

Pueblo Academic Program Assessment Report for AY 2016-17

Due: June 1, 2017

Program: Automotive Industry Management (AIM)

Date: May 30, 2017

Completed by: Cathi J. Robbe, Program Coordinator- Associate Professor

Assessment contributors: William Bencini—Assistant Professor, Alan Fass – Adjunct Professor

Please describe the 2016-17 assessment activities for the program in Part I. Use Column H to describe improvements planned for 2016-2017 based on the assessment process. In Part II, please describe activities engaged in during 2016-2017 designed to close-the-loop (improve the program) based on assessment activities and the information gathered in 2016-2017. Thank you.

I. Program student learning outcomes (SLOs) assessed in this cycle, processes, results, and recommendations.

A. Which of the program SLOs were assessed during this cycle? Please include the outcome(s) verbatim from the assessment plan.	B. When was this SLO last assessed?	C. What method was used for assessing the SLO? Please include a copy of any rubrics used in the assessment process.	D. Who was assessed? Please fully describe the student group.	E. What is the expected achievement level and how many students should be at it?	F. What were the results of the assessment?	G. What were the department’s conclusions about student performance?	H. What changes/improvements to the <u>program</u> are planned based on this assessment?
SLO #4 Demonstrate critical thinking and problem solving skills in the diagnosis and service of automotive systems.	Spring 2014 Spring 2015 Spring 2016 Spring 2017	Automotive Service Excellence (ASE) Student Certification online testing	AIM upper class students who have successfully completed all lower level AIM courses	AIM is following the standards under the ASE Student Certification program. See ASE 2017 below	The results of the ASE testing for the Spring of 2017 are provided in summary report Please see ASE 2017 below	Over all student ASE Testing performance was above the testing qualification and standards	Review the areas that where marginal or slightly below the standard and provide more lecture or hands on instruction

<p>SLO # 6 Demonstrate employment seeking skills required to obtain an entry level management position in the automotive industry.</p>	<p>Spring 2016</p>	<p>Employer Survey was conducted by the CSU-Pueblo Career Services Department (see attachments for results)</p>	<p>The Employer Survey was given to every company that held information session or interview at CSU-Pueblo during the Fall 2016 and Spring 2017 semesters</p> <p>This is an Employer Survey so specific students cannot be assessed.</p>	<p>Expected response rate of Employer Survey is 100%.</p>	<p>Of the 8 requested to respond only 3 Employer provided feedback. Please see AES 2017</p>	<p>It is difficult to determine the overall student performance based on this survey. While the survey indicated 66.67% YES, they hired a graduate our individual contact with students offered and accepting automotive careers was much higher, estimated around 95%</p>	<p>Increase participation and response rate from Employers Survey. Perhaps give them during their visit rather than email or online survey</p>
<p>A. Which of the program SLOs were assessed during this cycle? Please include the outcome(s) verbatim from the assessment plan.</p>	<p>B. When was this SLO last assessed?</p>	<p>C. What method was used for assessing the SLO? Please include a copy of any rubrics used in the assessment process.</p>	<p>D. Who was assessed? Please fully describe the student group.</p>	<p>E. What is the expected achievement level and how many students should be at it?</p>	<p>F. What were the results of the assessment?</p>	<p>G. What were the department's conclusions about student performance?</p>	<p>H. What changes/improvements to the <u>program</u> are planned based on this assessment?</p>

Student Exit Survey	Spring 2016	AIM Exit Survey	18 students in AIM 425 Automotive Financial Management	Exit survey is used to evaluate the opinions, thoughts and suggestion of AIM students prior to graduation. Therefore achievement level is not applicable	Results of the Exit Survey are attached below. See SES 2017	AIM faculty with continue to work closely with thhe CSU-Pueblo Career Center to enhance student resumes and interview skills	The AIM faculty will review the Exit Survey results prior to the beginning of the Fall 2017 semester to address areas of concerns
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B. Follow-up (closing the loop) on results and activities from previous assessment cycles. In this section, please describe actions taken during this cycle that were based on, or implemented to address, the results of assessment from previous cycles.

