



ILLINOIS VALLEY COMMUNITY COLLEGE

COURSE OUTLINE

DIVISION: Workforce Development

COURSE: WSP 2208 OAW Oxy, Plasma Cutting, Air Carbon Arc

Date: Spring 2022

Credit Hours: 2

Prerequisite(s): Approval from Program Coordinator

Delivery Method:

<input checked="" type="checkbox"/> Lecture	1 Contact Hours (1 contact = 1 credit hour)
<input type="checkbox"/> Seminar	0 Contact Hours (1 contact = 1 credit hour)
<input checked="" type="checkbox"/> Lab	2 Contact Hours (2-3 contact = 1 credit hour)
<input type="checkbox"/> Clinical	0 Contact Hours (3 contact = 1 credit hour)
<input type="checkbox"/> Online	
<input type="checkbox"/> Blended	
<input type="checkbox"/> VCM	

Offered: Fall Spring Summer

CATALOG DESCRIPTION and IAI NUMBER (if applicable):

This course includes the theory, safety and operation of oxyacetylene cutting, plasma Cutting, and carbon arc use.

COURSE TOPICS AND CONTENT REQUIREMENTS:

Shop safety
Basic Printreading
Oxyfuel gas cutting equipment
Using Oxyfuel cutting equipment
Plasma arc cutting equipment
Using plasma arc cutting equipment
Air carbon arc cutting equipment
Using air carbon arc cutting equipment

INSTRUCTIONAL METHODS:

Classroom lecture, weld lab hands-on instruction

EVALUATION OF STUDENT ACHIEVEMENT:

1. Read all material before coming to class
2. Participate in classroom and lab discussions and lectures.
3. Attend all class and lab sessions
4. Complete all required assignments, exercises, tasks, quizzes and tests.
5. Self-asses welds, maximize lab time.

INSTRUCTIONAL MATERIALS:

Textbooks

Modern Welding textbook and workbook, G-W, 12th edition

Resources

Blackboard Publisher content available

Videos

Handouts

Lincoln Electric Welding technology center

Hobart institute of Welding technology

LEARNING OUTCOMES AND GOALS:

Institutional Learning Outcomes

- Communication – to communicate effectively;
- Inquiry – to apply critical, logical, creative, aesthetic, or quantitative analytical reasoning to formulate a judgement or conclusion;
- Social Consciousness – to understand what it means to be a socially conscious person, locally and globally;
- Responsibility – to recognize how personal choices affect self and society.

Course Outcomes and Competencies

1. Safe use of all equipment as well as all safety guidelines will be discussed and utilized.
2. Understand and demonstrate safe work practices in the welding shop in regards to oxyacetylene torch cutting equipment.
3. Understand and demonstrate safe work practices in the welding shop in regards to plasma cutting equipment.
4. Understand and demonstrate safe work practices in the welding shop in regards to carbon arc gouging and cutting.

5. Demonstrate the ability to cut mild steel with an oxyacetylene torch, in flat- straight and round cuts, bevel cutting, pipe- straight, round and bevel cuts.
6. Demonstrate the ability to cut mild steel with plasma cutting torch in flat- straight and round cuts, bevel cutting, pipe- straight, round and bevel cuts.
7. Demonstrate the ability to set up and use carbon arc equipment with mild steel, to gouge and bevel in both flat plate and pipe.
8. Demonstrate the ability to conduct a Visual Examination of these cuts and bevels to AWS criteria.