**NDT 199: NDT ASNT-NAS 410 Methods Review– CRN 44285 – 5.0 Credits**

**Instructor:** Zak Milligan

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

**Class Hours:** ~~Tuesday and Thursday 0900-1120~~ **Online**

**Course Description:**

NDT 199 is designed to provide students with a general review of the following methods; Visual Inspection (VT), Magnetic Particle (MT), Dye-Penetrant (PT), Radiographic Testing (RT), and Ultrasonic Testing (UT) . Course will be lecture based and will be a final preparation for students about to enter industry. Furthermore, industrial processes, material processing, and pertinent terminology and concepts will be presented.

**Course Outcome:**

Upon completion of NDT 199, students will be instructed in and demonstrate:

* SAFETY: Students will have a firm understanding of NDT equipment safety standards in regards to PPE, and NDT Equipment.
* 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 reviewed, and evaluated on a weekly basis throughout the term.
* Testing processes for specific applications will be shared via video and will be accompanied by follow along assignments.

**Required Text/Supplies:**

* No Text book required, information will be provided via slides and other publications.
* Scientific Calculator (recommend the TI-30Xa or the TI-30XS)
* 3 –ring binder or similar folder for organizing course material

**Class Structure:**

* New information will be presented weekly through power Point presentations, assignments, and zoom meetings. We will spend two weeks on each method.
* We will not have hands on lab time but will present videos showing application of tests for each method throughout the term.
* Homework – homework will consist of reviewing material provided, studying for tests and completing assignments.
* Quizzes – we will have vocabulary, and conceptual quizzes weekly
* Tests – each unit of study will conclude with a written 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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