A. What SLO(s) did you address? Please include the outcome(s) verbatim from the assessment plan.	B. When was this SLO last assessed?	C. What were the recommendations for change from the previous assessment?	D. Were the recommendations for change acted upon? If not, why?	E. What were the results of the changes? If the changes were not effective, what are the next steps or the new recommendations?
SLO #2 The Business Contact and Case Study Report will be evaluated against a specific rubric to evaluate the effectiveness, comprehension and competence level. The	Spring 2016	Revisit the student materials retained and evaluated for next assessment period 2018	Yes, plan to revisit the AIM Assessment Report, timeline and SLO in the Fall of 2017	Results are pending, however action will be taken.

<p>results will be shared with the AIM faculty and others involved in AIM Assessment during the cycle year. Upon the evaluation of the SLO any changes or updates will be discussed and if necessary revision will be implemented to the AIM Assessment Plan.</p>				
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Comments: 2016 Feedback item 11.1 Student surveys were given by Administrative Assistant Jeanne Stewart and results compiled via work-study so that the identity of student was unknown to the AIM faculty. Administration of the Exit Survey using this method greatly increased participation

**ASE 2017 – ASE Student Certification
Assessment Report
Spring 2017**

Bullet Point Summary

- 88.7% Tests passed @ 65.6% Average Score
- 180 potential tests
- 163 exams completed
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- 17 tests not completed due to absenteeism
 - Engine Repair – 1
 - Engine Performance – 3
 - Manual Trans – 1
 - Auto Trans –
 - MLR – 5
 - AST -5
- 144 Exams passed = 88.7% pass rate; 9% above program goal
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- 19 Exams Failed
 - Brakes – 4
 - Suspension & Steering – 2
 - Engine Repair – 3
 - Engine Performance – 1
 - Manual Trans – 6
 - HVAC – 2
 - Auto Trans - 1
 - MLR – 1

Content Areas of Increased Performance (relative to 3-year average)

- Automatic Transmission
- Manual Transmission
- Steering & Suspension
- Engine Repair
-

Content Areas of Decreased Performance (relative to 3-year average)

- Cohort
- AST
- MLR
- Brakes
- HVAC
- Electrical

Summary

Spring 2017 marked the fourth year of AIM ASE Student Certification Assessment. The ASE Exam initiative involves the traditional 8 automotive technical areas as well as the MLR (Maintenance & Light Repair) and AST (Automotive Service Technology) Exams. The MLR exam is a comprehensive exam that evaluates all eight technical areas on an entry level basis. The AST is a comprehensive exam and evaluates all eight content areas on an advanced basis with approximately 30% overlap with MLR objectives. AST was activated in 2015 and AIM participated in the original cut score study. AST average scores then are based only on the 2016 and 2017 test window.

This basis for this assessment is % Raw Score as the national percentile rank data will not be available until the 2017 test window closes on June 15th 2017.

AIM completed 163 exams with an 89% pass rate which far exceeds the original program goal of 80% established in inaugural 2015 test window. However, the 66% cohort average was 3% down from the 3-year average of 69%. The new 4-year raw score average is now 66%.

Seventeen (17) tests were not completed due to student absenteeism. A suggestion to remedy this situation would be to incorporate exam participation into the AIM 335 course grade. Points toward the course grade could be awarded simply as a participation grade or this taken a step further where the exams raw scores are factored into the course grade.

Cohort Raw Score Performance Relative to 3-year Average

The following table summarizes 2017 scores relative to the 3-year average. Sub-performing content areas are listed first followed by content areas that exceed the 3-year average. Sub-performance deviation is noted by the red figures.

