

**Course Assessment Report
Washtenaw Community College**

Discipline	Course Number	Title
Mechatronics	101	MEC 101 11/29/2018-3D Modeling and Blueprint Reading
Division	Department	Faculty Preparer
Advanced Technologies and Public Service Careers	Advanced Manufacturing	Scott Malnar
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: Interpret blueprints used within manufacturing.

- Assessment Plan
 - Assessment Tool: Written Test
 - Assessment Date: Fall 2015
 - 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 the students will achieve 75% 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)
2018, 2017		

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

# of students enrolled	# of students assessed
46	42

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 withdrew from the course.

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 four sections met face to face on campus: one in the morning, two in the afternoon and one in the evening.

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

This course was assessed using the final exam on how to interpret Blueprints used within manufacturing. The exam was made up of multiple choice, true-or-false and short answer questions. All questions were 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
 95% of students scored 75% or higher on the final exam. This exceeded the standard of success which was 75% of the students will achieve 75% or higher.

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

For the majority of students, the basic principles and concepts were entirely new. As long as the students completed all assignments and attended the lectures, they had a very good understanding of the material needed to be successful.

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.

Student attendance is critical to not missing any key concepts that they struggle with on the exam. We are proud of the results and are constantly looking for ways to improve.

Outcome 2: Create 3D models using engineering modeling software.

- Assessment Plan
 - Assessment Tool: Capstone Project
 - Assessment Date: Fall 2015
 - 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 the students will attain 75% 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)
2017, 2018		

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

# of students enrolled	# of students assessed
46	42

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 withdrew from the course.

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 four courses met face to face on campus: one in the morning, two in the afternoon and one in the evening.

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

This outcome is now taught in MEC 120. The new outcome is going to be, "Identify third angle and first angle projections used in machining processes."

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

There are no results for this outcome because it is now in MEC 120.

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

There are no results for this outcome because it is now in MEC 120.

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.

There are no results for this outcome because it is now in MEC 120.

Outcome 3: Transfer files to advanced manufacturing systems used to manufacture parts.

- Assessment Plan
 - Assessment Tool: Capstone projects
 - Assessment Date: Fall 2015
 - 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: 90% of the students will be able to successfully transfer files.
- 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)
2017, 2018		

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

# of students enrolled	# of students assessed
46	42

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 withdrew from the course.

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 four courses met face to face on campus: one in the morning, two in the afternoon and one in the evening.

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

This outcome is now taught in MEC 120. The new outcome is going to be, "Identify third angle and first angle projections used in machining processes."

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
There are no results for this outcome because it is now in MEC 120.

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

There are no results for this outcome because it is now in MEC 120.

- 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.

There are no results for this outcome because it is now in MEC 120.

III. Course Summary and Intended Changes Based on Assessment Results

- 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.

N/A

- 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?

Students are learning the intended material and achieving the standard of success.

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

The information will be shared at our scheduled department meeting.

- Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Outcome Language	I am adding two outcomes to replace the outcomes that are currently in NCT120 and MEC120.	New outcomes are relevant to the information taught in the course and will generate assessment data.	2019

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

6.

III. Attached Files

[MEC101 data](#)

Faculty/Preparer:

Scott Malnar

Date: 06/26/2019

Department Chair: Thomas Penird **Date:** 07/02/2019
Dean: Brandon Tucker **Date:** 07/08/2019
Assessment Committee Chair: Shawn Deron **Date:** 08/19/2019