General, Specific and Practical Examination



****Cancellation Policy****

A training class can be cancelled when, less than 75% funded and is less than 30 days from the start of class (training). In this case there will be a 100% fee refund for registered participants. If a registered participant cancels less than 10 days before the start of class (training) they will forfeit 50% of the registration fee.