Course Assessment Report
Washtenaw Community College

Discipline	Course Number	Title
Auto Services (new)	256	ASV 256 04/08/2022-Electrical and Electronic Systems
College	Division	Department
Advanced Technologies and Public Service Careers	Advanced Technologies and Public Service Careers	Transportation Technologies
Faculty Preparer		Justin Morningstar
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 in Winter 2015.

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

   The last assessment was the first time that the course had ever been assessed. It used a NATEF checklist that is no longer used. Currently we are using common departmental exams.

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

   The assessment process showed that some work was needed on the master syllabus, specifically on how the outcomes are assessed. The laboratory-based skills in outcomes 1 and 4 were being assessed by a common departmental exam, and this method of assessment was changed to a NATEF Skills checklist. Outcomes 2 and 3 were being assessed by both a common departmental exam and a NATEF Skills checklist, and the common departmental exam was determined to be sufficient for assessment.

II. Assessment Results per Student Learning Outcome

Outcome 1: Read and interpret wiring diagrams and vehicle service manuals.

- Assessment Plan

- Assessment Tool: Departmental/NATEF checklist
- Assessment Date: Winter 2020
- Course section(s)/other population: All sections
- Number students to be assessed: All students
- How the assessment will be scored: The NATEF requirements will be included in a departmetally-developed checklist that will be used to assess student performance.
- Standard of success to be used for this assessment: 70% of students will score an average of 3 out of 5 or higher on all outcome-related items on the checklist
- Who will score and analyze the data: Departmental faculty

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

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

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

# of students enrolled	# of students assessed
18	13

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.

13 out of 18 students were assessed because one withdrew and four did not complete the assessment tool.

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.

We assessed students from Fall of 2019 that met on campus face-to-face.

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

We have switched from the NATEF checklist to a common departmental exam for each outcome that consists of a pool of 40 outcome-specific questions. From that pool each student receives 20 questions randomly (small variations for each of the

questions exist, consisting of wording changes or scenario specifics such as voltage number changes). We score each question 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
In the original master syllabus it stated, "70% of students will score an average of 3 out of 5 or higher on all outcome-related items on the checklist." As we are using a different tool, we have updated the standard of success to "70% of the students will score 70% or higher." After compiling the summary data, we found that 100% of the students scored 70% or higher for this outcome.

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

As a department we constantly strive to stay current with the fast-paced changes that happen within our field. Students must understand how to read and interpret wiring diagrams and vehicle service manuals to be successful in the laboratory setting. The outcome exam was specifically developed for the advanced level students and builds off of information and techniques learned in our basic level courses. The wide demographic of age range and life experience is an unspoken aspect of this data. Adult learners in the class who have work experience and employment in the field most certainly have an advantage over traditional students. We exceeded the standard of success for this outcome with 100% of the students scoring 70% or higher.

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 students met the standard of success for outcome #1 (read and interpret wiring diagrams and vehicle service manuals). For continuous improvement we plan to monitor and update the exam questions as related to industry updates. We also plan to monitor course curriculum to maintain standards among all sections and faculty teaching this course. Continuing to promote advanced level student co-op participation will further continuous improvement because students in the class who have work experience and employment in the field most certainly have an advantage over traditional students.

Outcome 2: Diagnose and identify appropriate repair for electrical circuits.

- Assessment Plan
    - Assessment Tool: Common departmental exam
    - Assessment Date: Winter 2020
    - 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
    - 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)
2019		

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

# of students enrolled	# of students assessed
18	13

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.

13 out of 18 students were assessed because one withdrew and four did not complete the assessment tool.

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.

We assessed students from Fall of 2019 that met on campus face-to-face.

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

We have switched from the NATEF checklist to a common departmental exam for each outcome that consists of a pool of 40 outcome-specific questions. From that pool each student receives 20 questions randomly (small variations for each of the

questions exist, consisting of wording changes or scenario specifics such as voltage number changes). We score each question 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

The original master syllabus stated, "70% of students will score an average of 3 out of 5 or higher on all outcome-related items on the checklist." As we are using a different tool, we have updated the standard of success to "70% of the students will score 70% or higher."

After compiling the summary data we found that 92% of the students scored 70% or higher for this outcome.

