

**Course Assessment Report  
Washtenaw Community College**

Discipline	Course Number	Title
Welding and Fabrication	105	WAF 105 07/22/2019- Introduction to Welding Processes
Division	Department	Faculty Preparer
Advanced Technologies and Public Service Careers	Welding and Fabrication	Glenn Kay II
Date of Last Filed Assessment Report		

**I. Review previous assessment reports submitted for this course and provide the following information.**

1. Was this course previously assessed and if so, when?

No

2. Briefly describe the results of previous assessment report(s).

3.

4. Briefly describe the Action Plan/Intended Changes from the previous report(s), when and how changes were implemented.

5.

**II. Assessment Results per Student Learning Outcome**

Outcome 1: Recognize and apply welding vocabulary.

- Assessment Plan
  - Assessment Tool: Written exam
  - Assessment Date: Fall 2012
  - Course section(s)/other population: All
  - Number students to be assessed: All
  - How the assessment will be scored: Answer key
  - Standard of success to be used for this assessment: 80% of students will score 90% or higher

- Who will score and analyze the data: Departmental faculty

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2019	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
65	48

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Not all students enrolled were assessed due to withdrawals, audits and failure to complete course work.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

This assessment was based upon morning, afternoon, evening and weekend sections.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

A multiple choice exam was used via Blackboard using an answer key developed by department faculty.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: No  
 The data was collected through Blackboard, and all the sections were factored in for the winter 2019 term. According to the results gathered, only 71% of the students scored 90% or higher using this assessment tool. The standard of success was not met.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Students were given a process presentation with handouts and then led by a practical hands-on welding presentation. By doing this, it helps the students better associate the welding vocabulary learned in the classroom when applying their skills to the physical welding processes.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

A stronger emphasis on better note-taking and time management needs to be conveyed to the students so they can be better prepared for process presentations and have notes to refer to. Attendance and tardiness are also issues, but some of this can be attributed to the inclement weather we experienced this past Winter 2019 term. Quizzes should not be taken all at once at the end of the semester. Staff needs to be more proactive in ensuring there are checkpoints in the semester to ensure quizzes are completed as objectives are met.

Outcome 2: Recognize and interpret welding theory.

- Assessment Plan
  - Assessment Tool: Written exam
  - Assessment Date: Fall 2012
  - Course section(s)/other population: All
  - Number students to be assessed: All
  - How the assessment will be scored: Answer key
  - Standard of success to be used for this assessment: 80% of students will score 90% or higher
  - Who will score and analyze the data: Departmental faculty

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2019	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
65	52

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Not all students were assessed due to withdrawals, audits and failure to complete the course work.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All sections were assessed which include morning, afternoon, evening and weekend sections.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

A multiple choice exam was used via Blackboard using an answer key developed by department faculty.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: No

Only 73% of the students scored 90% or higher. The standard of success was not met for this outcome.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Students were given a process presentation with handouts and then led by a practical hands-on welding presentation. By doing this, it helps the students better associate the welding vocabulary learned in the classroom when applying their skills to the physical welding processes.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

A stronger emphasis on good note-taking and time management needs to be conveyed to the students so they can be better prepared for process presentations and to have notes to refer to. Students showing up late to class is also an issue, but some of this was due to inclement weather which was hard to avoid this past Winter 2019 term.

Outcome 3: Students will safely perform a variety of welds on 14 gauge or 1/4" steel using GMAW, OFW, and SMAW processes as well as GTAW weld 1/8" aluminum in the flat position.

- Assessment Plan
  - Assessment Tool: Welded samples
  - Assessment Date: Fall 2012
  - Course section(s)/other population: All
  - Number students to be assessed: All
  - How the assessment will be scored: The welds will be scored as pass or fail in meeting the AWS D1.1 and D1.2 code.
  - Standard of success to be used for this assessment: 80% of students will create welds in three of the four welding processes in accordance with AWS D1.1 and D1.2 code.
  - Who will score and analyze the data: Departmental faculty

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2019	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
65	55

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Not all students were assessed due to withdrawals, audits and failure to complete course content.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All sections were assessed which include morning, afternoon, evening and weekend sections.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

A weldment sign-off sheet was used for each student. Once the student met the industry standard (D1.1 and D1.2 code), the task was signed off by the instructor.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: No

69% of the students successfully completed the weldment sign-off sheet. The standard for success was not met for this outcome.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

There was an instructor-led demonstration for each weldment task on the sign-off sheet which has proven to be very helpful so the students understand exactly what is being asked of them and how they can go about accomplishing the task successfully.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

To better assist meeting the standard of success, students need to be better about time management, which includes showing up to class on time and fewer absences. Coupled with inclement weather, these tardies and absences leave little to no time for catch up if the student cannot attend open labs to make up the missed time. To assist, staff will emphasize that the detailed syllabus, which provides a clear outline of where the student should be and at what point in the semester, must be followed. Any deviation from that can result in an unfavorable grade and outcome.

### III. Course Summary and Intended Changes Based on Assessment Results

1. Based on the previous report's Intended Change(s) identified in Section I above, please discuss how effective the changes were in improving student learning.

No previous assessment done/no information.

- Describe your overall impression of how this course is meeting the needs of students. Did the assessment process bring to light anything about student achievement of learning outcomes that surprised you?

The course is preparing them for work in the real world, not just how to weld but how to prioritize, work through problems, and commit. For those that embrace each, we have student success; for those that struggle, we have to push the understanding that this isn't just about getting objectives complete but learning how to function in a demanding environment that requires not just technical skills but soft skills as well.

The assessment was surprising, I have not seen this level of failure in quite some time. While I believe adjustments can be made to assist, I attribute most of the failures to the weather and school closures as each class is critical and missing even one can set a student back. We did offer open labs and special open classes for the students, but not all could attend given their schedules.

- Describe when and how this information, including the action plan, was or will be shared with Departmental Faculty.

This information and action plan will be shared during the Fall In-Service and throughout our monthly departmental meetings.

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Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Assessment Tool	Our plan is to reduce the standard of success from 80% of students completing coursework at 90% or better to 80% of students completing coursework at 80% or better.	There are many students just trying out welding, and our standard was quite high given the amount of students we see and given the fact that this is a skilled trade, meaning not everyone is going to be able to execute at a 90% or higher level. We need to be able to capture those that also give it their best.	2020

Other: Note-taking and time management	We would like to place a stronger emphasis on the importance of note-taking, time management and keeping track of course requirements.	We hope this will enable students to be better prepared for process presentations, have thorough notes, take quizzes throughout the semester, and do their best to show up to class on time.	2020
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5. Is there anything that you would like to mention that was not already captured?

No

### III. Attached Files

[Welding Theory](#)

[Welding Vocab](#)

[WAF 105 Task 1 scores](#)

**Faculty/Preparer:** Glenn Kay II **Date:** 08/08/2019

**Department Chair:** Glenn Kay II **Date:** 08/08/2019

**Dean:** Brandon Tucker **Date:** 08/29/2019

**Assessment Committee Chair:** Shawn Deron **Date:** 11/15/2019