

**Course Assessment Report
Washtenaw Community College**

Discipline	Course Number	Title
Welding and Fabrication	106	WAF 106 07/13/2021- Welding Print Reading
College	Division	Department
Advanced Technologies and Public Service Careers	Advanced Technologies and Public Service Careers	Welding and Fabrication
Faculty Preparer		Glenn Kay II
Date of Last Filed Assessment Report		01/30/2018

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

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

Yes The assessment report was reviewed and approved on 1/29/2018

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

The overall impression of the course was that it was meeting the needs of the students. The acceptance criteria for the welded projects was narrowed and better defined in rubrics. The way the WAF department had this Blackboard class set up limited access of data and information to use for assessing purposes.

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

The action plan was to update Blackboard to allow digital access to both practical assignments and written exams. Prints should conform to welding standards.

II. Assessment Results per Student Learning Outcome

Outcome 1: Identify basic lines, views, welding symbols, title boxes, material lists and notes, specifications and dimensions on a 2 and 3 dimensional welding blueprint.

- Assessment Plan
 - Assessment Tool: Written exam
 - Assessment Date: Fall 2019

- 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 80% 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)
	2021	

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

# of students enrolled	# of students assessed
29	26

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.

Three students did not complete the activity reducing the number assessed to 26.

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.

Students from all populations accessed this assessment through Blackboard.

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

The written exam was administered in blackboard and scored using an answer key.

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: Yes
 Based upon the data collected for this tool, 21 of the 26 students (81%) assessed scored 80% or higher. The standard of success was met.

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

Students were successful in identifying basic lines, views and welding symbols, the use of title boxes, material lists and notes which are the foundational requirements for weld print reading and design.

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.

While the standard of success was met, building upon this foundation with additional lab demonstrations for both print reading and design will help as the demands of print reading skills increase throughout the course.

Outcome 2: Interpret CAD drawings, create sketches and conventional drafts of orthographic, surface and section views.

- Assessment Plan
 - Assessment Tool: Written exam
 - Assessment Date: Fall 2019
 - Course section(s)/other population: All
 - Number students to be assessed: All
 - How the assessment will be scored: Answer key and rubric
 - Standard of success to be used for this assessment: 80% of students will score an average of 80% 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)
	2021	

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

# of students enrolled	# of students assessed
29	26

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.

Three students did not complete the activity, reducing the number assessed to 26.

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.

Students from all populations were assessed

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

The written exam was administered in Blackboard and scored using answer key.

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: Yes

Based on the data collected for this tool, 25 of 26 students (96%) assessed scored 80% or higher, meeting the standard of success.

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

Students were able to apply the foundational requirements for print reading and design and begin to interpret drawings, create sketches/drafts of orthographic, surface and section views.

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.

While the standard of success was met for this outcome, additional drawing practice should be incorporated to help students make the leap to assembling a project in accordance with a print.

Outcome 3: Create, read and interpret blueprints using both AWS and ISO standards.

- Assessment Plan

- Assessment Tool: Welded project
- Assessment Date: Fall 2019
- Course section(s)/other population: All
- Number students to be assessed: All
- How the assessment will be scored: Departmentally-developed rubric
- Standard of success to be used for this assessment: 80% of students will score an average of 80% 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)
	2021	

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

# of students enrolled	# of students assessed
29	20

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.

Nine students did not complete the activity, reducing the number assessed to 20.

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.

Students from all populations were assessed.

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

Assembled project in accordance with a provided print. The tool was scored in accordance with a rubric that focused on proper assembly, view orientation, weld symbol application and craftsmanship. Rubric scores were recorded in Blackboard.

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: <u>No</u>
Based upon the data collected, 8 of the 20 students (40%) assessed scored 80% or higher. The standard of success for this particular outcome was not met.

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

A portion of the students assessed understood how to create, read and interpret prints in accordance with welding standards.
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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.

