

Weber State University
Annual Assessment of Evidence of Learning

Cover Page

Department/Program: Automotive Technology
Academic Year of Report: 2014/15
Date Submitted:
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A. Brief Introductory Statement:

Please review the Introductory Statement and contact information for your department 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.

Information is current; no changes required.

Information is not current; updates below.

Update:

Weber State University (WSU) is one of the few select schools in the country whose automotive students are actively recruited by most of the major automobile manufacturers in the world.

Our relationship with Chrysler, Ford, General Motors, Honda and Toyota help our students to be better prepared for a variety of careers in the automotive industry.

WSU graduates are well known in the automotive industry holding service, technical support, advanced technical, marketing, management, sales, and teaching positions all across the country.

[Automotive Technology Department Website](#)

Contact Information

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B. Mission Statement

Please review the Mission Statement for your department 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:

Information is current; no changes required.

Information is not current; updates below.

The mission of the Automotive Technology Department is to prepare graduates to be competent in the technical theory and application of the automobile. Associate degree graduates will be prepared for careers in the automotive repair industry as an automotive technician. Bachelor degree graduates will be prepared for careers in the automotive industry as field service engineers, product engineers or many other corporate level positions at the various automotive manufacturers and suppliers. Automotive Service Technology graduates will possess industry recognized certifications, the ability to communicate and solve problems efficiently and will have developed a lifelong skill as an effective vehicle diagnostician.

C. Student Learning Outcomes

Please review the Student Learning Outcomes for your department 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:

Information is current; no changes required.

Information is not current; updates below.

Measurable Learning Outcomes

Student Learning Outcomes

Updated November, 2015

Current for the 2015/16 Academic Year

1. Students will demonstrate the proper use of safety equipment when performing any type of vehicle repair.
2. Students will locate and utilize vehicle electronic service information for all repair procedures.
3. Students will explain the theory of operation of vehicle systems and components.
4. Students will demonstrate the proper use of special service tools and hand tools when performing any type of vehicle repair.
5. Students will apply a proper diagnostic approach when analyzing a vehicle system fault.
6. Students will apply a proper repair procedures when repairing a vehicle fault.
7. Students will demonstrate a proper repair verification procedure when a vehicle has been prepared.
8. Students will be able to present and explain information summarizing advanced vehicle systems

D. Curriculum

Please review the Curriculum Grid for your department 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.

Information is not current; updates below

Curriculum Map

Core Courses in Department/Program	Department/Program Learning Outcomes							
	Learning Outcome 1	Learning Outcome 2	Learning Outcome 3	Learning Outcome 4	Learning Outcome 5	Learning Outcome 6	Learning Outcome 7	Learning Outcome 8
AUSV 1000 Introduction to Automotive Services	X	X	X	X	X	X	X	
AUSV 13xx Automotive Electrical Part 1	X	X	X	X	X	X	X	
AUSV 13xx Automotive Electrical Part 2	X	X	X	X	X	X	X	
AUSV 11x0 Engine Repair Part 1	X	X	X	X	X	X	X	
AUSV 11x0 Engine Repair Part 2	X	X	X	X	X	X	X	
AUSV 10x1 Brakes Part 1	X	X	X	X	X	X	X	
AUSV 10x1 Brakes Part 2	X	X	X	X	X	X	X	
AUSV 10x2 Suspension and Steering Part 1	X	X	X	X	X	X	X	
AUSV 10xx Suspension and Steering Part 2	X	X	X	X	X	X	X	
AUSV 23x0 Heating and Air Conditioning	X	X	X	X	X	X	X	
AUSV 20x0 Engine Performance	X	X	X	X	X	X	X	
AUSV 12x0 Manual Drive Train and Axles	X	X	X	X	X	X	X	
AUSV 25x0 Automatic Transmissions and Transaxle	X	X	X	X	X	X	X	
AUSV Cooperative Practicum	X	X	X	X	X	X	X	

Core Courses in Department/Program	Department/Program Learning Outcomes							
	Learning Outcome 1	Learning Outcome 2	Learning Outcome 3	Learning Outcome 4	Learning Outcome 5	Learning Outcome 6	Learning Outcome 7	Learning Outcome 8
ATTC 3000 Introduction to Automotive Technology								X
ATTC 3020 Introduction to Safety Management and Hazardous Materials	X	X						X
ATTC 3260 Advanced Electrical Systems	X	X	X	X	X	X	X	X
ATTC 3520 Fleet Management	X							X
ATTC 3620 Automotive Business Practices	X							X
ATTC 3760 Advanced Automotive Technologies	X	X	X	X	X	X	X	X
ATTC 3880 Cooperative Practicum	X	X						X
ATTC 4560 Advanced Propulsion Systems	X	X	X	X	X	X	X	X
ATTC 4720 Capstone Project	X	X	X	X	X	X	X	X
ATTC 4760 Alternate Fuel Systems	X	X	X	X	X	X	X	X
ATTC 4860 Automotive Standards, Laws, and Regulations		X		X			X	X
								X

