NON-DESTRUCTIVE TESTING (ZNDT)

ZNDT-1000 Nondestructive Testing - Introduction
0.3 CEUs

This course introduces students to terms, definitions and an overview of the methods and applications of the nondestructive testing profession. Methods to be briefly covered include: visual, liquid penetrant, magnetic particle, radiography and ultrasonic testing. Certification versus qualification of NDT personnel will be discussed.
Contact hours: 3
Not financial aid eligible.

ZNDT-1003 Nondestructive Testing - Visual Inspection (VT) Levels 1 & 2
2.4 CEUs

Visual inspection is the most widely used method of nondestructive testing. This course covers the visual inspection techniques used to detect various discontinuities associated with the power plant industry, structural steel fabrication and construction industry, aerospace industry, petro-chemical industry and manufacturing processes. Borescopes and various weld inspection gages will be utilized in the lab.
Contact hours: 24
Not financial aid eligible.

ZNDT-1004 Nondestructive Testing - Liquid Penetrant (PT) Levels 1 & 2
3.2 CEUs

This course covers the principles and practices of liquid penetrant inspection. Learn why and when to use various types of penetrant materials; proper techniques necessary for a reliable inspection; how to evaluate liquid penetrant indications and interpret standards and specifications; and how to inspect welds, castings, forgings and machined components.
Contact hours: 32
Not financial aid eligible.

ZNDT-1005 Nondestructive Testing - Magnetic Particle (MT) Levels 1 & 2
3.2 CEUs

This course covers the principles and practices of magnetic particle inspection. Learn how and why to use different types of equipment, magnetization techniques, when and why to use wet or dry particles, evaluate magnetic particle indications, interpret standards and specifications and inspect welds, castings, forgings and machined components.
Contact hours: 32
Not financial aid eligible.

ZNDT-1006 Nondestructive Testing - Radiographic Inspection (RT) Level 1
4.2 CEUs

This course introduces radiographic principles, terms, definitions and basic theory. Students will gain an understanding of how an X-ray tube generates X-radiation; how to use X-ray film; film speed and film processing; digital imaging; and how to identify discontinuities.
Contact hours: 42
Not financial aid eligible.

ZNDT-1007 Nondestructive Testing - Radiographic Inspection (RT) Level 2
4.2 CEUs

This course continues the instruction in introduced in Radiographic Inspection (RT) Level 1. Emphasis will be on radiographic evaluation and interpretation to industry standard codes such as the American Society of Mechanical Engineers, American Welding Society Structural Welding Code and American Petroleum Institute. Students will develop and evaluate radiographic exposures using X-ray machines with images captured on digital technology equipment utilizing radiographic techniques commonly used in industrial applications.
Contact hours: 42
Not financial aid eligible.

ZNDT-1008 Nondestructive Testing - Ultrasonic Inspection (UT) Level 1
4.2 CEUs

This course introduces ultrasonic principles of sound wave propagation and term definitions. It will also introduce the student to calibration of the ultrasonic equipment, cover the linearity test and the various straight beam testing methods. Thickness measurements, Snells law and introduction to angle beam calibration and testing will also be covered.
Contact hours: 42
Not financial aid eligible.

ZNDT-1009 Nondestructive Testing - Ultrasonic Inspection (UT) Level 2
4.2 CEUs

This course continues the instruction introduced in Ultrasonic Inspection (UT) Level 1, with an emphasis on immersion inspection principles and the use of angle beam testing to locate and size welding flaws. Advanced inspection will be performed using normal beam testing and angle beam testing techniques. This course covers the application of advanced ultrasonic techniques to procedures, codes and specifications as they apply to industry. Techniques used in the power, construction, manufacturing and aerospace industries will be performed.
Contact hours: 42
Not financial aid eligible.

ZNDT-1014 Nondestructive Testing Internship
5.4 CEUs

Initial course in a fast-track training program in nondestructive testing. Course covers safety, math, blueprint reading, measurement and visual inspection techniques.
Contact hours: 54
Not financial aid eligible.