Course Information
Division: ASET
Contact Hours: 45
Theory: 15
Lab Hours: 30
Total Credits: 2

Prerequisites: WELD-135, Ultrasonic-Level 1

Course Description
This is the continuation of the Level I course. However, the same aspects are studied at a higher level of difficulty and responsibility. The principles of sound wave propagation and attenuation, generation, nature, types and properties of sound waves and modes will be studied. There will be focus on the cause of defects. Testing methods and techniques, responses from a variety of flaws, equipment and its operating principles to detect flaws and their causes by using different detectors will be taught during the practical sessions. Standard reference blocks and calibration will be used. Procedure and codes for acceptance and rejection criteria for flaws will be taught.

Course Outcomes
In order to evidence success in this course, students will be able to:

1. Demonstrate an in-depth understanding of the ultrasonic testing (UT) inspection method
2. Identify ultrasonic inspection techniques and process variables
3. Select the tools and set ups for UT method
4. Explain the scope and limitations of UT methods
5. Interpret and analyze UT defects
6. Demonstrate competency in the scope and limitations of the UT methods
7. Prepare reports describing test results
8. Prepare for the ANST UT Level II test battery

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