

Iowa SENSE Aligned Welding Curriculum

General Course Info

Course Number:	WEL 280
Discipline:	WEL – Welding
Course Title:	Flux Cored Arc Welding (Self-Shielded): SENSE 1
Short Title:	FCAW Self-Shielded: SENSE 1
Course Description:	Focuses on proper weld safety, machine setup and welding techniques for Flux Cored Arc Welding Self-Shielded. Students perform American Welding Society compliant welds on carbon steel in flat, horizontal, vertical and overhead positions. This course will prepare students to take an AWS welder certification test, which is recommended for its successful completion. It aligns to SENSE Level 1 Module 6 - Key Indicators 1, 2 and 8-12, as well as Module 2 - Key Indicator 7, Module 3- Key Indicator 3, and Module 9 – Key Indicator 2.
Credit Hours:	2
Pre/ Co-requisites:	WEL 228 is a pre or co-requisite. WEL 244 or WEL 245 is a pre-requisite.

Course Competencies

Course Competencies:	<ol style="list-style-type: none"> 1. Evaluate FCAW-Self Shielded equipment, accessories and consumables to ensure proper safety and operations 2. Produce fillet welds in all positions on carbon steel 3. Produce groove welds in all positions on carbon steel 4. Evaluate welds to ensure AWS D.1.1 standards are met
Course Sub-Competencies:	<ol style="list-style-type: none"> 1.1 Perform safety inspections 1.2 Complete minor external repairs to FCAW – Self Shielded equipment 1.3 Set up FCAW-Self Shielded equipment per WPS for welding on carbon steel 2.1 Complete a fillet weld in the flat position 2.2 Complete a fillet weld in the horizontal position 2.3 Complete a fillet weld in the vertical position 2.4 Complete a fillet weld in the overhead position 3.1 Complete a groove weld in the flat position 3.2 Complete a groove weld in the horizontal position 3.3 Complete a groove weld in the vertical position 3.4 Complete a groove weld in the overhead position 4.1 Analyze completed welds 4.2 Adjust welding technique

Assessment of Student Learning

SENSE Assessment:	<ol style="list-style-type: none"> 1. Written Test Score 75% minimum 2. Visual Inspection Passed
Recommended Third Party Certification:	American Welding Society Welder Certification Test - D.1.1 – Obtain 1G and 2G with backing strip certification

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