	2017 % Ave Score	3-year % Score Ave	Decrease relative to 3-year average
Cohort	66	69	-3%
AST	71	80	-9%
MLR	69	75	-6%
Brakes	61	66	-5%
HVAC	62	65	-3%
Electrical	68	71	-3%
Eng. Performance	65	66	-1%
Auto Trans	68	62	+6%
Manual Trans	60	55	+5%
Steering & Susp	61	57	+3%
Engine Repair	71	68	+3%

Positive Trends

Historically, the four content areas of Brakes, Suspension & Steering, Manual Transmission and Automatic Transmission, have consistently performed significantly below the average. However, 2017 results indicate, with the exception of Brakes, significant improvement in three of the four areas. Engine Repair, another, though not as extreme of a low performance area, also experienced a +3% raw score increase.

Negative Trends

Brakes, a traditional low performance area, experienced -5% decrease (relative to the 3-year average).

Cohort Raw Score Average decreased -3% compared to the 3-year average but is dead even @ the new 4-year average of 66%

Summary in Table Form

Red indicates sub-average performance

NA – Test not available for that year

	2017 % Ave Score	% Passed	# Exam Failed	# Exam Not Taken	2014 % Ave Score	2015 % Ave Score	2016 % Ave Score	3-year % Score Ave	4-year % Score Ave
Cohort	66	88	19	17	66	57	74	69	66
Manual Trans	60	65	6	1	52	50	72	55	59
Brakes	61	71	4	0	75	56	60	66	66
Steer & Susp	61	89	2	0	60	50	60	57	58
HVAC	62	88	2	1	60	60	7	65	65
Engine Perf	65	93	1	3	60	60	77	66	66
Auto Trans	68	94	1	2	57	57	72	62	64
Electrical	68	100	0	1	68	68	77	71	70
Engine Repair	71	88	2	1	64	59	82	68	69
MLR	69	92	1	5	77	67	80	75	73
AST	71	100	0	5	NA	NA	80	80	75

Individual Exam Results

Empty slots in the table indicates student was absent for the exam

Red Indicates Failed Exams

Name	Roster Key	Brakes 40	Susp/Steer 40	Engine Repair 40	Engine Performance	Manual Trans
#1)	QPD-GBX	13-32%	21-52%	28-70%		16-40%
#2)	BQJ-VK3	28-70%	23-58%	22-55%	28-70%	20-50%
#3)	WE8-D63	19-48%	28-70%	26-65%		23-58%
#4)	VXV-JGS	21-52%	21-52%	20-50%	22-55%	
#5)	CFS-7VQ	19-47%	17-42%	26-65%	27-68%	27-68%
#6)	G4Y-EM8	25-62%	23-58%	34-85%	26-65%	20-50%
#7)	KJ2-329	22-55%	26-65%	37-92%	25-62%	33-82%
#8)	4Y5-7K6	30-75%	35-88%	38-95%	33-82%	31-78%
#9)	UMY-A9	18-45%	17-42%	18-45%	20-50%	19-48%
#10)	QPR-9PS	25-62%	26-65%			17-42%
#11)	YCR-MA4	26-65%	25-62%	26-65%	26-65%	26-65%
#12)	A5F-MSR	28-58%	23-58%	26-65%	27-68%	22-55%
#13)	9F5-2SU	32-80%	30-75%	35-88%	32-80%	31-78%
#14)	MSJ-E57	22-70%	24-60%	29-72%	22-55%	24-60%
#15)	T4X-M9G	28-70%	24-60%	28-70%	28-58%	25-62%
#16)	6H5-YYC	29-72%	25-62%	30-75%	28-70%	27-68%
#17)	G3V-J22	21-52%	25-62%	26-65%	23-58%	18-45%
#18)	WYU-YD	27-68%	26-65%	32-80%	28-70%	30-88%
Average % Correct	63.6%	61%	61%	71%	65%	60%
% Exams passed	82.6%	78%	89%	88%	93%	65%

