

**Course Assessment Report
Washtenaw Community College**

Discipline	Course Number	Title
Auto Services (new)	258	ASV 258 12/07/2022-Engine Drivability
College	Division	Department
Advanced Technologies and Public Service Careers	Advanced Technologies and Public Service Careers	Transportation Technologies
Faculty Preparer		Justin Carter
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?

Yes
This course was last assessed through Fall 2018.

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

Student learning outcomes 1 and 2 did not meet the standard of success. Student learning outcomes 3 and 4 met the standard of success.

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

The department planned on authoring our own texts, lab books and course pack materials. This along with the addition of WCC instructor-written departmental exams on Blackboard would help to improve the process of aggregating assessment data.

II. Assessment Results per Student Learning Outcome

Outcome 1: Interpret drivability faults using vehicle service information.

- Assessment Plan
 - Assessment Tool: Departmental exam
 - Assessment Date: Fall 2022
 - Course section(s)/other population: All

- Number students to be assessed: All
- How the assessment will be scored: Exam answer sheet
- Standard of success to be used for this assessment: 75% of students will score 75% or better
- 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)
2022, 2021, 2020	2022, 2021, 2020	2022

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

# of students enrolled	# of students assessed
83	73

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.

Fall 2019 Blackboard Grade Center Data is not available; Winter 2023 is not included in this assessment cycle.

Total number of students enrolled in ALL sections is incorrect for Fall 2020 in Curricunet due to one instructor preview user data included incorrectly.

One student was not included in the sample from Winter 2022 due to course audit.

Nine students in this sample did not complete the activity.

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.

The assessment population included day students on campus.

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

The departmental exam was scored by 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>Yes</u>
67 of 73 (92%) of the students in the sample met the standard of success for this outcome.
Six students scored below the standard of success for this outcome.

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

The departmental exam questions seemed to accurately measure the students' ability to gain an introductory level of drivability diagnosis.
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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.

As a result of the Fall 2022 mixed-mode development cycle, the assessment tool questions for this outcome has been revised to more accurately measure student learning.

Outcome 2: Diagnose and repair Powertrain Control Module (PCM) inputs and outputs.

- Assessment Plan
 - Assessment Tool: Departmental written exam
 - Assessment Date: Fall 2022
 - Course section(s)/other population: All
 - Number students to be assessed: All
 - How the assessment will be scored: Exam answer sheet
 - Standard of success to be used for this assessment: 75% of students will score an average of 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)
2022, 2021, 2020	2022, 2021, 2020	2022

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

# of students enrolled	# of students assessed
83	63

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.

Fall 2019 Blackboard Grade Center Data is not available; Winter 2023 is not included in this assessment cycle.

Total number of students enrolled in ALL sections is incorrect for Fall 2020 Curricunet due to one instructor preview user data included incorrectly.

One student was not included in the sample from Winter 2022 due to course audit.

18 students did not complete the activity.

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.

The assessment population included day students on campus.

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

The departmental exam was scored by 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: Yes

50 of 63 (79%) of the students met the standard of success for this outcome.

13 students scored below the standard of success for this outcome.

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

Assessment Tool #1: The departmental exam questions seemed to accurately measure the students' ability diagnose and repair the most commonly PCM inputs

and outputs associated with drivability problems.

Assessment Tool #2: There was no assessment data from the practical exam for this outcome to interpret.

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.

As a result of the course revisions from the Fall 2022 mixed-mode development cycle, the practical exam assessment tool for this outcome was revised to a quiz in order to adequately measure student learning.

Outcome 2: Diagnose and repair Powertrain Control Module (PCM) inputs and outputs.

- Assessment Plan
 - Assessment Tool: Practical exam
 - Assessment Date: Fall 2022
 - Course section(s)/other population: All
 - Number students to be assessed: All
 - How the assessment will be scored: Skills checklist
 - Standard of success to be used for this assessment: 75% of students will score an average of 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)
2022, 2021, 2020	2022, 2021, 2020	2022

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

# of students enrolled	# of students assessed
83	0

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.