Students struggled to use the knowledge of what is required for print reading and design and apply them by assembling a project in accordance with a print. To improve this outcome's success, small group lab sessions with example demonstrations will be held to better ensure students can visualize and model a project in accordance with the print and associated views.

Outcome 3: Create, read and interpret blueprints using both AWS and ISO standards.

- Assessment Plan
 - Assessment Tool: Written exam
 - Assessment Date: Fall 2019
 - 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 an average of 80% 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)
	2021	

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

# of students enrolled	# of students assessed
29	24

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.

Five students did not complete the activity, leaving 24 students assessed.

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.

Students from all populations were assessed

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

The written exam was administered in Blackboard and scored using an embedded answer key.

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: Yes

21 out of 24 students (88%) scored 80% or higher, meeting the standard of success.

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

A portion of the students assessed understood how to create, read and interpret prints in accordance with welding standards.

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.

Students struggled to use the knowledge of what is required for print reading and design and apply them by assembling a project in accordance with a print. To improve this outcome's success, small group lab sessions with example

demonstrations will be held to better ensure students can visualize and model a project in accordance with the print and associated views.

Outcome 4: Create, construct and weld basic joint designs in accordance with blueprint specifications.

- Assessment Plan
 - Assessment Tool: Lab assignment
 - Assessment Date: Fall 2019
 - Course section(s)/other population: All
 - Number students to be assessed: All
 - How the assessment will be scored: Rubric
 - Standard of success to be used for this assessment: 80% of students will score an average of 80% 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)
	2021	

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

# of students enrolled	# of students assessed
29	16

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.

Thirteen students did not complete the activity, leaving 16 assessed.

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.

Students from all populations were assessed.

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

Students designed and assembled a project in accordance with project criteria, which was scored with the associated rubric.

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: Yes

Assessment results for this outcome and tool are 13 students out of 16 students (81%) scored 80% or higher, meeting the standard of success.

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

Students were able to understand and demonstrate how to create, construct and assemble basic joint designs in accordance with a print.

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.

Students were successful with this outcome. However, some struggled with 3D design and interpretation, so further emphasis on the differences between 2D and 3D concepts with additional drawing/modeling example comparisons may help with improved visualization and application.

Outcome 5: Interpret weld procedure specifications (WPS) and apply to weldments.

- Assessment Plan
 - Assessment Tool: Written exam
 - Assessment Date: Fall 2019
 - 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 an average of 80% 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)
	2021	

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

# of students enrolled	# of students assessed
29	16

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.

Thirteen students were not assessed as they did not complete this activity, leaving 16 students.

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 students were able to access this tool via Blackboard.

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

The written exam was administered in Blackboard and scored using an answer key.

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: Yes
16 of the 16 students (100%) accessed scored 80% or higher, meeting the standard of success.

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

Students were able to successfully interpret weld procedure specifications and apply to assembled project.

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.

While students overall were successful in interpreting and applying weld procedure specifications both with the practical assignment and the written exam, to improve the level of participation, the written exam will become part of the requirement for the practical assignment moving forward.

Outcome 5: Interpret weld procedure specifications (WPS) and apply to weldments.

- Assessment Plan
 - Assessment Tool: Lab assignment
 - Assessment Date: Fall 2019
 - Course section(s)/other population: All
 - Number students to be assessed: All
 - How the assessment will be scored: Rubric
 - Standard of success to be used for this assessment: 80% of students will score an average of 80% 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)
	2021	

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

# of students enrolled	# of students assessed
29	25

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.

Four students did not complete this activity. Twenty-five of the 29 students were assessed.

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 students from all sections who completed the task were assessed.

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

This lab assignment assessed a student's ability to create Lap and Groove drawings in accordance with embedded rubric.

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: Yes

Twenty-five of the 29 (86%) enrolled students assessed scored 80% or higher, successfully meeting the standard of success.

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

Students were able to successfully interpret weld procedure specifications and apply to assembled project.

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.