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

As a department, we constantly strive to stay current with the fast-paced changes that happen within our field. Students must understand how to diagnose and repair electrical circuits efficiently to be successful in the laboratory setting. The outcome exam was specifically developed for the advanced level students and builds off of information and techniques learned in our basic level courses. The wide demographic of age range and life experience is an unspoken aspect of this data. Adult learners in the class who have work experience and employment in the field most certainly have an advantage over traditional students. We exceeded the standard of success for this outcome with 92% of the students scoring 70% or higher.

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 students met the standard of success for outcome #2 (diagnose and repair electrical circuits). For continuous improvement we plan to monitor and update the exam questions as related to industry updates. We also plan to monitor course curriculum to maintain standards among all sections and faculty teaching this course. Continuing to promote advanced level student co-op participation will further continuous improvement because students in the class who have work experience and employment in the field most certainly have an advantage over traditional students.

Outcome 3: Diagnose and evaluate electrical components, motors, actuators and audio and instrumentation circuits.

- Assessment Plan
    - Assessment Tool: Common departmental exam
    - Assessment Date: Winter 2020
    - 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
    - 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)
2019		

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

# of students enrolled	# of students assessed
18	13

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.

13 out of 18 students were assessed because one withdrew and four did not complete the assessment tool.

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.

We assessed students from Fall of 2019 that met on campus face-to-face.

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

We have switched from the NATEF checklist to a common departmental exam for each outcome that consists of a pool of 40 outcome-specific questions. From that pool each student receives 20 questions randomly (small variations for each of the questions exist, consisting of wording changes or scenario specifics such as voltage number changes). We score each question 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

The original master syllabus stated, "70% of students will score an average of 3 out of 5 or higher on all outcome-related items on the checklist." As we are using a different tool, we have updated the standard of success to "70% of the students will score 70% or higher."

After compiling the summary data, we found that 100% of the students scored 70% or higher for this outcome.

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

As a department, we constantly strive to stay current with the fast-paced changes that happen within our field. Students must understand how to diagnose and evaluate electrical components to be successful in the laboratory setting. The outcome exam was specifically developed for the advanced level students and builds off of information and techniques learned in our basic level courses. The wide demographic of age range and life experience is an unspoken aspect of this data. Adult learners in the class who have work experience and employment in the field most certainly have an advantage over traditional students. We exceeded the standard of success for this outcome with 100% of the students scoring 70% or higher.

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 students met the standard of success for outcome 3: Diagnose and evaluate electrical components, motors, actuators and audio and instrumentation circuits. For continuous improvement, we plan to monitor and update the exam questions as it related to industry updates. We also plan to monitor course curriculum to maintain standards among all sections and faculty teaching this course. Continuing to promote advanced level student co-op participation will further continuous improvement because students in the class who have work experience and

employment in the field most certainly have an advantage over traditional students.

Outcome 4: Demonstrate the proper use of tools and processes of electrical system diagnosis.

- Assessment Plan
    - Assessment Tool: Departmental/NATEF checklist.
    - Assessment Date: Winter 2020
    - Course section(s)/other population: All sections
    - Number students to be assessed: All students
    - How the assessment will be scored: The NATEF requirements will be included in a departmetally-developed checklist that will be used to assess student performance
    - Standard of success to be used for this assessment: 70% of students will score an average of 3 out of 5 on all outcome-related items on the NATEF skills checklist, which means that they meet expectations
    - Who will score and analyze the data: Departmental faculty

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

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

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

# of students enrolled	# of students assessed
18	13

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.

13 out of 18 students were assessed because one withdrew and four did not complete the assessment tool.

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.

We assessed students from Fall of 2019 that met on campus face-to-face.

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

We have switched from the NATEF checklist to a common departmental exam for each outcome that consists of a pool of 40 outcome-specific questions. From that pool each student receives 20 questions randomly (small variations for each of the questions exist, consisting of wording changes or scenario specifics such as voltage number changes). We scored each question 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
The original master syllabus stated, "70% of students will score an average of 3 out of 5 or higher on all outcome-related items on the checklist." As we are using a different tool, we have updated the standard of success to "70% of the students will score 70% or higher." After compiling the summary data, we found that 100% of the students scored 70% or higher for this outcome.

