College: Lakeland Community College

Specific Course: WELD 2410 Welding Economics

Prepared By: Charles Cross, Consultant

Date Completed: 6/21/2018

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: The overall design of this course is made clear to the student.

<table>
<thead>
<tr>
<th></th>
<th>Evident</th>
<th>Not Evident</th>
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<tbody>
<tr>
<td>1.1 The program/course outcomes are clearly stated.</td>
<td>X</td>
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<tr>
<td>1.2 Prerequisites and/or any competencies are clearly stated.</td>
<td>X</td>
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<td>1.3 Learning outcomes are specific and appropriately designed for course.</td>
<td>X</td>
<td></td>
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<tr>
<td>1.4 Course outcomes align to an occupational focus.</td>
<td>X</td>
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Comments or recommendations:
It is nice to see a course dedicated to welding economics. It is appropriate to have a math course as a prerequisite. It may also add value to add lab time with this course to align outcomes.

2. Resources and Materials: Instruction materials align with stated course outcomes.

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<tbody>
<tr>
<td>2.1 The course materials, activities, and outcomes are relevant/reflect industry workforce development needs.</td>
<td>X</td>
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<td>2.2 The instructional materials on course content provide quality options for different learning styles.</td>
<td>X</td>
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<td>2.3 The learning activities are designed at an appropriate level for the course.</td>
<td>X</td>
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<tr>
<td>2.4 Equipment/technology support course learning outcomes and are relevant to industry.</td>
<td>X</td>
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Comments or recommendations:
Several resources of current welding technologies are mentioned throughout this course outline. Items students must furnish are listed in the course description.
### 3. Learner Activities and Relevancy: Course outcomes are relevant to students, industry and employers.

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<tbody>
<tr>
<td>3.1 Course outcomes provide content that is relevant to industry and employers.</td>
<td>X</td>
<td></td>
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<tr>
<td>3.2 Instruction, activities, and assignments are relevant and engaging to students.</td>
<td>X</td>
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<tr>
<td>3.3 Learning activities align to industry workforce development initiatives.</td>
<td>X</td>
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</tbody>
</table>

Comments or recommendations:
Welding economics is an important aspect in the welding industry for student’s future employers to remain competitive.

### 4. Assessment and Measurement: 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.

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<tbody>
<tr>
<td>4.1 The course evaluation criteria/course grading policy is stated clearly on the outline.</td>
<td>X</td>
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<tr>
<td>4.2 Course-level assessments measure the stated learning outcomes and are consistent with course activities and resources.</td>
<td>X</td>
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<tr>
<td>4.3 Assessments are varied and appropriate to the content being assessed.</td>
<td>X</td>
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</table>

Comments or recommendations:
A variety of instructional and grading procedures may be utilized to evaluate students.

### Overall Summary:
This course outline on Welding Economics is model and aligns to industry standards, however the top is stated this is a work in process version, not yet approved. It is nice to see a course dedicated to welding economics so students understand how to make improvements, suggestions, and/or work cost effective at a future employer. As a recommendation, it may add value to have some lab time to add additional relevance. This course outline mentioned ANSI Z49.1 which is nice to see in regards to safety. Another safety reference that may add value to use is the American Welding Society Safety & Health Fact Sheets.

Reviewers Signature: **Charles Cross**

Date: 6/21/18

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