While students overall were successful in interpreting and applying weld procedure specifications both with the practical assignment and the written exam, to improve the level of participation, the written exam will become part of the requirement for the practical assignment moving forward.

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.

100% of the course's practical assignment checklists and written exams are now available via Blackboard. This change has allowed for greater access to required objectives and course content. Students now have advance knowledge of rubric scoring, which sets appropriate expectations and ensures scoring transparency. All prints are in accordance with welding standards so that understanding transcends the classroom.

2. 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?

My overall impression is that while this course is meeting the needs of students, many students scored poorly on modeling their first project. This tells me that while concepts are being understood, students struggle with practical application early on in the course and improve over the duration of the course.

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

The report will be discussed with departmental faculty during a scheduled departmental meeting.

- 4.

Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Outcome Language	<p>1. Student learning outcomes should be combined (written and practical exams) and reduced to a total of 3.</p> <p>2. The standard of success should be lowered to 75% of students should score 70% or higher.</p>	<p>There is currently too much overlap within the student learning outcomes. Written and practical exams should be combined and the outcomes should consist of the following main topic areas:</p> <p>1. Recognize fundamental components and terminology associated with weld print reading.</p> <p>2. Read, interpret and sketch weld prints and joint designs based upon American Welding Society (AWS)</p>	2021

		<p>standards.</p> <p>3. Interpret Weld Procedure Specification (WPS) and how they apply to weldments.</p> <p>Secondly, while the 80% standard of success is often met, this is a basic print reading class and many students have never attempted to interpret or draft a print before. Expecting 80% of the students to achieve 80% or better on each outcome is a very high expectation for an introductory class. Therefore I am proposing we change the standard of success to 75% of students will score 70% or higher.</p>	
Assessment Tool	Add a written and practical exam.	Provide additional data to confirm students learning.	2021
Course Assignments	Add additional lab demonstration for both print reading and design.	Will improve student performance	2021
Course Assignments	Students will spend additional time with	Increase their ability to visualize	2021

	drawing/modeling 3D design.	the concepts much faster.	
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5. Is there anything that you would like to mention that was not already captured?

Nothing more to add.

III. Attached Files

[AWS Weld symbol stats](#)
[First weld print](#)
[Lap and groove weld drawing](#)
[Chap 2 test stats](#)
[Chap 16 exam stats](#)
[Design project stats](#)
[Design project rubric](#)
[Lap and groove stats](#)
[ortho project_alpha of lines](#)
[Ortho stats](#)

Faculty/Preparer: Glenn Kay II **Date:** 08/09/2021
Department Chair: Bradley Clink **Date:** 08/13/2021
Dean: Jimmie Baber **Date:** 08/19/2021
Assessment Committee Chair: Shawn Deron **Date:** 12/17/2021

Course Assessment Report
Washtenaw Community College

Discipline	Course Number	Title
Welding and Fabrication	106	WAF 106 01/05/2016-Blueprint Reading for Welders
Division	Department	Faculty Preparer
Advanced Technologies and Public Service Careers	Welding and Fabrication	Amanda Scheffler
Date of Last Filed Assessment Report		

I. Assessment Results per Student Learning Outcome

Outcome 1: Identify shop tools and equipment and demonstrate proper and safe use of tools and equipment.

- Assessment Plan
 - Assessment Tool: Final Project
 - Assessment Date: Winter 2017
 - Course section(s)/other population: All
 - Number students to be assessed: Random sample of 50% of the students with a minimum of 10.
 - How the assessment will be scored: Departmentally-developed rubric
 - Standard of success to be used for this assessment: 75% of the students will score 80% 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)
2015		

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

# of students enrolled	# of students assessed
31	14

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.

I do not have access to all 31 students' grades that are generated through CurricUNET. I only have access to the sections I taught on Blackboard. For fall 2015 semester there were 17 students enrolled at the beginning of the semester.

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 students who were populated in Blackboard in courses I taught are the student scores that were used to complete this assessment report.