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

As a department, we constantly strive to stay current with the fast-paced changes that happen within our field. Students must demonstrate the proper use of tools and processes of electrical system diagnosis to be successful in the laboratory setting. The outcome exam was specifically developed for the advanced level students and builds off of information and techniques learned in our basic level courses. The wide demographic of age range and life experience is an unspoken aspect of this data. Adult learners in the class who have work experience and employment in the field most certainly have an advantage over traditional students. We exceeded the standard of success for this outcome with 100% of the students scoring 70% or higher.

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 students met the standard of success for outcome #4 (demonstrate the proper use of tools and processes of electrical system diagnosis). For continuous improvement, we plan to monitor and update the exam questions as related to

industry updates. We also plan to monitor course curriculum to maintain standards among all sections and faculty teaching this course. Continuing to promote advanced level student co-op participation will further continuous improvement because students in the class who have work experience and employment in the field most certainly have an advantage over traditional students.

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.

   The NATEF skills checklist changes to outcomes 1 and 4 need to be updated to common departmental exam for proper data collection.

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?

   Overall, this class is doing an excellent job of meeting the needs of our students. The data shows that students who attend the class in its entirety have a high success rate. The assessment process showed that some work needs to be done on the master syllabus, specifically on how the outcomes are assessed. Currently the outcomes being assessed by both a common departmental exam and a NATEF Skills checklist; going forward, a common departmental exam should prove to be appropriate and sufficient.

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

   During our next scheduled department meeting, I will present my action plan based on this assessment. I will point out areas of success and weakness, and give my recommendations for improvement.

4. Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Assessment Tool	Currently outcomes 1 and 4 are assessed by both a common departmental exam and the NATEF Skills checklist. Moving forward, a	The NATEF skills checklist does not provide outcome-specific data that aligns with the course outcomes. After	2022

	common departmental-developed exam with outcome-related questions should prove to be more appropriate and will provide sufficient data.	holding discussions within the department we have decided to use the common departmentally-developed exams for each outcome and remove the NATEF checklist. After the next round of assessment occurs we may need to revisit the exam questions to ensure the tool is working appropriately.	
Course Assignments	Monitor outcome-related questions within each outcome exam.	We will ensure that the outcome-related exam questions within each exam pool maintains alignment with industry advances and adjust/update them as needed.	2022
Other: co-op participation	Promote advanced level student co-op participation.	For continuous improvement, as students with work experience and employment in the field have an advantage over traditional students.	2022

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

6.

III. Attached Files

ASV 256 Summary Data

Faculty/Preparer: Justin Morningstar **Date:** 04/15/2022

Department Chair: Rocky Roberts **Date:** 04/18/2022

Dean: Jimmie Baber **Date:** 04/19/2022

Assessment Committee Chair: Shawn Deron **Date:** 08/31/2022

Course Assessment Report
Washtenaw Community College

Discipline	Course Number	Title
Auto Services	256	ASV 256 03/31/2016-Electrical and Electronic Systems
Division	Department	Faculty Preparer
Advanced Technologies and Public Service Careers	Automotive Services	Justin Morningstar
Date of Last Filed Assessment Report		

I. Assessment Results per Student Learning Outcome

Outcome 1: Read and interpret wiring diagrams and 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)
	2015	

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

# of students enrolled	# of students assessed
18	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.

14 out of 18 students assessed because one withdrew and three did not complete 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.

I assessed students from the only section, Winter 2015.

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

Common assessment for all sections using common departmental exam. Evaluation Scale[5]Superior[4]Excellent[3]Average[2]Below Avg[1]Incomplete N/A Not Available for viewing/evaluation. Scores of 5, 4 or 3 are considered "proficient." NATEF checklist not used due to being unable to collect specific section data. Recommend removing this as an assessment tool for this outcome.

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
Outcome #1. Read and interpret wiring diagrams and vehicle service manuals. Evaluation Scale[5]Superior[4]Excellent[3]Average[2]Below Avg[1]Incomplete N/A Not Available for viewing/evaluation. Scores of 5, 4 or 3 are considered "proficient." Based off common departmental Blackboard exam used in all sections Results from common departmental exam:

[5]Superior = 9 Students

[4]Excellent = 5 Students

[3]Average[= 0 Students

[2]Below Avg = 0 Students

[1]Incomplete N/A Not Available for viewing/evaluation = 4 Students

The standard of success was met for this outcome because over 70% of students scored an average of 70% or higher.

