Advanced Manufacturing PLA Template

Faculty Worksheet Example

Course Number and Name: MAC 101 Introduction to Machine Shop

Circle One: ~~Associate Degree~~ Certificate

- ☐ *Electro-mechanical Engineering*
- ☐ *Engineering Graphics*
- ✓ Machining
- ☐ *Welding*
- ☐ *Other, please list here:* _____

Approved PLA methods for this course (Check all that apply):

- ☐ ~~Portfolio~~
- ✓ Practical Demonstration
- ✓ Challenge Exam

The following competencies are covered by the Challenge Exam:

Comp. I – Demonstrate effective shop safety skills
Comp. IV – Discuss layout tools and procedures
Comp. V – Explain the purpose and operation of hand and bench tools
Comp. VI and VII – Demonstrate knowledge and understanding of cutter geometry and purpose of cutting fluids
Comp. VIII – Explain the purpose, use, and operation of metal cutting saws
Comp. IX – Explain the purpose, use, and operation of drilling machines
Comp. XI – Explain the purpose, use, and operation of lathes
Comp. XII – Explain the purpose, use, and operation of milling machines
Comp. XIII – Calculate speeds and feeds for the lathe and milling machines

The following competencies will be assessed by the Practical Demonstration:

Students may complete the Practical Demonstration by choosing one of the two assessments described below.

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1. Video, Letter of Verification, and presenting the component/product to the assessor for review. The video must be of high quality showing the student using the proper machines, tools, equipment to make a component that encompasses the competencies listed below. The student will present the component to the assessor along with a letter of Verification on company letterhead signed by the student's supervisor attesting to the student's competencies and skills.

2. Practical Demonstration. The student will be provided materials, instructions and access to equipment to demonstrate the competencies for the faculty assessor in-person.

Competencies to be covered by the Practical Demonstration (in either video or via the in-person practical demonstration after successfully passing the Challenge Exam):

Comp. II – Perform basic shop measurements
Comp. III – Explain the operation of shop measuring equipment
Comp. X – Demonstrate the process for sharpening drills

Assessment Requirements:

The student must take the Challenge Exam first. Upon passing the Challenge Exam, the student is approved to do the Practical Demonstration. Students must pass both competency-based assessments with a 70% or higher ("C" grade or higher) to earn credit for the course.

Challenge Exams and Practical Demonstrations to earn credit for prior learning are only available two weeks prior to each semester. Students must contact their Program Advisor to initiate the process.

Prior Learning Assessment Protocol approved by:

John Q. Faculty, Division Chair

Date: January 31, 2016