

CENTER FOR INNOVATIVE TECHNOLOGIES  
MASTER COURSE DOCUMENT

## WLD 100 Welding Fundamentals

**Course Description:** A course on fundamental principles of welding and joining processes. Topics include: Oxy-acetylene welding and cutting techniques, plasma cutting, track cutting, and welding safety.

**Prerequisites(s):** None

**Corequisite(s):** No corequisite

Lecture Hours: 2	Lab Hours: 3	Credit Hours: 3
Lab Fee: \$150	Supplemental Fee: \$225	Purpose: Safety Equipment
<input type="checkbox"/> Transfer Assurance Guide Course (TAG)	<input type="checkbox"/> Transfer Module Course (TM)	
Course Format: Lec/Lab	Grading: A/B/C/D/F/I	
Delivery Method: <input type="checkbox"/> Web	<input type="checkbox"/> Hybrid	x Classroom
Semesters Offered: x Fall	x Spring	x Summer

### Course Primary Text:

Title: Welding Principles and Applications	Edition: 8th
Author(s): Jeffus	
Publisher: Delmar	

### Supplemental Materials:

Instructor supplied
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### Course Outcomes:

1	Students will have the ability to cut, weld, and braze using the oxy-acetylene torch
2	Students will have the ability to cut metal using a plasma torch
3	Students will have the ability to create structurally sound and visually correct welds using the SMAW process
4	Students will understand all aspects of welding safety.

### Course Topics:

Week	Chapter	Topic	Lab/Project
1	1	Introduction to welding	
2	2	Safety in welding	
3	30	Oxy fuel welding/cutting/ equipment/ setup/ operation	Lab #1
4	30	Oxy fuel welding/cutting/ equipment/ setup/ operation	Lab #2
5	31	Oxy fuel gases and filler metals	Lab #3
6	32	Oxy-acetylene welding	Lab #4
7	7	Flame cutting	Lab #5
8	8	Plasma cutting	Lab #6
9	9	Related cutting processes	Lab #7
10	3	Shielded Metal Arc Welding	Lab #8

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11	4	Shielded Metal Arc Welding of Plate	<i>Lab #9</i>
12	5	Shielded Metal Arc Welding of Plate	<i>Lab #10</i>
13	6	Shielded Metal Arc Welding Certification	<i>Lab #11</i>
14		Welding Projects	
15		Welding Projects	

**Methods of Evaluation/Assessment**

**Grading:**

AWS Written Exams – 20%

Chapter Written Exams – 20%

Lab Assignments – 60%

Course Keeper: Mark Willis

Date Completed: 12/15/18