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

Students must understand how to read and interpret wiring diagrams and vehicle service manuals to be successful in the laboratory setting. This outcome is for the advanced level class and builds off of information and techniques students learn in our basic level courses. The wide demographic of age range and life experience is an unspoken aspect of this data. Adult learners in the class who have work experience and employment in the field most certainly have an advantage over traditional students.

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 students met the standard of success for outcome #1 (read and interpret wiring diagrams and vehicle service manuals). For continuous improvement, course curriculum needs to continue being standardized among all sections and faculty teaching this course. Continuing to promote advanced level student co-op participation will further continuous improvement because students in the class who have work experience and employment in the field most certainly have an advantage over traditional students.

Outcome 2: Diagnose and repair 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)
	2015	

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

# of students enrolled	# of students assessed
18	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.

14 out of 18 students were assessed because one withdrew and three failed to complete 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.

I assessed students from the only section, Winter 2015.

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

Common assessment for all sections using common departmental exam.

Evaluation Scale[5]Superior[4]Excellent[3]Average[2]Below Avg[1]Incomplete N/A Not Available for viewing/evaluation. Scores of 5, 4 or 3 are considered "proficient."

NATEF checklist was not used due to being unable to collect specific section data. Recommend removing common assessment exam and reworking collection of NATEF checklist data to work for assessment.

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

Outcome #2. Diagnose and repair electrical circuits.

Evaluation Scale[5]Superior[4]Excellent[3]Average[2]Below Avg[1]Incomplete N/A Not Available for viewing/evaluation.

Scores of 5, 4 or 3 are considered "proficient."

Based off common departmental Blackboard exam used in all sections

Results from common departmental exam:

[5]Superior = 9 Students

[4]Excellent = 5 Students

[3]Average[= 0 Students

[2]Below Avg = 0 Students

[1]Incomplete N/A Not Available for viewing/evaluation = 4 Students

The standard of success was met for this outcome because over 70% of students scored an average of 70% or higher.

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

Students must understand how to diagnose and repair electrical circuits efficiently to be successful in the laboratory setting. This outcome is for the advanced level class and builds off of information and techniques students learn in our basic level courses. The wide demographic of age range and life experience is an unspoken aspect of this data. Adult learners in the class who have work experience and

employment in the field most certainly have an advantage over traditional students.

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 students met the standard of success for outcome #2 (diagnose and repair electrical circuits). For continuous improvement, course curriculum needs to continue being standardized among all sections and faculty teaching this course. Continuing to promote advanced level student co-op participation will further continuous improvement because students in the class who have work experience and employment in the field most certainly have an advantage over traditional students.

Outcome 3: Diagnose and evaluate electrical components, motors, actuators and audio and instrumentation 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)
	2015	

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

# of students enrolled	# of students assessed
18	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.

14 out of 18 students were assessed because one withdrew and three failed to complete 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.

I assessed students from the only section, Winter 2015.

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

Common Assessment for all sections using common departmental exam. Evaluation Scale[5]Superior[4]Excellent[3]Average[2]Below Avg[1]Incomplete N/ANot Available for viewing/evaluation. Scores of 5, 4 or 3 are considered "proficient." NATEF checklist was not used due to being unable to collect specific section data. Recommend removing this as an assessment tool for this outcome.

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
Outcome #3. Diagnose and evaluate electrical components, motors, actuators and audio and instrumentation circuits. Evaluation Scale[5]Superior[4]Excellent[3]Average[2]Below Avg[1]Incomplete N/A Not Available for viewing/evaluation. Scores of 5, 4 or 3 are considered "proficient." Based off common departmental Blackboard exam used in all sections Results from common departmental exam:

[5]Superior = 9 Students

[4]Excellent = 5 Students

[3]Average[= 0 Students

[2]Below Avg = 0 Students

[1]Incomplete N/A Not Available for viewing/evaluation = 4 Students

The standard of success was met for this outcome because over 70% of students scored an average of 70% or higher.

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

Students must understand how to diagnose and evaluate electrical components to be successful in the laboratory setting. This outcome is for the advanced level class and builds off of information and techniques students learn in our basic level courses. The wide demographic of age range and life experience is an unspoken aspect of this data. Adult learners in the class who have work experience and employment in the field most certainly have an advantage over traditional students.

