

CATALOG INFORMATION

Dept and Nbr: WELD 130      Title: WELDING CERT. WORKSHOP  
Full Title: Welding Certification Workshop  
Last Reviewed: 11/20/2006

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	0.50	Lecture Scheduled	0.50	8	Lecture Scheduled	4.00
Minimum	0.50	Lab Scheduled	1.50	8	Lab Scheduled	12.00
		Contact DHR	0		Contact DHR	0
		Contact Total	2.00		Contact Total	16.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 8.00

Total Student Learning Hours: 24.00

Title 5 Category: AA Degree Applicable  
Grading: Grade or P/NP  
Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP  
Also Listed As:  
Formerly:

**Catalog Description:**  
This course covers issues related to qualifications and certification testing of welders. A.W.S. (American Welding Society), A.S.M.E. (American Society of Mechanical Engineers), P.Q.R. (Procedure Qualification Records), W.P.S. (Welding Procedure Specification) and preparation of ferrous and non-ferrous test samples are covered. Certification testing will be available to qualified individuals in areas of structural, re-bar, pipe and sheet metal utilizing various welding processes.

**Prerequisites/Corequisites:**  
Completion of WELD 70B or equivalent.

**Recommended Preparation:**

**Limits on Enrollment:**

**Schedule of Classes Information:**  
Description: This course covers issues related to qualifications and certification testing of welders. A.W.S., A.S.M.E., P.Q.R., W.P.S. and preparation of ferrous and non-ferrous test samples are covered. Certification testing will be available to qualified individuals in areas of

structural, re-bar, pipe and sheet metal utilizing various welding processes. (Grade or P/NP)

Prerequisites/Corequisites: Completion of WELD 70B or equivalent.

Recommended:

Limits on Enrollment:

Transfer Credit:

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	<b>Effective:</b>	<b>Inactive:</b>
<b>CSU GE:</b>	<b>Transfer Area</b>	<b>Effective:</b>	<b>Inactive:</b>
<b>IGETC:</b>	<b>Transfer Area</b>	<b>Effective:</b>	<b>Inactive:</b>
<b>CSU Transfer:</b>		<b>Effective:</b>	<b>Inactive:</b>
<b>UC Transfer:</b>		<b>Effective:</b>	<b>Inactive:</b>

**CID:**

**Certificate/Major Applicable:**

Certificate Applicable Course

## **COURSE CONTENT**

### **Outcomes and Objectives:**

Upon completion of this course, the student will be able to:

1. Demonstrate proper welding safety.
2. Set up various welding machines.
3. Recognize ferrous and non-ferrous metals.
4. Produce samples of welds using the welding processes covered in the course.
5. Take the appropriate certification test.

### **Topics and Scope:**

#### **A. Arc**

- 1) Safety
- 2) Machines
- 3) Electrodes

#### **B. TIG (tungsten inert gas) and MIG (metal inert gas)**

- 1) Safety
- 2) Machines
- 3) Consumables

#### **C. Metals**

- 1) Ferrous
- 2) Non-ferrous
- 3) Compatibility
- 4) Joining processes
- 5) Coatings and finishes

#### **D. Fabrication**

- 1) Interpreting plans
  - 2) Job set up
  - 3) Techniques
  - 4) Quality control
- E. Certification Testing
- 1) A.W.S.
  - 2) A.S.M.R.
  - 3) P.Q.R.
  - 4) W.P.S.

### Assignment:

1. Practical exercises that are based on the weekly topic.
2. Group and individual projects such as setting up equipment and preparation of certification test plates.
3. Notebook of course notes and handouts.
4. Safety, equipment and tool identification (quiz).
5. Performance exam.

### Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because skill demonstrations are more appropriate for this course.

Writing  
0 - 0%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

None

Problem solving  
0 - 0%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Performance exams, Exercises and projects

Skill Demonstrations  
70 - 80%

**Exams:** All forms of formal testing, other than skill performance exams.

Multiple choice, True/false, Completion

Exams  
5 - 10%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

Notebook

Other Category  
10 - 20%

**Representative Textbooks and Materials:**

Instructor prepared materials.