

**Course Assessment Report
Washtenaw Community College**

Discipline	Course Number	Title
Auto Services (new)	277	ASV 277 03/01/2021- Automotive Powertrain Systems
College	Division	Department
Advanced Technologies and Public Service Careers	Advanced Technologies and Public Service Careers	Transportation Technologies
Faculty Preparer		Allen Day
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: Apply principles of testing and validation during an emission test cycle to determine vehicle emissions output during the test.

- Assessment Plan
 - Assessment Tool: Project
 - Assessment Date: Fall 2016
 - 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: 75% of students will score 75% or better.
- Who will score and analyze the data: ASV 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, 2020, 2019		

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

# of students enrolled	# of students assessed
52	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.

All registered students that participated in this course academically during the Fall 2019, Fall 2020, and Fall 2021 semesters were included in this report. There is only one section of this course offered each year.

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 offered as a face-to-face course. Only one section of this course offered each year, but the course is offered in the afternoon one year and then at night the next time it is offered.

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

The project was assessed using a rubric with a total of 140 points. The rubric required students to write and execute an emissions test sequence. They were required to collect data during the execution of the emissions test sequence. They analyzed that data for sensor validity and emissions output levels. They submitted the data with their determinations through Blackboard assignments.

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

40 out of 52 students completed all parts of this project. 47 out of 52 (90%) students scored 75% or better. The standard of success was met using this outcome and project-based tool.

Two students failed to complete any of the steps of the project but were able to complete the emissions test report using instructor provided sample data. The scores for those students on the project did not achieve at or above the defined level of success, and it could not because of the higher number of points for the report.

One student completed all of the steps in lab but failed to turn in the Blackboard assignment for the project report.

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

40 out of 52 students in these sections were able to complete all of the parts of this project. Those students were also 40 of the 47 students that scored 75% or better. The students that were able to attend their scheduled lab time were all successful at all of the portions of this project. Many of them also earned 100% of the possible points.

This project has fail safes built in. 7 of the students were unable to earn any points on one or more portions of this project but were still able to meet the standard for success. 9 students failed to earn any points in one portion but were able to later recover and continue with the 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.

11 students missed one or more lab sessions, and subsequently scored lower on portions of the project. These students scored zero for one or more portions of the project. Because the project builds step by step and there are limited lab resources, it is very hard to miss a lab session and go back and make up for missed work.

There is a system in place for the students to move forward with the next portion of the project if they cannot complete the subsequent steps. This system does not easily accommodate moving backwards for makeup work.

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.

This is the first assessment report for this course.

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?

I was surprised that some students will complete all of the requisite items in the course to be able to complete the project, but not submit the project. This pattern is uncommon, and it only occurred with 2 out of 52 students.

I do feel that there should be more granularity in the analysis of each student's performance. This will allow for better analysis of the student's success in the event that a student does not complete all of the tasks associated with the project. This should be done with more specific outcomes and objectives.

Four new outcomes will be added to an update to the master syllabus that will be submitted with this assessment report.

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

The updates to the grading and the associated Blackboard columns in MyGrades will be added to the "All Sections" master Blackboard site. This report will be approved by the Department Chairs and has already been discussed with the other departmental instructors that teach this course.

- 4.

Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Other: Outcome and objective overhaul	The outcomes and objectives will be updated to move this course from conditional approval to full approval.	This course is conditionally approved and currently only has one outcome. Additional outcomes are necessary to assess students'	2022

		performance in depth.	
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5. Is there anything that you would like to mention that was not already captured?

6.

III. Attached Files

[Compiled Data Fall 2019-2020-2021 ASV277](#)

Faculty/Preparer: Allen Day **Date:** 05/05/2022
Department Chair: Rocky Roberts **Date:** 05/20/2022
Dean: Jimmie Baber **Date:** 05/26/2022
Assessment Committee Chair: Shawn Deron **Date:** 08/31/2022