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 performance met the standard of success for outcome #1 (read and interpret wiring diagrams and vehicle service manuals). For continuous improvement, course curriculum needs to continue being standardized among all sections and faculty teaching this course. Continuing to promote advance level student co-op participation will further continuous improvement because students in the class who have work experience and employment in the field most certainly have an advantage compared to traditional students.

Outcome 4: Demonstrate the proper use of tools and processes of electrical system diagnosis.

- Assessment Plan
    - Assessment Tool: Common departmental; NATEF checklist exam

- 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)
	2015	

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

# of students enrolled	# of students assessed
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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.

14 out of 18 students were assessed because one withdrew and three failed to complete 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.

I assessed students from the only section, Winter 2015.

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

Common Assessment for all sections using common departmental exam. Evaluation Scale[5]Superior[4]Excellent[3]Average[2]Below Avg[1]Incomplete N/ANot Available for viewing/evaluation. Scores of 5, 4 or 3 are considered "proficient."

NATEF checklist was not used due to being unable to collect specific section data. Recommend removing common assessment exam and reworking collection of NATEF checklist data to work for assessment.

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

Outcome #4: Demonstrate the proper use of tools and processes of electrical system diagnosis.

Evaluation Scale[5]Superior[4]Excellent[3]Average[2]Below Avg[1]Incomplete N/A Not Available for viewing/evaluation.

Scores of 5, 4 or 3 are considered "proficient."

Based off common departmental Blackboard exam used in all sections

Results from common departmental exam:

[5]Superior = 9 Students

[4]Excellent = 5 Students

[3]Average[= 0 Students

[2]Below Avg = 0 Students

[1]Incomplete N/A Not Available for viewing/evaluation = 4 Students

The standard of success was met for this outcome because over 70% of students scored an average of 70% or higher.

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

Students must demonstrate the proper use of tools and processes of electrical system diagnosis to be successful in the laboratory setting. This outcome is for the advanced level class and builds off of information and techniques students learn in our basic level courses. The wide demographic of age range and life experience is

an unspoken aspect of this data. Adult learners in the class who have work experience and employment in the field most certainly have an advantage compared to traditional students.

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 students met the standard of success for outcome #4 (demonstrate the proper use of tools and processes of electrical system diagnosis). For continuous improvement, course curriculum needs to continue being standardized among all sections and faculty teaching this course. Continuing to promote advance level student co-op participation will further continuous improvement because students in the class who have work experience and employment in the field most certainly have an advantage compared to traditional students.

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?

Overall this class is doing a excellent job of meeting the needs of our students. The data shows that students who attend the class in its entirety have a high success rate. The assessment process showed that I need to do some work on the master syllabus, specifically on how the outcomes are assessed.

Currently, the laboratory-based skills in outcomes 1 and 4 are being assessed by a common departmental exam, and this method of assessment should be changed to a NATEF Skills checklist. Outcomes 2 and 3 are currently being assessed by both a common departmental exam and a NATEF Skills checklist; going forward, a common departmental exam should prove to be appropriate and sufficient.

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

During our next scheduled department meeting, I will present my action plan based on this assessment. I will point out areas of success and weakness, and give my recommendations for improvement.

3. Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date

Assessment Tool	The assessment process showed that I need to do some work on the master syllabus, specifically on how the outcomes are assessed. Currently, the laboratory-based skills in outcomes 1 and 4 are being assessed by a common departmental exam, and this method of assessment should be changed to a NATEF Skills checklist. Outcomes 2 and 3 are currently being assessed by both a common departmental exam and a NATEF Skills checklist; going forward, a common departmental exam should prove to be appropriate and sufficient.	The changes mentioned above will assess lab-based skills and knowledge-based skills properly.	2017

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

Data is included in analysis by outcome. Data is no longer available to attach as a file. Future assessment of this course will have availability for attached data sheet after improvements are made to the master syllabus.

III. Attached Files

ASV 256 Data

Faculty/Preparer:	Justin Morningstar	**Date:**	05/19/2017
Department Chair:	Allen Day	**Date:**	06/06/2017
Dean:	Brandon Tucker	**Date:**	06/21/2017

Assessment Committee Chair: Michelle Garey **Date:** 12/20/2017