



## MASTER COURSE OUTLINE

Prepared By: Shawn McDaniel

Date: November 2005

## COURSE TITLE

Structural Weld Process III

## GENERAL COURSE INFORMATION

Dept.: WLD

Course Num: 245

(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)

A structural welding course focusing on student application of Shielded Metal and Flux Cored Arc Welding processes on tubular structural weldments in accordance with drawings.

## PREREQUISITES

WLD 243 and WLD 153 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 and fabrication of tubular structures using standard construction methods.
  - a. Generate sub-components for weldments in accordance with drawings and written instructions
  - b. Hoist and fit using standard fabrication methods
  - c. Weld according to drawings
  - d. Assess acceptability of parts produced in accordance with specified codes

## INSTITUTIONAL OUTCOMES

## COURSE CONTENT OUTLINE

Using processes called out in the drawings; produce large outdoor structures including beam to tubular column, tube to tube connections and handrail connections in accordance with construction codes, and the following:

- Prepare components as directed in work instructions
- Fit and tack weld using safe fabrication practices
- Apply correct tack welding practices
- Weld assemblies in accordance with designated standards
- Inspect for acceptability

**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		

---

**DIVISION CHAIR APPROVAL**

---

**DATE**