Weber State University
Annual Assessment of Evidence of Learning

Cover Page

Department/Program: Automotive Technology
Academic Year of Report: 2016/17 (Summer 2016, Fall 2016, Spring 2017)
Date Submitted: 22 Dec 17
Report author: Scott Hadzik

Contact Information:
Phone: 801-626-7138
Email: scotthadzik@weber.edu

Report due 11/15/2017

A. **Brief Introductory Statement:**
Please review the Introductory Statement and contact information for your department or academic program displayed on the assessment site: **http://www.weber.edu/portfolio/departments.html** - if this information is current, please place an 'X' below. No further information is needed. We will indicate "Last Reviewed: [current date]" on the page.

_X__ Information is current; no changes required.
___ Information is not current; updates below.

Update:

B. Mission Statement
Please review the Mission Statement for your department or academic program displayed on the assessment site: **http://www.weber.edu/portfolio/departments.html** - if it is current, please indicate as much; we will mark the web page as "Last Reviewed [current date]". No further information is needed.
If the information is not current, please provide an update:

_X__ Information is current; no changes required.
___ Information is not current; updates below.

Update:

C. Student Learning Outcomes

Please review the Student Learning Outcomes for your academic program displayed on the assessment site: **http://www.weber.edu/portfolio/departments.html** - if they are current, please indicate as much; we will mark the web page as "Last Reviewed [current date]". No further information is needed.
If they are not current, please provide an update:

_X__ Information is current; no changes required.
___ Information is not current; updates below.

Updated Measurable Learning Outcomes

At the end of their study at WSU, students in this program will:
1) …
2) …
3) …
4) …
5) …
6) etc.

COMMENTS:

1. Students will be able to present and explain information summarizing advanced vehicle systems.

We have been focusing on improving the assessment of this learning outcome for our BS degree. We are currently preparing curriculum changes to establish a method for assessment. The current curriculum includes a two credit capstone course. We will create a set of capstone courses that span two semesters. The first semester, students will propose a project and present the proposal to a team of faculty members. The second semester will be used to develop the project, perform the research, analyze the data, and prepare a presentation of the material to a group of faculty. The length and depth of the course will better measure the culmination of learning throughout the program.

D. **Curriculum**

Please review the Curriculum Grid for your department or academic program displayed on the assessment site: **http://www.weber.edu/portfolio/departments.html** - if it is current, please indicate as much; we will mark the web page as "Last Reviewed: [current data]". No further information is needed.
If the curriculum grid is not current, please provide an update:

___ Information is current; no changes required.
_X__ Information is not current; updates below

Curriculum Map FormatCurriculum Map

Curriculum Map – NOTE: Courses highlighted in yellow will be evaluated for the 17/18 academic year

	Department/Program Learning Outcomes							
Core Courses in Department/Program	Proper Safety	Service Information	Theory of Operation	Tool Handling	Diagnosis	Repair Procedure	Repair Verification	Presentation
AUSV 1000 Introduction to Automotive Service	I	I	I	I	I	I	I	
AUSV 1010 Automotive Orientation	I	I						I
AUSV 1021 Automotive Braking Systems 1	I,E	I,E	I,E	I,E	I,E	I,E	I,E	
AUSV 1022 Steering and Suspension Systems 1	I,E	I,E	I,E	I,E	I,E	I,E	I,E	
AUSV 1023 Automotive Braking Systems 2	U,A	U,A	U,A	U,A	U,A	U,A	U,A	
AUSV 1025 Steering and Suspension Systems 2	U,A	U,A	U,A	U,A	U,A	U,A	U,A	
AUSV 1120 Automotive Engines 1	I,E	I,E	I,E	I,E	I,E	I,E	I,E	
AUSV 1124 Automotive Engines 2	U,A	U,A	U,A	U,A	U,A	U,A	U,A	
AUSV 1220 Manual Drivetrain Systems	I,E,U,A	I,E,U,A	I,E,U,A	I,E,U,A	I,E,U,A	I,E,U,A	I,E,U,A	
AUSV 1300 Technical Mathematics	I		I,A		I,E			
AUSV 1320 Automotive Electrical 1	I	I	I	I	I	I	I	
AUSV 1323 Automotive Electrical 2	E	E	E	E	E	E	E	
AUSV 1325 Automotive Electrical 3	U	U	U	U	U	U	U	

