

SME Course Outline Report

College: Lakeland Community College

Specific Course: WELD 1300 Thermal Cutting, Gouging, Brazing, and Soldering

Prepared By: Charles Cross, Consultant

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Submitted To: Lorain County Community College

Consultant Credentials: Charles Cross has a B.S. in Technology Education, M.Ed. in Technology Education, and is an American Welding Society (AWS) Certified Welding Inspector (CWI), Certified Welding Educator (CWE), and Certified Welding Supervisor (CWS). Mr. Cross gained tenure in public education as an Industrial Arts/Technology Education Instructor prior to his current employment earning a Golden Apple Award. Mr. Cross has been at his current employer, Lincoln Electric for over six years and is currently the Senior Customer Training Instructor at the Welding Technology Training Center. Current focus areas are industrial/educational training around welding and welding technologies.

Evaluation Method: The rubric below was used to evaluate that core curricula meets industry standards.

Review Scale Definitions:

0: Evident

1: Not Evident

N/A: Not Applicable

1. Program/Course Overview: <i>The overall design of this course is made clear to the student.</i>	Evident	Not Evident	N/A
1.1 The program/course outcomes are clearly stated.	X		
1.2 Prerequisites and/or any competencies are clearly stated.			X
1.3 Learning outcomes are specific and appropriately designed for course.	X		
1.4 Course outcomes align to an occupational focus.	X		
Comments or recommendations: There is no prerequisite to this course. It is nice to see a dedicated course to thermal cutting accompanied with gouging, brazing and soldering. The topics can easily be overlooked in a welding program often just combined as a small portion in a course.			
2. Resources and Materials: <i>Instruction materials align with stated course outcomes.</i>	Evident	Not Evident	N/A
2.1 The course materials, activities, and outcomes are relevant/reflect industry workforce development needs.	X		
2.2 The instructional materials on course content provide quality options for different learning styles.	X		
2.3 The learning activities are designed at an appropriate level for the course.	X		
2.4 Equipment/technology support course learning outcomes and are relevant to industry.	X		
Comments or recommendations: A variety of materials are provided for students to work with. This is critical as the student may work with a variety of material thickness in industry.			

3. Learner Activities and Relevancy: <i>Course outcomes are relevant to students, industry and employers.</i>	Evident	Not Evident	N/A
3.1 Course outcomes provide content that is relevant to industry and employers.	X		
3.2 Instruction, activities, and assignments are relevant and engaging to students.	X		
3.3 Learning activities align to industry workforce development initiatives.	X		
Comments or recommendations: Project based learning is included in the course outline adding relevance to students and industry.			
4. Assessment and Measurement: <i>Assessment strategies use established ways to measure effective learning, evaluate student progress by reference, to stated learning outcomes, and are designed to be integral to the learning process.</i>	Evident	Not Evident	N/A
4.1 The course evaluation criteria/course grading policy is stated clearly on the outline.	X		
4.2 Course-level assessments measure the stated learning outcomes and are consistent with course activities and resources.	X		
4.3 Assessments are varied and appropriate to the content being assessed.	X		
Comments or recommendations:			

Overall Summary:

This course outline is a model for a course dedicated to thermal cutting, gouging, brazing, and soldering. It is nice to see references to AWS in the outline proving industry relevance. It is nice to see automated processes for example the plasma cutting table included in the course outline. There are factors around welding safety that are not listed in the course outline in section I. As a recommendation, it may be valuable to add ANSI Z49.1 as topic in the course outline to cover other safety topics not mentioned. Another safety reference that may add value to use is the American Welding Society Safety & Health Fact Sheets. It may also add value to remove the sizes in gauge and use inches as ferrous and nonferrous metal gauge sizes differ.

Reviewers Signature: Charles Cross

Date: 5/27/18

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