

Course Assessment - Part A: Your Plan

COMPLETE

#515

Please select your course and name from the drop-down menu. If your course or name are incorrect or missing, contact the Curriculum and Assessment Administrative Assistant, 541-506-6037 or swade@cgcc.edu.

MFG 155 - Blueprint Reading - 1096837 - Robert Clark - Spring 2021

* Part A: Your Plan **DIRECTIONS** 1. Choose three of your course outcomes to assess and report on this term (these will also be used in your Student Course Evaluation survey): Outcome #1

1. Identify basic and intermediate blueprint annotation and markings.

* Outcome #2

2. Produce to tolerance welding samples from blueprints

* Outcome #3

3. Produce parts designs from computer aided design (CAD) programs and utilize CAD designs to create sample parts.

Have you completed an assessment for this course prior to this term?

No

If yes, are you assessing different outcomes?

No

Comments:

(No response)

2. To which degree(s) or certificate(s) does your course map? [Degree, Certificate, & Program Outcomes](#)

Manufacturing Certificate, ENGINEERING, MANUFACTURING & INDUSTRY

* Method of Assessment 3. What methods will be used to assess individual student understanding of each of these outcomes? (Please be specific.) Outcome #1: Method to assess student understanding

This outcome will be assessed using an academic assessment that includes both written and hands-on portions. During the assessment students will identify weld symbols, annotate weld diagrams, read weld blueprints, create weld blueprints, and finally create a product using tooling in the lab to submit with the written assessment. The product will be measured for tolerance and weld print accuracy.

* Outcome #2: Method to assess student understanding

Students will fabricate increasingly difficult products from blueprints over the course of the class. These products will be measured and toleranced, as well as checked for overall accuracy of the blueprint's interpretation. Finally, students will draw a blueprint themselves, and have them swapped at random with other students blueprints. Peers will assess each other's blueprints as well as instructor assessment.

*** Outcome #3: Method to assess student understanding**

Verify product use and application, check blue print tolerance and part fitment. Once the product design has been verified, students will cut the parts and check tolerances, and do finish welding on the product. Students will be assessed on how the product functions, if it meets tolerance, and if it solves the problem initially laid out in the design phase.

*** 4. How will you know if you were successful in your efforts to teach this outcome? Outcome #1:**

Testing outcomes will be a direct result of the success or failure of the students learning for this outcome. A normal bell-curve would be an average result, while an exceptional result sees a higher A-B pass rate/average for students.

*** Outcome #2: How will you know if you were successful in your efforts to teach this outcome?**

One advantage of assessing the learning in this outcome is the ability to measure and check the learning of students along the way through the products, welds and symbol interpretation that they do each step of the way. Since they will create 6 products from set blueprints it is easy to see if they are welding in the correct places, at the correct sizes, and if the product itself meets necessary production requirements. One measure of success would be the growth of accuracy to tolerance and reduction in errors from the first product from blueprint to the last. The hope is that most all students will meet this goal with relative accuracy as it is interwoven throughout the course.

*** Outcome #3: How will you know if you were successful in your efforts to teach this outcome?**

Since this is a skill based outcome, assessment is much more black and white than in most courses. As a cumulative skill, one would hope that the design process taught as well as the critical thinking utilized in problem solving for their design would lead to a successful result that solves the problem the student has laid out for themselves. This allows the student to be a good judge of their own success along the way, so that there can be more targeted growth in areas of weakness. The final assessment is measured, toleranced and then product tested by the instructor.

5. Instructor Questions: Create two course specific questions to be included on the Student Course Evaluation. Question #1

What were areas of growth for you during the course?

Question #2

What would you like spend more time on during the course, and what would you like to spend less time on during the course?

Do you require the names of students who complete the course evaluation survey? (Please note: names will be sent to instructors the Thursday before term ends)

NO

Reminder, when completing Part B, instructors will be asked the following questions: Describe anything you did to assist the institutional effort to support students in improving achievement of the specified criteria for the following Core Learning Outcomes (CLO): 1. CLO#1 - Communication - "Sources and Evidence" and/or "Organization and Presentation" 2. CLO#2 - Critical Thinking/Problem Solving - "Student Position" and/or "Evaluate Potential Solutions" 3. CLO#4 - Cultural Awareness - "Curiosity" (Encouraging our students to "Ask deeper questions about other cultures and seek out answers to these questions") 4. CLO#5 - Community and Environmental Responsibility - "Understanding Global Systems" and/or "Applying Knowledge to Contemporary Global Contexts" 5. CLO#3 - Quantitative Literacy - "Application/Analysis" and/or "Assumptions"

Columbia Gorge Community College