AUSV 2120 Automotive Electrical/Body Control Systems	A	A	A	A	A	A	A	
AUSV 2020 Automotive Engine Control	I,E,U,A	I,E,U,A	I,E,U,A	I,E,U,A	I,E,U,A	I,E,U,A	I,E,U,A	
AUSV 2320 Automotive Climate Control Systems	I,E,U,A	I,E,U,A	I,E,U,A	I,E,U,A	I,E,U,A	I,E,U,A	I,E,U,A	
AUSV 2520 Automatic Transmissions	I,E,U,A	I,E,U,A	I,E,U,A	I,E,U,A	I,E,U,A	I,E,U,A	I,E,U,A	
AUSV 2860 Shop Practice	U,A	U,A	U,A	U,A	U,A	U,A	U,A	
ATTC 3000 Introduction to Automotive Technology	I,E							I
ATTC 3020 Introduction to Safety Management and Hazardous Materials	I,E							E
ATTC 3260 Advanced Electrical System	U,A	U,A	U,A	U,A	U,A	U,A	U,A	E
ATTC 3520 Fleet Management	A	A						E
ATTC 3760 Advanced Automotive Technologies	U,A	U,A	U,A	U,A			U,A	E,U
ATTC 3880 Cooperative Practicum	U,A	U,A	U,A	U,A	U,A	U,A	U,A	E,U
ATTC 4530 Hybrid and Electric Vehicle Systems	U,A	U,A	U,A	U,A	U,A	U,A	U,A	E,U
ATTC 4540 Automated Safety Systems	U,A	U,A	U,A	U,A	U,A	U,A	U,A	E,U
ATTC 4560 Advanced Propulsion Systems	U,A	U,A	U,A	U,A	U,A	U,A	U,A	U,A
ATTC 4720 Capstone Project	A	A	A	A	U,A	U,A	U,A	U,A
ATTC 4760 Alternate Fuel Systems	U,A	U,A	U,A	U,A	U,A	U,A	U,A	U,A
ATTC 4860 Automotive Standards, Laws, and Regulations	U,A	U,A	U,A	U,A			U,A	U,A

Note[a]: Define words, letters or symbols used and their interpretation; I = Introduced, E = Emphasized, U = Utilized, A = Assessed comprehensively; these are examples, departmental choice of letters/numbers may differ
Note[b]*:* Rows and columns may be transposed as required to meet the needs of each individual department

Further Comments:

The courses that have all four symbols refer to the specific topic and its relationship with the learning outcome. For example AUSV 1220 Manual Drivetrain Systems has all four symbols. Students are introduced to the proper safety precautions associated with a manual transmission. They are then shown the safety procedures while the instructor demonstrates service of a manual transmission. Students will then tear-down a manual transmission and must utilize the safety training for manual transmissions. Finally students will be assessed in their use of safety procedures while assembly a manual transmission for their final project in the course. Each of the learning outcomes for these courses are similar. The students will go through each of the learning outcomes for the specific topic covered by the course.

E. Assessment Plan

Please review the Assessment Plan for your department displayed on the assessment site: http://www.weber.edu/portfolio/departments.html - if the plan is current, please indicate as much; we will mark the web page as "Last Reviewed [current date]". No further information is needed.

The site should contain an up-to-date assessment plan with planning going out a *minimum of three years* beyond the current year. Please review the plan displayed for your department at the above site. The plan should include a list of courses from which data will be gathered and the schedule, as well as an overview of the assessment strategy the department is using (for example, portfolios, or a combination of Chi assessment data and student survey information, or industry certification exams, etc.).

Please be sure to include your planned assessment of any general education courses taught within your department. This information will be used to update the General Education Improvement and Assessment Committee's planning documentation.

Assessment plan:

<table>
<tr><th colspan="3">2015 to 2016 Academic Year</th></tr>
<tr><th>Course</th><th colspan="2">Results</th></tr>
<tr><td rowspan="4">ATTC 3760 Advanced Automotive Technologies</td><td>Learning Outcomes</td><td>Course Description</td></tr>
<tr><td>Reviewed and determined to be appropriate for the course. Helps prepare students to meet the BS degree learning outcomes.</td><td>Reviewed and determined to be appropriate for the course</td></tr>
<tr><td>Content</td><td>Actions Taken</td></tr>
<tr><td>Reviewed and determined to be appropriate for the course</td><td>No concerns for this course</td></tr>
<tr><td colspan="3"></td></tr>
</table>

AUSV 1320 Automotive Electronics 1 AND AUSV 1323 Automotive Electronics 2	**Learning Outcomes**	**Course Description**
	Outcomes meet accreditation requirements. Advisory Committee felt that the subject needed more depth and that students needed more lab time in order to be better diagnose electrical faults	The course descriptions adequately identify the skills needed for electrical diagnosis
	Content	**Actions Taken**
	Similar to learning outcomes. Advisory committee wanted to see more hands on time dedicated to diagnosis	We created AUSV 1325 Automotive Electronics 3. This is a three credit course that focuses on the practical application of diagnostic theory that is taught in the first and second course. The advisory committee approved the change

2016 to 2017 Academic Year		
Course	**Results**	
ATTC 3620 Automotive Business Practices	**Learning Outcomes**	**Course Description**
	Reviewed and determined to be appropriate for the course. Helps prepare students to meet the BS degree learning outcomes.	Reviewed and determined to be appropriate for the course
	Content	**Actions Taken**
	Reviewed and determined to be appropriate for the course	No concerns for this course