Fall 2019 Blackboard Grade Center Data is not available; Winter 2023 is not included in this assessment cycle.

Total number of students enrolled in ALL sections is incorrect due to one instructor's preview user data included from Fall 2020.

82 students did not complete the activity.

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.

No students were assessed.

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

The practical exam was not administered.

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

Assessment cannot be performed using the tool assigned to this outcome: no data available from the practical exam; it was not deployed.

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

Assessment Tool #1: The departmental exam questions seemed to accurately measure the students' ability diagnose and repair the most commonly PCM inputs and outputs associated with drivability problems.

Assessment Tool #2: There was no assessment data from the practical exam for this outcome to interpret.

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.

As a result of the course revisions from the Fall 2022 mixed-mode development cycle, the practical exam assessment tool for this outcome was revised to a quiz in order to adequately measure student learning.

Outcome 3: Diagnose and repair drivability related PCM fault codes.

- Assessment Plan
 - Assessment Tool: Departmental written exam
 - Assessment Date: Fall 2022
 - Course section(s)/other population: All
 - Number students to be assessed: All
 - How the assessment will be scored: Exam answer sheet
 - Standard of success to be used for this assessment: 75% of students will score an average of 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)
2022, 2021, 2020	2022, 2021, 2020	2022

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

# of students enrolled	# of students assessed
83	66

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.

Fall 2019 Blackboard Grade Center Data is not available; Winter 2023 is not included in this assessment cycle.

Total number of students enrolled in ALL sections is incorrect for Fall 2020 and Winter 2021 in Curricunet due to two instructors' preview user data included incorrectly.

One student was not included in the sample from Winter 2022 due to course audit.

19 students did complete the activity.

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.

The assessment population included day students on campus.

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

The departmental exam was scored by 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: No

45 of 66 (68%) of the students met the standard of success for this outcome.

21 students scored below the standard of success for this outcome.

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

Assessment Tool #1: The departmental exam questions seemed to accurately measure the students' ability to diagnose drivability-related fault codes; the assessment tool questions use straightforward, clear and concise wording.

Assessment Tool #2: There was no assessment data from the practical exam for this outcome to interpret.

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.

Learning outcome #3 student success rate can be improved by using the practical exam as an assessment tool.

As a result of the course revisions from the Fall 2022 mixed-mode development cycle, the practical exam assessment tool for this outcome was revised to a quiz in order to adequately measure student learning

Outcome 3: Diagnose and repair drivability related PCM fault codes.

- Assessment Plan
 - Assessment Tool: Practical exam
 - Assessment Date: Fall 2022
 - Course section(s)/other population: All
 - Number students to be assessed: All
 - How the assessment will be scored: Skills checklist
 - Standard of success to be used for this assessment: 75% of students will score an average of 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)
2022, 2021, 2020	2022, 2021, 2020	2022

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

# of students enrolled	# of students assessed
83	0

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.

Fall 2019 Blackboard Grade Center Data is not available; Winter 2023 is not included in this assessment cycle.

Total number of students enrolled in ALL sections is incorrect due to one instructor's preview user data included from Fall 2020.

82 students did not complete the activity.

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.

No students were assessed.

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

The practical exam was not administered.

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

Assessment cannot be performed using the tool assigned to this outcome: no data available from the practical exam; it was not deployed.

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

Assessment Tool #1: The departmental exam questions seemed to accurately measure the students' ability to diagnose drivability-related fault codes; the assessment tool questions use straightforward, clear and concise wording.

Assessment Tool #2: There was no assessment data from the practical exam for this outcome to interpret.

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.

Learning outcome #3 student success rate can be improved by using the practical exam as an assessment tool.

As a result of the course revisions from the Fall 2022 mixed-mode development cycle, the practical exam assessment tool for this outcome was revised to a quiz in order to adequately measure student learning

Outcome 4: Use scan tool datastreams and tool protocols to diagnose and repair engine management systems.