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

The students had to complete a welded project for this course. This includes using the equipment and power tools in the shop to assemble and weld the metal project. A rubric was used to assess this project.

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: Yes

The lowest score was 71%. The highest score was 100%. Fourteen of seventeen enrolled students (82%) completed this assignment. Thirteen of the fourteen (93%) scores were 80% or above. Yes, the standard of success (75% of students will score 80% or higher) was met.

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

The average score for this assignment was 91%. The median score was 93%. There were no safety violations identified. It was observed that students requested assistance in setting up their welding machines for the intended welding process to be used for the project. Overall, the students assessed were strong in properly using the tools required to complete this assignment.

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.

Based on the observation, more time will be spent to emphasize basic welding machine set up per process when lecturing on the chapter in the book that explains welding processes.

Outcome 2: Identify basic lines, views, symbols, notes, specifications and dimensions on a blueprint of a 2-dimensional or 3-dimensional shape.

- Assessment Plan
 - Assessment Tool: Written Exam
 - Assessment Date: Winter 2017
 - 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: 75% of students will score an average of 80% 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)
2015		

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

# of students enrolled	# of students assessed
31	14

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.

I do not have access to all 31 students' grades that are generated through CurricUNET. I only have access to the sections I taught on Blackboard. For fall 2015 semester there were 17 students enrolled at the beginning of the semester.

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 students who were populated in Blackboard in courses I taught are the student scores that were used to complete this assessment report.

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

Students were given a print and a quiz for this assignment. The assessment tool was an answer key.

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: Yes

The lowest score was 47%. The highest score was 98%. Fourteen of seventeen enrolled students (82%) completed this assignment. Eleven of fourteen students (78%) scored 80% or above. Yes, the standard of success (75% of students will score 80% or higher) was met.

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

The average score for this assignment was 83%. The median score was 92.5%. The other students who scored below 80% the scores were 47%, 49% and 57.5%. Overall, students either did well or very poorly on this quiz. The quizzes with lower scores had more unanswered questions than the other quizzes.

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.

No changes for this outcome are planned at this time.

Outcome 3: Read and interpret blueprints using both ISO and AWS standard requirements.

- Assessment Plan
 - Assessment Tool: Written Exam
 - Assessment Date: Winter 2017
 - 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: 75% of students will score an average of 80% 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)
2015		

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

# of students enrolled	# of students assessed
31	16

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.

I do not have access to all 31 students' grades that are generated through CurricUNET. I only have access to the sections I taught on Blackboard. For fall 2015 semester there were 17 students enrolled at the beginning of the semester.

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 students who were populated in Blackboard in courses I taught are the student scores that were used to complete this assessment report.

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

The students were assigned to design a project and draw a print using AWS standards. A rubric was used to assess this assignment.

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: Yes
 The lowest score was 92%. The highest score was 100%. Sixteen of seventeen enrolled students (94%) completed this assignment. Thirteen of the 14 (93%) scores were 80% or above. Yes, the standard of success (75% of students will score 80% or higher) was met.

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

For assessment tool number one, the average score for this assignment was 97.5 % and the median score was 98%. For assessment tool number two, the average score was 98% and the median score was 99%. Overall, the students scored extremely well on this assignment. I think this may be a result of the distribution of a rubric which included a list of requirements the students could check off once their project met that requirement.

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.

This course is one of the first courses a student will take in the welding program. I kept that in mind when I developed the rubric and acceptance criteria for this project. My plan for continuous improvement is to narrow the acceptance criteria for the welds and the acceptable tolerance ranges for the project assembly from what this rubric had defined.

The area of improvement for this outcome is to incorporate a portion of the assignment to include ISO standards as well as AWS standards. An assessment area of ISO standards was not included in these assessment tools.

Outcome 4: Design detail assembly prints using welding symbols and abbreviations, and construct (weld) basic joints for weldment fabrication.

