**NDT 100: Intro. To NDT – CRN 26107 – 3.0 Credits**

**Instructor:** Zak Milligan

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

**Course Description:**

NDT 100 is designed to provide students with a general overview, practical applications of and understanding of Visual Inspection (VT), Magnetic Particle (MT), Dye-Penetrant (PT), Radiographic Testing (RT), and Ultrasonic Testing (UT). Furthermore, industrial processes, materials, and pertinent terminology and concepts will be presented.

**Course Outcome:**

Upon completion of NDT 100, students will be instructed in and demonstrate:

* 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, tests, and more importantly application of the concepts and ideas during NDT lab exercises
* Magnetic Particle, Dye Penetrant, Visual Inspection, Radiography, and Ultrasonic Testing processes, equipment use and procedures will be introduced, practiced, and evaluated on a weekly basis throughout the term.
* Career areas and specific jobs In the NDT field will be explored extensively

**Required Text/Supplies:**

* Safety glasses will be provided:
  + - …and if you wear prescription glasses, you will need prescription safety glasses as 20/20 vision is critical for NDT inspection processes
* Scientific Calculator (recommend the TI-30Xa or the TI-30XS
* 3 –ring binder or similar folder for organizing course material

**Class Structure:**

* Lectures – we’ll work together daily reviewing concepts, introducing new information, and learning new equipment and procedures
* Labs – every concept will be supported with hands-on lab instruction, equipment use and activities
* Homework – homework will consist of studying for tests and quizzes, take-home tests, and professional magazine article reviews presented to the class
* Quizzes – we will have vocabulary, conceptual and practical quizzes weekly
* Tests – each unit of study will conclude with a written and/or practical 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. Daily points are given for attendance, tardiness and work ethic. Your maximum overall course percentage/grade may not exceed your overall attendance percentage/grade.

**Course Evaluation:**

* Attendance approx. **25%**
* Assignments, notes, quizzes, activities approx. **50%**
* Tests approx. **25%**

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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