- Assessment Plan
 - Assessment Tool: Departmental exam
 - Assessment Date: Fall 2022
 - Course section(s)/other population: All

- Number students to be assessed: All
- How the assessment will be scored: Exam answer sheet
- Standard of success to be used for this assessment: 75% of students will score an average of 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)
2022, 2021, 2020	2022, 2021, 2020	2022

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

# of students enrolled	# of students assessed
83	62

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.

Fall 2019 Blackboard Grade Center Data is not available; Winter 2023 is not included in this assessment cycle.

Total number of students enrolled in ALL sections is incorrect for Fall 2020 Curricunet due to one instructor preview user data included incorrectly.

One student was not included in the sample from Winter 2022 due to course audit.

20 students did not complete the activity.

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.

The assessment population included day students on campus.

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

The departmental exam was scored by 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>
45 of 62 (68%) of the students in the sample met the standard of success for this outcome.
17 students did not meet 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.

The departmental exam questions seem to adequately measure the higher performing, more experienced students' ability to use scan tool datastreams when diagnosing drivability concerns.

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.

The departmental exam questions did not provide a strong assessment of this outcome. A performance-focused tool, such as a post-learning module practical quiz should be used instead. Quizzes deployed at the end of each learning module will help ascertain which students understand how to use scan tool datastreaming effectively.
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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.

Efficacy of intended changes from the previous course assessment is summarized in the table:			
Intended Change (previous assessment)	Description of the change	Rationale	Student learning Improvement level
Outcome Language	Revised outcome 1 language; more detail and stronger verbiage concerning service information.	Revised outcome language to obtain a better measure of student learning.	Satisfactory level of improvement noted, see below: Previous Assessment 38 of 69 students (55%) answered the questions correctly. The standard of success was not met.

			<p>Current Assessment:</p> <p>75 of 78 (96%) of the students in the sample met the standard of success for this outcome.</p>
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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?

Outcomes 1, 2, 3 and 4 assessment tools were intended to measure the student's level of learning. They did not seem to align correctly with the outcome language.

The predicted level of student success for the assessment (75% of the students will score 75% or higher on the assessment), was not met in outcome #3 and outcome #4.

Some of the departmental exam assessment tool questions did not seem to measure the students' understanding of the material.

The four learning outcomes will be revised and the assessment tools will be changed to module quizzes to focus more on what the students will learn in the course during the mixed mode delivery model.

The course instruction is divided into two portions; a portion of the course is delivered virtually via Blackboard and the other is the face-to-face lab instruction.

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

The results of the assessment report will be shared with departmental faculty via google drive once the review and approval process is complete.

4. Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Assessment Tool	The four learning outcome assessment tools (department	The benefits of replacing the departmental exams	2023

	exams and practical exams) will be replaced with end of module quizzes to align with mixed mode instructional content.	with each learning module quizzes facilitates a more specific analysis (a snapshot) of the student understanding of the course material in smaller, more manageable portions and allow the instructor to adjust content delivery to improve overall teaching effectiveness.	
Assessment Tool	Remove practical exam from learning outcome #2 and learning outcome #3.	<p>Outcome 2: Diagnose and repair Powertrain Control Module (PCM) inputs and outputs:</p> <p>The learning module wrap-up quizzes should allow the students an improved opportunity to demonstrate their level of understanding for outcome 2.</p> <p>Outcome 3: Diagnose and repair drivability-related PCM fault codes.</p> <p>The learning module wrap-up quizzes should allow the students an improved opportunity to demonstrate their</p>	2023

		level of understanding for outcome 3.	
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5. Is there anything that you would like to mention that was not already captured?

One proposed change, as a result of the previous assessment in 2019, "The department planned on authoring our own texts, lab books and course pack materials" was completed during the Fall 2022 mixed mode development process. A course lab book has been completed and the students are currently using it in the course.

