



## MASTER COURSE OUTLINE

Prepared By: Shawn McDaniel

Date: November 2005

## COURSE TITLE

Structural Weld Process I

## GENERAL COURSE INFORMATION

Dept.: WLD

Course Num: 241

(Formerly:)

CIP Code: 48.0508

Intent Code: 21

Program Code: 814

Credits: 6

Total Contact Hrs Per Qtr.: 132

Lecture Hrs:

Lab Hrs:132

Other Hrs:

Distribution Designation:

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

This course focuses on student learning of structural connection mockups applying the Shielded Metal Arc and Flux Cored Arc Welding processes.

## PREREQUISITES

WLD 131 or Instructor Permission

## TEXTBOOK GUIDELINES

Text and materials as decided by welding faculty. (Example: *Modern Welding Technology* by Howard Cary)

## COURSE LEARNING OUTCOMES

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

1. Students will become familiar with techniques used in the welding of structural steel connections.

## INSTITUTIONAL OUTCOMES

## COURSE CONTENT OUTLINE

- With the SMAW welding process:
  - Fit
    - Beam to column connections
    - Column splices
    - Welded clips
  - Weld
    - Beam to column connections
    - Column splices
    - Welded clips
  - Inspect for acceptability
    - Beam to column connections
    - Column splices
    - Welded clips
- With the FCAW welding process:

- Fit
  - Beam to column connections
  - Column splices
  - Welded clips
- Weld
  - Beam to column connections
  - Column splices
  - Welded clips
- Inspect for acceptability
  - Beam to column connections
  - Column splices
  - Welded clips

**DEPARTMENTAL GUIDELINES** (*optional*)

Grades will be calculated as follows:

50% Based on completing all course competencies.

50% Based on Lab Participation, Cleanup on a daily basis, and following ALL Safety rules.

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**