Individual Exam Results

Empty slots in the table indicates student was absent for the exam

Red Indicates Failed Exams

Name	Roster Key	Electrical 40	AC 40	Auto Trans	MLR	AST
#1)	QPD-GBX		20-50%	21-52%		
#2)	BQJ-VK3	21-52%	26-65%	27-68%	38-63%	54-68%
#3)	WE8-D63	20-50%	28-70%			
#4)	VXV-JGS	22-55%	20-50%		38-63%	
#5)	CFS-7VQ	24-60%	28-70%	22-55%	39-65%	51-64%
#6)	G4Y-EM8	24-60%	18-45%	27-68%	40-67%	53-66%
#7)	KJ2-329	28-70%	34-85%	33-82%	50-83%	64-80%
#8)	4Y5-7K6	35-88%	34-85%	31-78%	50-83%	72-90%
#9)	UMY-HA9	23-58%	21-52%	22-55%	24-40%	47-59%
#10)	QPR-9PS	25-62%		32-80%		
#11)	YCR-MA4	31-78%	24-60%	30-75%	46-77%	58-72%
#12)	A5F-MSR	28-70%	21-52%	23-58%	46-77%	50-62%
#13)	9F5-2SU	32-80%	29-72%	32-80%	41-68%	41-78%
#14)	MSJ-E57	27-68%	19-48%	28-70%		-69%
#15)	T4X-M9G	25-62%	24-60%	22-55%	38-63%	50-62%
#16)	6H5-YYC	28-70%	27-68%	30-75%	42-70%	54-68%
#17)	G3V-J22	24-60%	21-52%	28-70%		
#18)	WYU-3YD	30-75%	29-72%	33-82%	48-80%	65-81%
Average % Correct	67.6%	68%	62%	68%	69%	71%
% Exams passed	94.8%	100%	88%	94%	92%	100%

AES 2017: The CSU-Pueblo Career Center performed the AIM Employer Survey using the Monkey Survey

The survey was sent to 8 employers with 3 of them responding:

Survey Results

Q1 Did you hire any CSU-Pueblo student(s) or graduates this past year?

Yes 66.67% No 33.33%

Q2 Did you interview any CSU-Pueblo students or graduates this year?

Yes 33.33 % No 66.67%

Q3 if you interviewed CSU-Pueblo students or graduates, were they well prepared for the interview in terms of professionalism?

Strongly agree 33.33 % No Opinion 33.33% Disagree 33.33%

Q4 If you interviewed CSU-Pueblo students or graduates, were they well prepared in terms of resumes and other application materials?

Strongly Agree 33.33 % Agree 33.33% No Opinion 33.33%

Q5 How does your experience recruiting at CSU-Pueblo compare to recruiting at other universities?

Great! 66.67% Needs Improvement 33.33%

SES 2017: Graduate Exit Survey

AIM- Automotive Industry Management
College of Education, Engineering and Professional Studies.
Colorado State University - Pueblo

The Automotive Industry Management (AIM) Department is interested in your perception of the quality of the education you received from Colorado State University - Pueblo, specifically in the AIM program. The primary focus of this assessment is on the content and delivery of courses you completed in the AIM Department. Your response to the following items will have a direct impact on the AIM program and course offerings.

The results of the survey will be summarized (**your individual response will NOT be identified**) and will go directly to the AIM program chair and the AIM faculty for purposes of evaluation and possible modification of the program and curriculum. The survey is anonymous and does not require your name.

1. I feel that my education at CSU-Pueblo has successfully prepared me to enter the related professional field of my choice.
A. strongly agree (1) b. agree (7) c. no opinion d. disagree (2) e. strongly disagree

2. I believe that my preparation in AIM compares favorably with that of graduates from similar programs at other institutions of higher learning in Colorado.
A. strongly agree (2) b. agree (3) c. no opinion (4) d. disagree (1) e. strongly disagree

3. I speak positively to others about the CSU-Pueblo AIM Department and my educational experiences.
A. always (2) b. most of the time (2) c. about half the time (2) d. occasionally (3) e. never

4. The academic advisement provided by the current AIM faculty was helpful and effective.
A. always (2) b. most of the time (5) c. about half the time (1) d. occasionally (2) e. never

5. As a whole, the AIM faculty at CSU-Pueblo showed interest in me as a person.
A. always (6) b. most of the time (4) c. about half the time d. occasionally e. never

Course Usability/Quality Ratings:

Rate each course that **you completed** at CSU-Pueblo in two areas: **Application** and **Quality**.

