

SME Course Outline Report

College: Lakeland Community College

Specific Course: WELD 1370 Basic Pipe Welding

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: It is nice to see the appropriate prerequisites for this pipe welding course. References of AWS, ASME, and API provide in the course description to support industry standards. It may however add value to be more specific on what code, standard, or section to follow. It may also be valuable to add that students will be using the SMAW welding process in the course description even though "uses of manual welding equipment" is mentioned.			
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: It is nice to see that ANSI Z49.1 is built into the course outline. It is also nice to see the students are using 6" scheduled 40 pipe to weld on whether they are welding to ASME or API.			

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: It is nice that students will choose which direction they want to focus on (API or ASME) which is a major benefit. Since this course is basic it only focuses on welding in the flat and horizontal positions. Students will also benefit from the knowledge on how to fit-up and prepare the pipe specimen before welding on it.			
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: Several instructional procedures may be used and the grading procedures involve a wide range of methods to evaluate student performance.			

Overall Summary:

This course outline on Basic Pipe Welding is a model and aligns to industry standards; however the top is stated this is a work-in process version, not yet approved. The course performance indicators consist of a student choosing whether they want to follow ASME or API pipe welding methods, but no specific standard, code, or section is mentioned. It is nice to see a portion in the outline dedicated to students preparing and fitting up the pipe. Since this is a basic course, it is nice to see the course just focusing on welding positions in the flat and horizontal positions to build confidence and not overwhelm the students. Several references to AWS, ASME, and API are present throughout the course outline supporting industry initiatives. As a recommendation, it may be valuable to add that the students will be welding with SMAW in the course description. An additional safety reference that may add value is the American Welding Society Safety & Health Fact Sheets.

Reviewers Signature: Charles Cross

Date: 5/29/18

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