Note^a: Define words, letters or symbols used and their interpretation; i.e. 1= introduced, 2 = emphasized, 3 = mastered or I = Introduced, E = Emphasized, U = Utilized, A = Assessed Comprehensively; these are examples, departmental choice of letters/numbers may differ

Note^b: Rows and columns should be transposed as required to meet the needs of each individual department

Additional Information (if needed)

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 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:

We will be using the following assessment strategy:

- Review of course materials and content by
 - the industry advisory committee
 - department curriculum committee
- Compare pre and post test results from 3rd party industry test (Student ASE Exams)
- Review of student surveys

The following courses will be assessed during the 2015/2016 academic year

- ATTC 3760 Advanced Automotive Technologies
- AUSV 1320 Introduction to Electronics 1
- AUSV 1320 Introduction to Electronics 2

The following courses will be assessed during the 2016/2017 academic year

- ATTC 3620 Automotive Business Practices
- AUSV 1120 Automotive Engines 1
- AUSV 1124 Automotive Engines 2

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

- ATTC 3020 Introduction to Safety Management and Hazardous Materials

- AUSV 1021 Automotive Braking Systems 1
- AUSV 1022 Automotive Braking Systems 2

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)

Sample only - Evidence of Learning: Courses within the Major – Sample only					
Measurable Learning Outcome: Students will...	Method of Measurement*	Threshold for Evidence of Student Learning	Findings Linked to Learning Outcomes	Interpretation of Findings	Action Plan/Use of Results
Learning Outcome 1:	Measure 1: A set of 10 multiple choice questions from Exam 1 Measure 2: Student presentations	Measure 1: 85% of students will score 80% or better on 10 questions Measure 2: Using a rubric to assess the presentation, 90% of students will achieve a score of 75% or above.	Measure 1: 93% of students scored 80% or better on 10 questions Measure 2: the threshold was met, but students performed poorly (avg. = 1.8) on one criterion.	Measure 1: Students successfully demonstrated interpretation skills Measure 2: unclear where the issue is	Measure 1: No curricular or pedagogical changes needed at this time Measure 2: provide better explanation of the expectations for this criterion and re-assess.
Learning Outcome 2:	Measure 1: Results of standardized test Measure 2: Students are surveyed about their perceived competence of the outcome	Measure 1: 85% of students will score at or above the national average. Measure 2: On a 5 point Likert scale, 90% of students will indicate 4 or 5	Measure 1: 90% of students scored above national average Measure 2: Less than half of students felt competence with this outcome.	Measure 1: Students successfully demonstrated competence; lowest average score was in transfer of knowledge, where only 69% of questions were answered correctly. Measure 2: Students tested well, but their perceived competence was lower than expected.	Measure 1: Faculty agree to include review of transfer in all related courses; this outcome will be reassessed during next review Measure 2: Students will be given more opportunity to practice this skill with immediate feedback.

*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:

Course [Subject/Number]	Evidence of Learning: Courses within the Major				
Measurable Learning Outcome	Method of Measurement*	Threshold for Evidence of Student Learning	Findings Linked to Learning Outcomes	Interpretation of Findings	Action Plan/Use of Results
Learning Outcome 1:	Measure 1:	Measure 1:	Measure 1:	Measure 1:	
	Measure 2:	Measure 2:	Measure 2:	Measure 2:	
Learning Outcome 2:	Measure 1:	Measure 1:	Measure 1:	Measure 1:	
	Measure 2:	Measure 2:	Measure 2:	Measure 2:	

*Direct and indirect: at least one measure per objective must be a direct measure.