The ratings should be based on the following scale:

1 = Very Low application/quality	3 = Neutral	4 = High application/quality
2 = Low application/quality		5 = Very High application/quality

If you did not take a class that is included on the list below, leave the ratings blank and proceed to the next item.

Course	Title	Application	Quality
AIM 105	Intros to Parts & Service Industry	3.0	3.3
AIM 115	Engine Design and Operation	4.0	3.1
AIM 125-125L	Suspension and Brakes	4.6	2.8
AIM 155	Automotive Parts Operations	3.2	3.5
AIM 165	Power Trains & Drive Lines	4.8	3.8
AIM 235	Fuel Systems & Exhaust	4.4	3.5
AIM 245-245L	Electrical Systems I	4.8	4.8
AIM 255- 255L	Electrical Systems II	4.6	4.6
AIM 265-265L	Auto Parts Mgmt	3.5	3.5
AIM 305	Customers Service & Reg Issues	3.8	4.2
AIM 325	Fuels & Lube Production	4.0	4.1
AIM 335	Shop Practices	4.5	4.0
AIM 345	Advanced Automotive Systems	4.1	4.0
AIM 405	Personal Selling & Techniques	3.2	3.3
AIM 425	Autos Financial Mgmt	3.5	3.7

Please list any topics/courses you feel should be included in the AIM program that are not currently taught:

- **Hybrid,**
- **Diesel mentioned twice and underlined**
- **In depth suspension and brakes class**
- **Proper way of using special tools class**
- **Fabrication/ Machining, performance, Most just need updating**

How confident do you feel about your abilities in your chosen field at this time?

- **8 are confident, one said 7/10**
- **The other said they were confident due to the HSB/minor courses with AIM degree**

What were the most valuable things you received from your education at CSU-Pueblo? (Please include comments on assignments, information sessions and field trips)

- **Support from AIM teachers and 1 on 1 time when I needed help**
- **Life lessons the inner workings of mechanical components engine taught me the most**
- **Technical knowledge hands on skills**
- **Being able to diagnose any vehicle**
- **Shop practices running as a dealership, all automotive info sessions, fuels and exhaust project**
- **How the industry really works by attending field trips, business contacts and SEMA**
- **Field Trips to meet and interview w/ businesses**

Discuss any improvements that you feel should be made to the AIM curriculum/program and provide a statement of its teaching/learning value:

- **Multiple students stated the need for better tools, more shop classes and updated facility**
- **New material and updates**
- **Improve test reviews and class discussions**
- **More professors to reduce stress on instructors**
- **Get funding and update tools**
- **More in depth classes too much to learn in short time**

Please list another concerns with CSU-Pueblo, The College, AIM Program, Faculty or other services:

- **CSU-P should support the AIM program with more faculty, better equipment and an updated facility**
- **Fix/replace lost or broken tools**
- **Main concern with business minor that it feeds us info we don't need**
- **If you want to enforce a uniform buy them like a company would**
- **Everything is perfect**
- **CSU in general is disorganized and lacks communication**
- **The School is run very poorly as a whole**
- **Better advising and supports w/ transfer students, outdated shop tools**

When did/will you graduate (check one): May 2017 December 2017

The following information is required for tracking/reporting purposes as required by the State of Colorado. Remember, you will not be identified or individually associated with this data:

Have you found a full-time job? (5) Yes (5) No

Is your position in an AIM or related field? (5) Yes (3) No

What is your starting salary: _____ per hour / week / month / year?
48k yearly, 45+, \$12 hourly, \$15hourly

Signing bonus (if any): **None or N/A**

THANKS for your feedback!
Your perspective on the AIM curriculum will have an impact on
the quality of the program.