

Colorado State University – Pueblo Academic Program Assessment Report for AY 2014-2015

Due: June 1, 2015

Program: Automotive Industry Management (AIM)

Date: May 22, 2015

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

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Please complete this form for each undergraduate, minor, certificate, and graduate program (e.g., B.A., B.S., and M.S.) in your department. Please copy any addenda (e.g., rubrics) and paste them in this document, and submit it to the dean of your college/school as per the deadline established. The dean will forward it to me as an email attachment before June 1, 2015. You'll also find the form at the assessment website at <http://www.colostate-pueblo.edu/Assessment/ResultsAndReports/Pages/default.aspx>.

Please describe the 2014-2015 assessment activities for the program in Part I. Use Column H to describe improvements planned for 2015-2016 based on the assessment process. In Part II, please describe activities engaged in during 2014-2015 designed to close-the-loop (improve the program) based on assessment activities and the information gathered in 2013-2014. 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? Please indicate the semester and year.	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(s) and the number of students or artifacts involved.	E. What is the expected achievement level and how many or what proportion of 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?
<u>Student Learning Outcome (SLO) #4</u> will be addressed several times in required AIM courses as shown in Table 1. Review of a technical evaluation exam will be evaluated against a specific rubric to evaluate the effectiveness, comprehension and competence level. The results will be shared	Previously tested with an industry validated test in Spring 2014. Tested again in spring 2015. Results still pending.	A Nationally recognized ASE (Automotive Service Excellence) student exam was used to asses this SLO.	Students from AIM 335 were tested. These students are usually seniors at the end of their academic experience. 16 students took the exam in 2014. 15 students in 2015.	80% combined pass rate for all tests	Please see attached report.	Changes need to be made in brakes steering, and suspension to improve the outcome.	The program plans on meeting together to assess the what can be done to improve the scores. Nothing has been decided as of yet. However, two year ago new alignment equipment was purchased to help support the steering and suspension portion of our curriculum. The first student group that has had access to this equipment will test in spring 2016.

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.							
<u>Student Learning Outcome (SLO) #2</u> will be addressed several times in required AIM courses as shown in Table 1. The Business Contact and Case Study Report will be evaluated against a specific rubric to evaluate the effectiveness, comprehension and competence level. The results	Not previously used in AIM Assessment. This is the first planned year for review.	Oral presentation rubric and essays were used for assessment evaluation from several AIM courses.	Fourteen (14) students from AIM 305 Regulatory and Environmental Issues were given case studies to present in a group.	Expected achievement level for oral presentation used a standard rubric for case study presentations.	Results varied: Some students took extra steps in preparing and researching the case study. About 65% of the students went above and beyond. The remaining	While a more acceptable/achievable result of a junior class would be around 80%---the 65% level will need to be evaluated in comparisons to future AIM 305 courses. A better measure perhaps will be following a freshman class	For the case studies—a wider range of topics will be made available to allow smaller groups/teams to present research and results. The review of a standardized rubric will also be used and follow students in their college career.

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.					35 % was very lacks and did not put forth any extra effort.	from AIM 155 thru and including AIM 425 in their college career.	
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Comments:

Student Exit Survey 2015 (Results Pending) Exit survey was emailed to all AIM graduates of 2015—only one response and all was very positive. Since the response rate from students is extremely low and unacceptable the AIM faculty will require graduates to take the Student Exit Survey when filling out the Graduation Planning Sheet.

Changes and improvements to the AIM course teaching is the development of an AIM courses specific for AIM Minors. Other changes involve restructure of information in AIM 155, 265 and 425. This will include moving some material between classes and introducing other industry and personal knowledge information. Changes are in response to student comments and concerns in the AIM Advisory Committee meeting in October 2014.

