



## MASTER COURSE OUTLINE

Prepared By: Shawn McDaniel

Date: August 2013

### COURSE TITLE

Weld Testing Methods

### GENERAL COURSE INFORMATION

Dept.: WLD

Course Num: 205

(Formerly:)

CIP Code: 48.0508

Intent Code: 21

Program Code: 814

Credits: 4

Total Contact Hrs Per Qtr.: 55

Lecture Hrs:22

Lab Hrs:22

Other Hrs:

Distribution Designation:

### COURSE DESCRIPTION (as it will appear in the catalog)

Upon successful completion of the course the student will understand the various methods used to test welds. Students will be capable of applying a variety of destructive tests to assess the soundness, ductility, and strength of various weldments. Students will also have a working knowledge of the common methods used in industry to non-destructively examine weldments for acceptability.

### PREREQUISITES

WLD 130 or Instructor Permission

### TEXTBOOK GUIDELINES

Text and materials as decided by welding faculty. (Example: Modern Welding Technology 6<sup>th</sup> Ed., By Howard Cary)

### COURSE LEARNING OUTCOMES

*Upon successful completion of the course, students should be able to demonstrate the following knowledge or skills.*

1. The student will understand Fillet break tests.
2. The student will understand Guided bend tests on plate.
3. The student will understand Guided bend tests on pipe.
4. The student will understand Tensile tests.
5. The student will understand Elongation tests.
6. The student will understand Visual tests.
7. The student will understand Magnetic Particle tests.
8. The student will understand Dye penetrant tests.
9. The student will understand Ultrasonic weld testing.
10. The student will understand Radiographic testing.

### INSTITUTIONAL OUTCOMES

### COURSE CONTENT OUTLINE

### DEPARTMENTAL GUIDELINES (optional)

There will be four major tests during the quarter. These tests will be 2/3 of your total grade for the class.

Projects, assignments, and review questions will make up the final 1/3 of your grade.

Tests, projects, assignments, and review questions will be scored on a point basis with a percentage of points for your final grade.

The grade awarded for the class is as follows:

95-100	4.0	86	3.1	77	2.2	68	1.3
94	3.9	85	3.0	76	2.1	67	1.2
93	3.8	84	2.9	75	2.0	66	1.1
92	3.7	83	2.8	74	1.9	65	1.0
91	3.6	82	2.7	73	1.8	60-64	0.7
90	3.5	81	2.6	72	1.7	0-59	0
89	3.4	80	2.5	71	1.6		
88	3.3	79	2.4	70	1.5		
87	3.2	78	2.3	69	1.4		

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**DIVISION CHAIR APPROVAL**

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**DATE**