- Assessment Plan
 - Assessment Tool: Final Project
 - Assessment Date: Winter 2017
 - Course section(s)/other population: All
 - Number students to be assessed: Random sample of 50% of the students with a minimum of 10.
 - How the assessment will be scored: Departmentally-developed rubric
 - Standard of success to be used for this assessment: 75% of the students will score 80% 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)
2015		

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

# of students enrolled	# of students assessed
31	14

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.

I do not have access to all 31 students' grades that are generated through CurricUNET. I only have access to the sections I taught on Blackboard. For fall 2015 semester there were 17 students enrolled at the beginning of the semester.

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 students who were populated in Blackboard in courses I taught are the student scores that were used to complete this assessment report.

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

Students were assigned to design a project and then draw a print for their project within AWS standards. A rubric was used to assess this assignment.

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: Yes

The lowest score was 76%. The highest score was 100%. Fourteen of seventeen enrolled students (82%) completed this assignment. Thirteen of 14 of students (93%) received 80% or above. Yes, the standard of success (75% of students will receive 80% or above) was met.

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

The average score for this assignment was 93%. The median score was 93%. One student scored below the benchmark of 80%. The students were given a rubric

with a list of requirements they could check off to make sure all assessed criteria was included.

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.

I plan to continue to distribute the rubric with a detailed list of assessment criteria. I believe that doing so allowed for students to ensure they did not miss any critical material.

Outcome 5: Interpret and create a welding procedure specification (WPS).

- Assessment Plan
 - Assessment Tool: Written exam
 - Assessment Date: Winter 2017
 - 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: 75% of students will score an average of 80% or higher.
 - Who will score and analyze the data: Department 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)
2015		

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

# of students enrolled	# of students assessed
31	12

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.

I do not have access to all 31 students' grades that are generated through CurricUNET. I only have access to the sections I taught on Blackboard. For fall 2015 semester there were 17 students enrolled at the beginning of the semester.

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 students who were populated in Blackboard in courses I taught are the student scores that were used to complete this assessment report.

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

The students were given a WPS, a copy of AWS B2.1 Section 5 and a quiz referencing the information in the documents. An answer key was used to assess this portion of the assignment.

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 lowest score was 57.5%. The highest score was 95%. Twelve of seventeen enrolled students (70.5%) completed this assignment. Eight of the twelve students who completed this assignment (66%) scored 80% or above. No, the standard of success (75% of students will score 80% or higher) was not met.

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

For assessment tool number one, the average score for this assignment was 81% and the median score was 85%. For assessment tool number two, the average score was 91% and the median score was 93%. Students did better on the lab activity than on the written assignment.

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.

Students did well on this assignment overall. A little more time could be spent in class explaining and doing exercises on navigation of a code book and how to reference multiple documents to determine an answer. It was noticed that the lower quiz scores also had more answers left blank.

Outcome 3: Read and interpret blueprints using both ISO and AWS standard requirements.

- Assessment Plan
 - Assessment Tool: Lab assignment
 - Assessment Date: Winter 2017
 - Course section(s)/other population: All
 - Number students to be assessed: All
 - How the assessment will be scored: Department rubric
 - Standard of success to be used for this assessment: 75% of students will score an average of 80% or higher.
 - Who will score and analyze the data: Department 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)
2015		

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

# of students enrolled	# of students assessed
31	16

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.

I do not have access to all 31 students' grades that are generated through CurricUNET. I only have access to the sections I taught on Blackboard. For fall 2015 semester there were 17 students enrolled at the beginning of the semester.

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 students who were populated in Blackboard in courses I taught are the student scores that were used to complete this assessment report.

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

Students were given a print and were assigned to assemble and weld the project according to the print and AWS standards.

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: Yes

The lowest score was 87%. The highest score was 100%. Sixteen of seventeen enrolled students (94%) completed this assignment. Sixteen of the sixteen (100%) scored 80% or above. Yes, the standard of success (75% of students will score 80% or higher) was met.