III. Attached Files

[Blackboard Module End Quiz Example](#)
[2023 ASV258AssessmentData Outcome#3](#)
[2023 ASV258AssesmentData Outcome#2](#)
[2023 ASV258AssessmentData Outcome#1](#)
[2023 ASV258AssessmentData Outcome#4](#)

Faculty/Preparer: Justin Carter **Date:** 05/23/2023
Department Chair: Rocky Roberts **Date:** 05/27/2023
Dean: Jimmie Baber **Date:** 06/07/2023
Assessment Committee Chair: Jessica Hale **Date:** 03/13/2024

**Course Assessment Report
Washtenaw Community College**

Discipline	Course Number	Title
Auto Services (inactive)	258	ASV 258 10/25/2018- Engine Drivability
Division	Department	Faculty Preparer
Advanced Technologies and Public Service Careers	Automotive Services	Justin Carter
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: Read and interpret vehicle service manuals.

- Assessment Plan
 - Assessment Tool: Common departmental exam; NATEF checklist
 - Assessment Date: Fall 2011
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students
 - How the assessment will be scored: Common departmental exam will be scored using an answer sheet. NATEF checklist will be scored using the departmentally-developed rubric.

- Standard of success to be used for this assessment: 70% of students will score an average of 70% or higher.
- Who will score and analyze the data: Departmental faculty will blind-score data when possible.

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, 2016	2018, 2017, 2016	

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

# of students enrolled	# of students assessed
105	73

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.

Blackboard exam data was not available on Blackboard for the following sections: ASV 258 Winter 2017 and Fall 2018.

NATEF tasklist data from completed student work order reports was not useable.

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.

Day and evening students on campus.

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

Exam scored by Blackboard with item analysis and NATEF checklist scoring rubric from CTE3.com

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

Assessment cannot be performed on the tools assigned to this outcome: no data available from the departmental exam or NATEF checklist.

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

There was no useable assessment data for this outcome to interpret.

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.

The exam questions did not seem to provide a strong assessment of this outcome. A performance-focused tool and a rubric should be used instead. A quiz given in the first week of class could help identify which students understand how to use the service manuals effectively.

Outcome 2: Diagnose and repair engine management electrical circuits.

- Assessment Plan
 - Assessment Tool: Common departmental exam; NATEF checklist
 - Assessment Date: Fall 2011
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students
 - How the assessment will be scored: Common departmental exam will be scored using an answer sheet. NATEF checklist will be scored using the departmentally-developed rubric.
 - Standard of success to be used for this assessment: 70% of students will score an average of 70% or higher.
 - Who will score and analyze the data: Departmental faculty will blind-score data when possible.

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, 2016	2018, 2016	

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

# of students enrolled	# of students assessed
73	69

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 from the sample 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.

Day and evening students on campus.

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

Exam question item analysis scored by 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: No

38 of 69 students (55%) answered the questions correctly. 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.

The departmental exam questions seemed to accurately measure the students' ability to gain an introductory level of drivability diagnosis.

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 need more instruction time to learn how use to the latest engine management diagnostic techniques with the latest scan tool software. A quiz in the first class will help identify the degree to which students understand how to use the scan tools correctly.

Outcome 3: Diagnose and repair engine codes.

- Assessment Plan

- Assessment Tool: Common departmental exam; NATEF checklist
- Assessment Date: Fall 2011
- Course section(s)/other population: All sections
- Number students to be assessed: All students
- How the assessment will be scored: Common departmental exam will be scored using an answer sheet. NATEF checklist will be scored using the departmentally-developed rubric.
- Standard of success to be used for this assessment: 70% of students will score an average of 70% or higher.
- Who will score and analyze the data: Departmental faculty will blind-score data when possible.

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)
2016	2018, 2016	

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

# of students enrolled	# of students assessed
54	43

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.

<p>Four students from the sample withdrew from the class;</p> <ul style="list-style-type: none"> ○ six students did not complete question 1. ○ five students did not complete question 2. ○ six students did not complete question 3.
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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.

Day and evening students on campus.

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

Departmental exam scored by Blackboard with item analysis.

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

35 out of 43 (81%) students answered question 1 correctly.

40 out of 45 (88%) students answered question 2 correctly.