AUSV 1120 Automotive Engines 1 AND AUSV 1124 Automotive Engines 2	**Learning Outcomes**	**Course Description**
	Outcomes meet accreditation requirements. Advisory Committee felt that the full disassembly and rebuild procedure was not necessary.	The course descriptions adequately identify the skills needed for engine mechanical
	Content	**Actions Taken**
	Similar to learning outcomes. Advisory committee wanted more emphasis on removal and replacement of engine assembly instead of teardown and rebuild	We removed most of the teardown and rebuild content from the course. Students will now spend time removing and reinstalling the engine assembly

The following courses will be assessed during the 2017/2018 academic year

- ATTC 3020 Introduction to Safety Management and Hazardous Materials
- AUSV 1220 Automotive Manual Drivetrain Systems

The following courses will be assessed during the 2017/2018 academic year

- ATTC 3260 Advanced Electrical Systems
- AUSV 2120 - Automotive Electrical and Body Control Systems

F. Report of assessment results for the most previous academic year:

There are a variety of ways in which departments can choose to show evidence of learning. This is one example. The critical pieces to include are 1) what learning outcome is being assessed, 2) what method of measurement was used, 3) what the threshold for 'acceptable performance' is for that measurement, 4) what the actual results of the assessment were, 5) how those findings are interpreted, and 6) what is the course of action to be taken based upon the interpretation.

A. Evidence of Learning: Courses within the Major
(**this is a sample page for purpose of illustration only**; a blank template can be found on the next page)

*Can be a mix of direct and indirect measures, but at least one measure must be direct
Evidence of Learning Worksheet: **Courses within the Major**
Course:
*Direct and indirect: at least one measure per objective must be a direct measure.

Additional narrative (optional – use as much space as needed):

We need one more year of testing from our AAS students before we will have meaningful data to analyze. We had scheduling challenges with our third-party testing provider.

b. Evidence of Learning: High Impact Practices (HIPs)

List the activities you have within your academic program that you consider to be high impact. For key elements of high impact practices, see: Key Elements of High-Impact Practices.

If you cannot identify any HIPs occurring within your academic program, please indicate that. Are you planning to incorporate HIPs in the near future?

[List and/or narrative]

G. **Summary of Artifact Collection Procedure**

Artifact	When/How Collected?	Where Stored?
Pre Assessment for AAS	Administered at the beginning of of program for each subject. There are 10 other assessment based on subject	An electronic copy.
Post Assessment for AAS	Administered at the end of each subject. EX. The Brakes Student ASE Examination is administered at the end of Brakes 1. There are 10 other assessment tests on subject	An electronic copy.

Summary Information (as needed)

We are currently establishing an assessment for our BS program.

Appendix A

Most departments or programs receive a number of recommendations from their Five-Year Program Review processes. This page provides a means of updating progress towards the recommendations the department/program is acting upon.

Date of Program Review: AY 16-17	Recommendation	Progress Description
Establish a more relativelearning outcome for our BS degree	Set up a learning outcome assessment for our BS students	AY - 17/18 Curriculum Changes to increase the credit hours associated with the Capstone Course
		AY - 18/19 Establish criteria and expectations for projects that appropriately measure learning outcome
		AY - 19/20 Establish standards for evaluation of projects including committee members and assign roles
		AY 20/21 Evaluate the assessment tool and modify as needed

Additional narrative:

Appendix B

Please provide the following information about the full-time and adjunct faculty contracted by your department during the last academic year (summer through spring). Gathering this information each year will help with the headcount reporting that must be done for the final Five Year Program Review document that is shared with the State Board of Regents.

Faculty 2016-17	
Headcount	
With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)	
Full-time Tenured	
Full-time Non-Tenured (includes tenure-track)	
Part-time and adjunct	
With Master's Degrees	
Full-time Tenured	2
Full-time Non-Tenured	1
Part-time and adjunct	2
With Bachelor's Degrees	
Full-time Tenured	
Full-time Non-tenured	2
Part-time and adjunct	1
Other	
Full-time Tenured	
Full-time Non-tenured	
Part-time	
Total Headcount Faculty	
Full-time Tenured	2
Full-time Non-tenured	2
Part-time	3

Please respond to the following questions.

1) Based on your program's assessment findings, what subsequent action will your program take?

   We will be developing the learning outcome measurement for our BS degree. The first stage will be the curriculum changes. The second stage will be to establish the standards and expectations for the student projects. The third stage will be the organization of the committees that evaluate projects and establishing standards for evaluation. The final stage will be developing a rubric that appropriately measures the learning outcomes for the program.

2) We are interested in better understanding how departments/programs assess their graduating seniors or graduate students. Please provide a short narrative describing the practices/curriculum in place for your department/program. Please include both direct and indirect measures employed. Finally, what were your findings from this past year's graduates?

   We are working at establishing a better means to measures students who are graduating from our program. Our AAS students have been completing a pre and post assessment to measure the learning outcomes associated with the AAS degree. We have had several challenges administering the post test for our students due to scheduling issues with our third party provider. We have most of those issues worked out and will resume post testing this Spring.