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

For assessment tool number one, the average score for this assignment was 97.5 % and the median score was 98%. For assessment tool number two, the average score was 98% and the median score was 99%. Overall, the students scored extremely well on this assignment. I think this may be a result of the distribution of a rubric which included a list of requirements the students could check off once their project met that requirement.

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.

This course is one of the first courses a student will take in the welding program. I kept that in mind when I developed the rubric and acceptance criteria for this project. My plan for continuous improvement is to narrow the acceptance criteria for the welds and the acceptable tolerance ranges for the project assembly from what this rubric had defined.

The area of improvement for this outcome is to incorporate a portion of the assignment to include ISO standards as well as AWS standards. An assessment area of ISO standards was not included in these assessment tools.

Outcome 5: Interpret and create a welding procedure specification (WPS).

- Assessment Plan
 - Assessment Tool: Lab assignment
 - Assessment Date: Winter 2017
 - Course section(s)/other population: All
 - Number students to be assessed: All

- How the assessment will be scored: Department rubric
- Standard of success to be used for this assessment: 75% of students will score an average of 80% or higher.
- Who will score and analyze the data: Department 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)
2015		

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

# of students enrolled	# of students assessed
31	14

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.

I do not have access to all 31 students' grades that are generated through CurricUNET. I only have access to the sections I taught on Blackboard. For fall 2015 semester there were 17 students enrolled at the beginning of the semester.

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 students who were populated in Blackboard in courses I taught are the student scores that were used to complete this assessment report.

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

A welded project with a rubric was used for this assessment tool. The students were assigned to weld a project in accordance with the print and AWS standards.

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: Yes
 The lowest score was 71%. The highest score was 100%. Fourteen of seventeen enrolled students completed this assignment. Thirteen out of fourteen students

(93%) scored 80% or above. Yes, the standard of success (75% of students will score 80% or above) was met.

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

For assessment tool number one, the average score for this assignment was 81% and the median score was 85%. For assessment tool number two, the average score was 91% and the median score was 93%. Students did better on the lab activity than on the written assignment.

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.

Students did well on this assignment overall. A little more time could be spent in class explaining and doing exercises on navigation of a code book and how to reference multiple documents to determine an answer. It was noticed that the lower quiz scores also had more answers left blank.

II. Course Summary and Action Plans Based on Assessment Results

1. 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?

My overall impression about this course is that it is meeting the needs of the students. Nothing really surprised me. I noticed the students who scored lower on the written quizzes used in the assessment tools also scored lower than average on many other quizzes. More time needs to be spent on ISO standards since there is currently a heavy focus on AWS standards. A different lab assignment will be used for outcome 5 assessment tool 2. The acceptance criteria for the welded projects will be narrowed and better defined in the rubrics. The way the WAF department had this Blackboard class set up limited access of data and information to use for assessing purposes. The setup of WAF courses in BB has already been changed to rectify this issue.

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

This information will be shared with Departmental Faculty in the next Department meeting.

3. Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Course Assignments	One of the welded assignments will include an ISO standards component.	ISO standards are important for welding personnel to have knowledge of since the welding industry is becoming more globalized.	2018

4. Is there anything that you would like to mention that was not already captured?

5.

III. Attached Files

- [Column Stats Open Vessel Print](#)
- [Column Stats of Open Vessel Project](#)
- [Column Stats of Week 9 Quiz](#)
- [Rubrics for Project/Print #2](#)
- [Column Stats of Weld Print #2](#)
- [Column Stats of Weld Project #2](#)
- [Column Stats of WPS Quiz](#)
- [Rubrics for Open Vessel Project/Print](#)

Faculty/Preparer: Amanda Scheffler **Date:** 12/10/2017
Department Chair: Glenn Kay II **Date:** 12/12/2017
Dean: Brandon Tucker **Date:** 12/27/2017
Assessment Committee Chair: Michelle Garey **Date:** 01/29/2018