

Course Assessment- Part B: Your Results & Analysis

COMPLETE

#525

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 150-Manufacturing Processes-Robert Clark- Fall 2021

*** Part B: Your Results DIRECTIONS 1. Report the outcome achievement data gathered via the assignments, tests, etc. you identified for each outcome (question 3) of your Part A. (Only include data for students who completed the course. Do not include students who withdrew or earned an incomplete) Data for all 3 outcomes should be reported below.**

Outcome #1: Students did very well with this outcome, and all students enrolled passed the coupon bend test. Partially, this success can be contributed to increased lab time and increased time using SMAW due to the failure in obtaining appropriate gas for using GMAW operations. This success likely limited the success/scope in outcomes for any GMAW based outcomes.

Outcome #2:

Students were very successful in outcome two for SMAW identification of weld errors, and did well to translate those skills into the much shorter GMAW identification of weld errors. Written responses indicated growth in understanding how to fix machine parameters, but still some knowledge gaps in understanding external factors causing errors.

Outcome #3:

All student successfully completed outcome 3's blueprint project with a variety of scores achieved from 74%-98% accuracy. Because there were no GMAW welders to use, the rubric was slightly adjusted for tolerance as SMAW welding was used, as would not be common practice.

*** Outcome #1**

Outcome #1: Students did very well with this outcome, and all students enrolled passed the coupon bend test. Partially, this success can be contributed to increased lab time and increased time using SMAW due to the failure in obtaining appropriate gas for using GMAW operations. This success likely limited the success/scope in outcomes for any GMAW based outcomes.

*** % of students who successfully achieved the outcome (C or above)**

100

*** Outcome #2**

Outcome #2:

Students were very successful in outcome two for SMAW identification of weld errors, and did well to translate those skills into the much shorter GMAW identification of weld errors. Written responses indicated growth in understanding how to fix machine parameters, but still some knowledge gaps in understanding external factors causing errors.

*** % of students who successfully achieved the outcome (C or above)**

82%

*** Outcome #3**

Outcome #3:

All student successfully completed outcome 3's blueprint project with a variety of scores achieved from 74%-98% accuracy. Because there were no GMAW welders to use, the rubric was slightly adjusted for tolerance as SMAW welding was used, as would not be common practice.

*** % of students who successfully achieved the outcome (C or above)**

86%

*** ANALYSIS 3. What contributed to student success and/or lack of success?**

Being able to spend more time in lab compared to last year, as well as focusing in on a narrower subject matter allowed more success in identified objectives, but this was likely at the cost of a narrow overall scope of the class.

*** 4. Helping students to realistically self-assess and reflect on their understanding and progress encourages students to take responsibility for their own learning. Please compare your students' perception of their end-of-term understanding/mastery of the three outcomes (found in student evaluations) to your assessment (above) of student achievement of the three outcomes.**

Considering most students started the term unable to weld at all, and finished as likely able to pass a welding certification test their perceptions were very good.

*** 5. Did student achievement of outcomes meet your expectations for successfully teaching to each outcome (question 4 from Part A)**

Yes

*** 6. Based on your analysis in the questions above, what course adjustments are warranted (curricular, pedagogical, student instruction, etc.)?**

It's hard to make any big decisions based on this data set due to the large missing component from the curriculum, but likely it will be important in the future to ensure the time balance is right for each identified outcome.

7. What resources would be required to implement your recommended course adjustments (materials, training, equipment, etc.)? What Budget implications result?

More budget would be beneficial and increase the scope / scale of the projects completed and further student learning.

*** 8. Describe the results of any adjustments you made from the last assessment of this course (if applicable) and their effectiveness in student achievement of outcomes.**

The course is now concurrent with MFG155 and WLD195. This allows adjustment in the timing to spend more time where needed, and less where not needed. It does increase the workload on the instruction side.

9. Describe how you explain information about course outcomes and their relevance to your students.

We cover course outcomes through the syllabus, but also in real time in class. Course outcomes in technical classes like these are tied to direct learning and experiential learning as it happens in the class.

10. Please describe any changes/additions to instruction, curriculum or assessment that you made to support students in better achieving the CGCC Institutional Learning Outcomes: ILO #1: Communication. The areas that faculty are focusing on are: "Content Development" and/or "Control of Syntax and Mechanics" and ILO #2: Critical Thinking/Problem Solving. The areas that faculty are focusing on are: "Student's Position" (Critical Thinking) and "Evaluate Potential Solutions" (Problem Solving). ILO #4: Cultural Awareness. The area that faculty is focusing on is: "Curiosity" - Encouraging our students to "Ask deeper questions about other cultures and seek out answers to these questions" ILO #5: Community and Environmental Responsibility. The area that faculty are focusing on are: "Applying Knowledge to Contemporary Contexts" and "Understanding Global Systems" ILO#3 -Quantitative Literacy - "Application/Analysis" and/or "Assumptions"

ILO#1: More focus on students working with each other-- i.e. welding each others prints so they must communicate as business - client in interpreting blueprints.

ILO#2: Problem solving is a constant feature of classes, and in this term in particular greater emphasis was put in to problem solving tools, particularly using math, to solve manufacturing workflow issues.

ILO#3: Analysis of weld and design was adapted to better meet this ILO.

ILO#4: Students were introduced to workplace discrepancy in wage and representation in gender.

ILO#5: Understanding how to make manufacturing efficient part of global systems to reduce total waste.