ILLINOIS VALLEY COMMUNITY COLLEGE

COURSE OUTLINE

DIVISION: Workforce Development

COURSE: WSP 1211 GMAW Stainless Steel, All Positions

Date: Spring 2022

Credit Hours: 2

Prerequisite(s): Approval from Program Coordinator

Delivery Method:		
	☒ **Lecture**	**1 Contact Hours (1 contact = 1 credit hour)**
	☐ **Seminar**	**0 Contact Hours (1 contact = 1 credit hour)**
	☒ **Lab**	**2 Contact Hours (2-3 contact = 1 credit hour)**
	☐ **Clinical**	**0 Contact Hours (3 contact = 1 credit hour)**
	☐ **Online**	
	☐ **Blended**	
	☐ **VCM**	

Offered: ☒ **Fall** ☒ **Spring** ☒ **Summer**

CATALOG DESCRIPTION and IAI NUMBER (if applicable):
Theory and practice in the preparation and welding of Stainless steel plate in all positions using GMAW process with solid wire electrode.

COURSE TOPICS AND CONTENT REQUIREMENTS:
Shop safety
Basic Print reading
Welding joints positions and symbols
Power sources, wire feeders for GMAW
Shielding gasses used in GMAW
GMAW electrode classification
PPE requirements
GMAW welding principles
GMAW metal transfer
GMAW welding techniques
GMAW Special ferrous welding applications

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. Establish an electric arc and deposit a 6” long bead in both stringer and weave style in all positions.
3. Demonstrate restarts as needed in both stringer and weave beads in all positions.

4. Demonstrate the ability to produce a surfacing weld in all positions.
5. Demonstrate the ability to produce a single pass fillet weld, in lap, tee and corner joints in all positions.
6. Demonstrate the ability to produce a multi-pass fillet weld, in lap, tee and corner joints in all positions.
7. Demonstrate the ability to conduct a Visual Examination of these welds to AWS criteria.