

SME Course Outline Report

College: Lakeland Community College

Specific Course: WELD 1330 Basic GTAW (TIG) Welding

Prepared By: Charles Cross, Consultant

Date Completed: 5/28/18

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: It is nice to see references from the American Welding Society to support this course align to industry standards.			
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: Possibly add a section in the outline comparing inverter machines to transformer machines used for GTAW. It is nice to see a variety of metals (steel, stainless, aluminum) to be welded with in this course.			

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: Course outline states that variety of instructional procedures may be utilized for a variety of learners.			
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: Course outline provides grading procedures that are diverse and cover the scope of this course. The performance indicators listed are relevant to industry standards.			

Overall Summary:

This course outline on Basic GTAW (TIG) Welding aligns to industry standards and is a model for duplication. 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. Under performance indicator number 6, the student is to follow the visual acceptance quality requirements of AWS D1.1 which deals with 1/8 (3mm) plate and thicker. It may be valuable to reference inspection criteria from other sources such as AWS D9.1: 2012 Sheet Metal Welding Code or AWS D17.1 2010 Specification for Fusion Welding for Aerospace Applications. It may also be valuable to remove the statement in Clause 2 from Section XIV, Part B. There may be methods other than inhalation, for example ingestion that someone may question.

Reviewers Signature: Charles Cross

Date: 5/28/18

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