

SME Report

College: OWENS Community College

Specific Course Reviewed: WLD 191 Introduction to Welding Processes 2 CR HR Course

Prepared By: Frank M Dragolich, Jr., Consultant

Date Completed: July 8, 2018

Submitted To: Lorain County Community College

Consultant Credentials: Frank Dragolich is a 29 year employee at The Lincoln Electric Company. He has worked in multiple departments over that 29 year stretch, including: consumables manufacturing, inspection, application engineering, and now technical training. During the 12 years he worked in the application engineering department, he had the opportunity to write hundreds of technical reports, and was used as an SME for multiple projects, including owner’s manuals, technical welding guides, consumables catalogs, etc. He co-wrote multiple articles for the AWS Welding Journal, and co-wrote the Lincoln Electric Flux Cored Welding Guide. He has also been an SME for the technical education department, and is in the process of writing the new Lincoln Electric Submerged Arc Welding Guide. He is an AWS Certified Welding Inspector, Certified Welding Educator, and an ASNT ACCP Level II Visual Testing Inspector and is currently the supervisor for The Lincoln Electric Accredited Testing Facility (ATF). He is trained and fluent in all welding processes, and expert level in SAW (submerged arc welding) and FCAW (Flux cored arc welding).

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

Review Scale Definitions:

Effective: Review component is a “best practice” and represents a model for replication.

Ineffective: Review component is weak and in need of significant improvement.

N/A: Not applicable

1. COURSE: Syllabus	Pages	Effective	Ineffective	N/A
Syllabus	6	X		

Comments or recommendations:

The Ohio TAACCCT grant disclosure needs added to the end of the syllabus. The course covers a lot in a 16 week program, and seems very comprehensive, and may be a bit too much for 16 weeks. It is also slightly out of order and the PowerPoints don’t align with the syllabus. There are no PowerPoints covering GMAW, even though it is a primary course objective. I would teach the class in the following order: Safety, OAW, PAC, SMAW, GTAW, and close with GMAW.

2. COURSE: Safety Videos	Effective	Ineffective	N/A
Introduction	X		
Module 1 : Electric Shock	X		
Module 2 : Fumes and Gases	X		
Module 3 : Fire and Explosions	X		
Module 4 : Miscellaneous Safety	X		
Module 5 : Personal Protective Equipment	X		
Module 6 : Cutting Systems	X		

Welding Safety FAQs	X		
Welding Safety Photo Hunt	X		
<i>Comments or recommendations:</i> Proven videos used globally for welding safety education. Well done and entertaining, which keeps the audience engaged.			

3. COURSE: PowerPoint Presentations	Pages	Effective	Ineffective	N/A
mod1safety1.pptx – Welding Safety Part 1	14	X		
mod1safety2.pptx – Welding Safety Part 2	12	X		
mod2oxyfuel1.pptx – Oxyfuel Cutting Basics	19	X		
mod2oxyfuel2.pptx – Oxyfuel Cutting Consumables; Equipment Setup and Shutdown	18	X		
mod2oxyfuel3.pptx – Performing Cutting Procedures	13	X		
mod3plamsa.pptx – Plasma Arc Cutting	20	X		
mod4carbonarcgouge1.pptx – Introduction to Air-Carbon Arc Cutting	15	X		
mod4carbonarcgouge2.pptx -Operating and Caring for A-CAC Equipment	9	X		
mod7smaw1.pptx – SMAW Equipment and Setup	18	X		
mod8smaw2.pptx – Shielded Metal Arc Electrodes	17	X		
mod9smaw3.pptx – SMAW Preparations	15	X		
mod9smaw4.pptx – SMAW Techniques	16	X		

Comments or recommendations:

mod1safety1.pptx: strike “for both iron and steel” .

mod2oxyfuel1.pptx: Section 2.1.2. An acetylene tank fuse plug melts @212°F (100°C), not 220°F (104°C) as stated. This is also a test question.

mod2oxyfuel3.pptx: The pictures are misnumbered on slide 7.

mod7smaw1.pptx: 1) Slide 3 a total mess. Needs reformatted.2) Error on slide 10. CV is used for FCAW and GMAW, not GTAW as stated.

There also needs to be some PowerPoints dedicated to GMAW, as it is a major course objective. As thorough as the course is, I am surprised to see this omission.

4. COURSE: Safety Video-Test	Effective	Ineffective	N/A
Safety Test -20 questions	X		
<i>Comments or recommendations:</i> The test is well versed and thought out. There was no answer sheet for review.			

1. COURSE: Quiz #1	Effective	Ineffective	N/A
Quiz #2 – 5 Questions	X		
<i>Comments or recommendations:</i> No changes or recommendations.			
2. COURSE: Quiz #2	Effective	Ineffective	N/A
Quiz #2 – 6 Questions	X		
<i>Comments or recommendations:</i> No changes or recommendations.			
3. COURSE: Final Exam	Effective	Ineffective	N/A
Final Exam – 25 Questions	X		
<i>Comments or recommendations:</i> No changes or recommendations.			

Overall Summary - The mid-term test was not available at time of review. The course covers a lot in a 16 week program, and seems very comprehensive, and may be a bit too much for 16 weeks. It is also slightly out of order and the PowerPoints don't align with the syllabus. There are no PowerPoints covering GMAW, even though it is a primary course objective. I would teach the class in the following order: Safety, OAW, PAC, SMAW, GTAW, and close with GMAW.

Reviewers Signature: Frank M Dragolich, Jr. **Date:** 7/9/2018

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