

MFG 263B : WELDING INSPECTION II

Transcript title

Welding Inspection II

Credits

3

Grade mode

Standard letter grades

Contact hours total

30

Lecture hours

30

Prerequisites

MFG 263A.

Description

Second and final of two courses based on gaining the knowledge to be prepared for the Certified Welding Inspector (CWI) Exam, which is administered by the American Welding Society once the qualification criteria has been achieved. This course is focused on the CWI part B (Practical: hands-on examination), and PART C (Code Book Applications) exam. This course develops student skill with weld inspection procedures, welding codes and standards, destructive and non-destructive inspection techniques.

Learning outcomes

1. Demonstrate the ability to perform the mathematical calculations needed for fabrication, documentation, and other requirements of a Certified Welding Inspector (CWI).
2. Create documentation of inspection process and results in accordance with applicable codes and standards.
3. Evaluate, using visual inspection methods and industry standard test kits, welds and weld discontinuities in accordance with welding codes and standards.
4. Identify and interpret applicable welding codes and standards in all contexts relevant to a CWI.
5. Evaluate, using non-destructive examination (NDE) and industry standard test kits, welds and weld discontinuities consistent with the requirements of a CWI.

Content outline

1. Math Requirements for CWI
2. Codes and Standards
3. Procedure Qualification Record, Welding Procedure Specification
4. Open Code Book review
5. Weld Inspection Practice
6. Non-Destructive Examination (NDE)
7. Practical Exam Review

Required materials

This class requires the purchase of textbooks and study guides.

Grading methods

Assessment for this course may include, either online or in person, written assignments, homework, timed tests, take home tests, oral presentations, and demonstrations of manual skills acquisition as needed to confirm achievement of the course outcomes.