**NDT 100: Intro. To NDT -Welders – CRN 43957 and 44574 – 3.0 Credits**

**Instructor:** Zak Milligan

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**Office Hours:** when available or by appointment M-F

**Course Description:**

NDT 100 for welders is designed to provide students with a general overview, practical applications and understanding of Visual Inspection (VT), Magnetic Particle (MT), and Dye-Penetrant (PT), as they relate to weld inspection. Radiographic Testing (RT), and Ultrasonic Testing (UT) will also be demonstrated and covered. Furthermore, industrial processes, material processing, and pertinent terminology and concepts will be presented.

**Course Outcome:**

Upon completion of NDT 100, students will be instructed in;

* SAFETY: Students will have a firm understanding of NDT equipment safety standards in regards to PPE, NDT equipment use, and NDT lab safety procedures
* NDT Vocabulary: Students will demonstrate understanding of NDT terminology via quizzes, assignments and Examinations.
* Magnetic Particle, Dye Penetrant, Visual Inspection, Radiography, and Ultrasonic Testing processes, equipment use and procedures will be introduced, and reviewed on a weekly basis throughout the term.
* Career areas and specific jobs In the NDT field will be explored.

**Required Text/Supplies:**

* Scientific Calculator (not required - recommend the TI-30Xa or the TI-30XS)
* 3 –ring binder or similar folder for organizing course material

**Class Structure:**

* New information will be introduced weekly through Power Point presentations, zoom meetings and assignments.
* There will not be any hands on lab, but information will be supported with video examples of test methods and defect identification.
* Homework – homework will consist of studying for tests and quizzes, and other assignments.
* Quizzes – we will have vocabulary and method quizzes weekly
* Tests – each unit of study will conclude with a written and exam. There will be a mid-term and comprehensive final exam

**Attendance:**

The number 1 reason employees are fired in the manufacturing industry is attendance and tardiness, consequently, our industry partners request that we hold our students accountable for attendance and punctuality. This term, due to the current situation, we will not be counting attendance, but there will be occasional mandatory zoom meetings and I encourage you to get familiar with Zoom prior to start of the term. This course will be scored based on assignments, quizzes and examinations.

**Course Evaluation:**

* Assignments, notes, quizzes, activities approx. **70%**
* Tests approx. **30%**

Students who may need accommodations due to documented disabilities, who have medical information that the instructor should know, or who need special arrangements in an emergency should speak with their instructor during the first week of class. If you believe you may need accommodations but are not yet registered with the Center for Accessibility Resources (CFAR), please visit the [CFAR Website](http://www.linnbenton.edu/cfar) for steps on how to apply for services or call 541-917-4789.

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