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

We have had some significant changes in personnel and curriculum in the last year. We have not had a good review process in place for assessing our courses. Fall 2015 semester we established a review committee in the department that will make sure that the scheduled courses are assessed each year. The committee will look at the scheduled courses and establish a means to measure the learning outcomes assigned to the course. We have also included a course assessment in our advisory committees starting this year. The industry members will look at our course content and evaluate the courses effectiveness and relevance. We will ensure that all courses scheduled for review this year are appropriately assessed

b. Evidence of Learning: High Impact or Service Learning

If you provide students with high impact or service learning opportunities briefly describe those opportunities and explain how you assess their impact on student learning. This [excerpt](#) from George D. Kuh provides a brief overview of high-impact practices.

c. Evidence of Learning: General Education Courses
 (duplicate this page as needed or delete if department does not offer GE courses)

Evidence of Learning: General Education Area [fill in]					
Measurable Learning Outcome	Method of Measurement	Threshold for Evidence of Student Learning	Findings Linked to Learning Outcomes	Interpretation of Findings	Action Plan/Use of Results
Students will...					
Learning Outcome 1:	Measure 1	Measure 1	Measure 1:	Measure 1:	Measure 1:
	Measure 2:	Measure 2:	Measure 2:	Measure 2:	Measure 2:
Learning Outcome 2:	Measure 1:	Measure 1:	Measure 1:	Measure 1:	Measure 1:
	Measure 2:	Measure 2:	Measure 2:	Measure 2:	Measure 2:
Learning Outcome 3:	Measure 1:	Measure 1:	Measure 1:	Measure 1:	Measure 1:
	Measure 2:	Measure 2:	Measure 2:	Measure 2:	Measure 2:

*At least one measure per objective must be a direct measure; indirect measures may be used to supplement direct measure(s).

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

G. Summary of Artifact Collection Procedure

Artifact	When/How Collected?	Where Stored?
(i.e. Final Project Rubric)	(i.e. end of semester)	(i.e. electronic copies)
(i.e. Chi Tester Outcome Report)	(i.e. 2-3 times per semester)	(i.e. electronic format, chi tester warehouse)

Summary Information (as needed)

We currently do not have a specific way we collect artifacts. The majority of our courses are taught on canvas. Several faculty members have created rubrics in order to measure learning outcomes. Some of our faculty have expressed interest in using Chi Tester outcomes in their courses. Our newly formed Department Curriculum Committee will be evaluating the best option for collecting and evaluating courses in the future. The committee will set up a universal standard of artifact collection and evaluation.

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: ####	Recommendation	Progress Description
Recommendation 1	Text of recommendation	#### +1 progress
		#### +2 progress
		#### +3 progress
		#### +4 progress
Recommendation 2	Text of recommendation	#### +1 progress
		#### +2 progress
		#### +3 progress
		#### +4 progress
Recommendation 3	Text of recommendation	#### +1 progress
		#### +2 progress
		#### +3 progress
		#### +4 progress
(add as needed)		

Additional narrative:

We recently completed our 5 year National Automotive Technicians Education Foundation (NATEF) accreditation. We met all the accreditation standards set by them. An external committee of industry members, automotive educators, and NATEF representatives looked at our facilities, equipment, and curriculum. NATEF also contacted employers that have hired our graduates. The committee gave us high ratings in all categories.

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	
Headcount	
With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)	
Full-time Tenured	1
Full-time Non-Tenured (includes tenure-track)	3
Part-time	1
With Master's Degrees	
Full-time Tenured	1
Full-time Non-Tenured	2
Part-time	0
With Bachelor's Degrees	
Full-time Tenured	0
Full-time Non-tenured	1
Part-time	0
Other	
Full-time Tenured	0
Full-time Non-tenured	0
Part-time	1
Total Headcount Faculty	
Full-time Tenured	1
Full-time Non-tenured	3
Part-time	1

Please respond to the following questions.

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

This is our first year implementing a 3rd party testing metric for all of our students. The first group of students took an entrance exam. The exam consisted of nine different tests that were created by an outside industry recognized organization (ASE). The tests cover all of the different automotive systems that we teach. Each test consists of approximately 40 questions. We have access to the test results. The test results are broken down to specific areas within each topic. The entrance exam results provide us with a starting place to see which areas students are already familiar with, and which automotive areas students need additional help with. The students will take a similar exam upon completion of the program. Their exam results will be analyzed and compared. Our outgoing students in the spring will take the exit exam. They did not take an entrance exam, but their results will still be valuable.

- 2) Are there assessment strategies within your department or program that you feel are particularly effective and/or innovative? If so, what are those strategies and what do you learn about your students by using them?

We feel that the entrance exam mentioned above will be the most effective way to learn the effectiveness of our courses. We would like to see which courses and methods of instruction provide the best learning outcomes for students. We would also consider which methods of instruction are the least effective in helping students meet the learning outcomes for our degrees.