MoManufacturingWINs Curriculum Review Rubric
Fall 2014/Spring 2015

Program Reviewed: Precision Machining Practices I

College: State Technical College

Reviewed By: David Grady

Date: May 25, 2015

Review scale definitions:

Exceptional: Review component is a "best practice" and represents a model for replication.

Very good: Review component is complete and effective.

Good: Review component is adequate but presents opportunities for improvement.

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

No or Insufficient Evidence: Review component was not covered or information provided in the documents was insufficient for assessment.

Curriculum Map, Career Ladder/Stackable Credential Documentation, Syllabi	Excellent	Very Good	Good	Ineffective	No/Insufficient Evidence
1. Program CIP code/s appropriate to program title and outcomes.	1.				
2. Effective program structure (prerequisites, course sequence, stackable credential-structure provide a clear, logical path to completion).				2.	
3. Outcomes aligned to occupational focus (industry skills and standards) and prepare students for appropriate industry certification/s.	3.				
4. Outcomes are clearly stated.	4.				
5. Outcomes are introduced and reinforced effectively.	5.				
6. Course objectives are clearly stated and measurable.	6.				
7. In multi-course programs, course objectives support one or more program or student learning outcome. In single-course programs, modules support one or more course objective.	7.				

Comments or recommendations specific to each section rated:

1. Code matches specifications from Institute of Education Sciences.

2. The program is well laid out for students to follow. However, the statements given are for your Welding program and do not apply to Precision Machining.

3. The program focuses on the National Institute for Metalworking Skills (NIMS) certifications which are industry-recognized credentials.

4. The outcomes are listed with the time frames required. They are clearly described including when they should be accomplished to NIMS levels of certifications.

5. There is a clear and logical path for the outcomes to be obtained.

6. The objectives are clear and with NIMS certifications, they are definitely measureable.

7. The modules build on each other. The program is 16 weeks, non-credit and starts with the basics and builds to the CNC machines (more complex).

General comments or recommendations:

Some of your documents were evidently copied from your Welding Program and do not apply to this program. More care should be taken in the completion of this grant. (See Overview Development and Challenges paragraphs.) This program seems very-well laid out and has many good attributes. It takes students from the very basic level to operating CNC machines. That is good. It has many steps along the way to assess their

progress and the assessment forms are clear and concise. It uses Industry-standard NIMS certifications which is a big plus for graduates seeking employment. The plan is clear from start to finish. It has stackable credentials so students can move to a four-year institution or complete a two-year degree program within the school.

Instructional Materials and Lab Resources	Excellent	Very Good	Good	Ineffective	No/Insufficient Evidence
1. Support stated course or unit learning objectives.	1.				
2. Meet/reflect current industry practices and standards.	2.				
3. Provide options for multiple learning styles.		3.			
4. Instructional materials are cited properly.				4.	
5. There is evidence of materials and resources that support on-line or technology-enabled learning.	5.				

Comments or recommendations specific to each section rated:

1. Class discussions, book homework, and demonstrations all focus the students' attention on the particular goals.

2. By following NIMS standards and tests, the program is very focused on industry standards.

3. There is some Tooling U work but it is not well elaborated. Most seems to be focused in the lab and classroom discussion.

4. *Machinery Handbook* and Tooling U should be cited more appropriately.

5. Tooling U satisfies this requirement.

General comments or recommendations:

Overview Table: Objectives, Modules/Units, Learning Activities and Assessments	Excellent	Very Good	Good	Ineffective	No/Insufficient Evidence
1. Modules/units are linked to course objectives.	X				
2. Learning activities promote achievement of stated module/unit objectives.	X				
3. Learning activities provide opportunities for interaction and active learning.	X				
4. Learning activities provide options for multiple learning styles.		4.			
5. Learning activities are linked to current industry practices, standards and certifications.	X				
6. Learning activities demonstrate evidence of innovation or enhancements to support adult learner success.		6.			
7. Materials/resources (to include equipment, tools and software) are used in a way that students understand their purpose and use in industry settings.	7.				
8. Assessments measure stated learning objectives and link to industry standards.	8.				
9. Assessments align with course activities and instructional materials and resources.	8.				
10. Assessments are sequenced throughout the instructional period to enable students to build on feedback.	10.				
11. Assessments are varied and appropriate to content.	10.				
12. Assessments provide opportunities for students to measure their own learning progress.	10.				

Comments or recommendations specific to each section rated:

1. All "X" refer to the general comments above. The program is well done. It is probably focused mainly on the shop work and practices with minimal technological input except Tooling U. It is not very clear how much Tooling U is used. It can be an effective tool with homework and testing. It also keeps grades and allows multiple attempts if the instructor so decides.

2. See 1.

3. See 1.

4. Multiple learning styles could be enhanced by flip classroom work or perhaps some teamwork between students.

6. See 1.

7. The Tooling U probably works better for the younger students who are computer savvy upon entry to the certificate program. Older students returning to college or entering for the first time may not get as much from the online methods.

8. The assessments, NIMS and otherwise favor this.

9. The course objectives and industry objectives are met by the in-class assessments and the NIMS certifications.

10. See 8.

11. The assessments will allow students to measure their progress continually. If they pass the NIMS certifications, they will have industry-recognized qualifications. By having these certifications spaced throughout the program, the students continually build on their training and previous successes.

12. See 10.

13. See 10.

General comments or recommendations:

The check sheet is very effective in allowing students to know where they stand and it provides the information at a glance.

Innovative or Enhanced Strategies	Excellent	Very Good	Good	Ineffective	No/Insufficient Evidence
1. Evidence of industry input/standards in program design and curricular components.	1.				
2. Evidence of program enhancements to support the adult learner.		2.			
3. *If program has run long enough*, is there evidence that program design and curricular components and enhancements are resulting in good or improving completion rates?					3.

Comments or recommendations specific to each section rated:

1. NIMS certifications demonstrate the industry requirements.

2. The National Career Readiness Certificate and OSHA 10-hour are good for supporting the adult learner.

3. What are your stats for job placement? They are not given.

General comments or recommendations:

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3. The program focuses on the National Institute for Metalworking Skills (NIMS) certifications which are industry-recognized credentials.

4. The outcomes are listed with the time frames required. They are clearly described including when they should be accomplished to NIMS levels of certifications.

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