35 out of 44 (79%) students answered question 3 correctly.

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

The questions adequately measured the students' ability to diagnose engine fault codes and showed they could follow through with the correct repair sequence.

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.

The assessment process identified areas of strength for this outcome. Only minor outcome language revision is needed to ensure continued course improvement.

Outcome 4: Demonstrate the proper use of scan tools and processes when diagnosing fuel, electrical and emission systems.

- Assessment Plan
 - Assessment Tool: Common departmental exam; NATEF checklist
 - Assessment Date: Fall 2011
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students
 - How the assessment will be scored: Common departmental exam will be scored using an answer sheet. NATEF checklist will be scored using the departmentally-developed rubric.

- Standard of success to be used for this assessment: 70% of students will score an average of 70% or higher.
- Who will score and analyze the data: Departmental faculty will blind-score data when possible.

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)
2016	2018, 2016	

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

# of students enrolled	# of students assessed
54	43

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 from the sample withdrew from the class;

- six students did not complete question 1.
- seven students did not complete question 2.
- five students did not complete question 3.

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.

Day and evening students on campus.

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

Departmental exam scored by Blackboard with item analysis.

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

35 out of 43 (81%) students answered question 1 correctly.

31 out of 43 (72%) students answered question 2 correctly.

39 out of 45 (86%) students answered question 3 correctly.

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

The written exam questions seemed to adequately gauge the students' ability to diagnose defective engine management components using scan tools.

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.

The assessment process identified areas of strength for this outcome. Only minor outcome language revision is needed to ensure continued course improvement.

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 report.

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?

Outcomes intended to meet the needs of the students were satisfactory with room for improvement. Having taught this course several semesters, my impression is that the student achievement results need to have a higher level of success for all outcomes.

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

The results of the assessment report will be shared with departmental faculty via google drive once the review and approval process is complete.

4. Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Outcome Language	Revise outcome 1 language; more detail and stronger verbiage concerning service information.	Revise outcome language to obtain a better measure of student learning.	2019
Assessment Tool	Delete NATEF tasklist as assessment tool in outcomes 1 through 4.	Cannot use data from CTE3.com to assess student learning outcomes.	2019
Objectives	Add objectives to match outcomes; minimum 3 objectives per outcome.	Follow assessment committee recommendation.	2019
Pre-requisite	Add ASV 131 OR 133 as prerequisite.	Need to make change for new program.	2019
Course Materials (e.g. textbooks, handouts, on-line ancillaries)	Update textbook edition to #7.	Later textbook edition released.	2019

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

The department will be taking measures to author our own texts, lab books and course pack materials. This along with the addition of WCC instructor-written departmental exams on Blackboard should help to improve the process of aggregating assessment data.

III. Attached Files

[Outcome #4/Question 2/ Fall 2016](#)
[NATEF checklist CTE3.com Rubric Example](#)
[Outcome #3/Question 2/ Fall 2016](#)
[Outcome #3/Question 2/ Winter 2018](#)
[Outcome #3/Question 3/ Winter 2016](#)
[Outcome #3/Question 3/ Fall 2016](#)
[Outcome #3/Question 3/ Winter 2016](#)
[Outcome #3/Question 3/ Winter 2018](#)
[Outcome #4/Question 2/ Winter 2018](#)
[Outcome #4/Question 2/ Winter 2016](#)
[Outcome #4/Question 3/ Winter 2016](#)

[Outcome #4/Question 3/ Fall 2016](#)
[Outcome #4/Question 3/ Winter 2018](#)
[Outcome 3&4 /Question 1/ Winter 2016](#)
[Outcome 3&4 /Question 1/ Fall 2016](#)
[Outcome 3&4 /Question 1/ Winter 2018](#)
[Outcome #2 Question](#)

Faculty/Preparer:	Justin Carter	Date: 04/27/2019
Department Chair:	Justin Morningstar	Date: 04/29/2019
Dean:	Brandon Tucker	Date: 05/19/2019
Assessment Committee Chair:	Shawn Deron	Date: 07/09/2019