II. 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? Please indicate the semester and year.	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 # 4	Previously assessed 2014	Yes		
SLO # 2	Not previously assessed	n/a	n/a	Results of the case studies reviewed in AIM 305 reflect a need to have smaller groups with more involvement from every student. This assessment process will be reevaluated as the results are somewhat difficult to compare.
SLO # 5	Not previously assessed	n/a	n/a	See note below.

Comments:

*From 2014 AIM Assessment Review: "Perhaps a capstone for minors?"

AIM 491 Special Topics (aka Automotive Business Operations) is offered for CSU-Pueblo students interested in the AIM minor. This course is a combination of AIM 155, AIM 265, AIM 305 and AIM 425 and was offered in the 2014 and again 2015 fall semester. Results of class are not available as this is the first semester with enrollment.

*SLO #2 utilized information from two years of the AIM 305 Regulatory and Environmental Issues as the course teaching of AIM 265 Automotive Parts Management changes and the availability of Business Contacts was removed to address student contact hours.

*SLO #5 Demonstrate professional writing and oral presentation skills was not assessed for this cycle due to the time commitment required for the Certification Testing of Student or SLO #4. The Aim faculty will meet in earl fall 2015 to evaluate and make necessary changes to the future cycle plan and update Table 1: AIM Curriculum Map.

**AIM Assessment Report
Sp 2015
SLO #4**

Demonstrate critical thinking and problem solving skills in the diagnosis and service of automotive systems.

Content:

ASE Student Certification Exams

2015 Test Scores

2015 National Percentile Rank

Table 1; 2015 Test Scores & National Rank, Decrease in Descending Order

Table 2; 2014-2015 Comparison; Score & National Rank

Table 3; Sp2015 National Percentile Rank

Table 4; Sp2015 Raw Score %

ASE Student Certification Exams

Assessment of AIM SLO #4 was again evaluated using the industry developed and validated standardized ASE Student Certification Exams. The ASE student tests are organized along the same technical areas as are the ASE Technician Certification Exams.

This is the second year AIM has used these standardized tests to assess SLO#4. Most importantly, student exam performance is measured using a national percentile rank statistic which indicates performance relative to a national test group of approximately 100,000 participants.

Ten tests were administered to 15 students enrolled in the capstone course AIM 335; Shop Practices. The tests include the eight technical areas plus the MLR test. Also this year AIM was participated in the AST (Automotive Student Technician) cut score project. This project was the initial offering of the new AST test specifically designed to establish statistical analysis of 120 test items... AST is the 2nd level of the 2012 ASE program accreditation structure.

This report is based on 2014 data and ASE advised against comparing test groups against previous year's data. However, the 2015 data was not available in time for this report. AIM 2015 test results will be analyzed with 2015 data as soon as it becomes available which is usually around June 1st.

Sp2015 AIM ASE Student Certification Tests results indicate very significant decrease from Sp2014 results.

2015 Test Scores

2015 AIM average test score, compared to 2014 average, decreased 9%, from 66% to 57%. Most significantly, six test areas experience double digit decreases of -12 to -25%

Interesting Note; HVAC is the only test area in us which experienced an increase in average test score; +1.6%. However when evaluated as national rank, AIM dropped the identical -1.6% indicating in HVAC the national group performed slightly better in 2015 as compared to 2014

2015 National Percentile Rank

2015 AIM average National Rank also decreased -14% dropping from 66th in 2014 to 57th in 2015.

Interesting Note; Although AIM Electrical/Electronic Test scores dropped 8% the 2015 National Rank increased +3%. This indicates the 2015 national test pool scored significantly lower in Electrical in 2015 as compared to 2014.

Table 1
2015 Test Scores & National Rank
Decreases in Descending order

Test Scores	National Rank
-25% Brakes	-25% Auto Trans
-19% Engine Repair	-23% Brakes
-17% Suspension & Steering	-19% Engine Repair
-13% MLR	-19% Manual Trans & Clutch
-12% Auto Trans	-18% MLR
-12% Engine Performance	-17% Suspension & Steering
-8% Electrical	-10% Engine Performance
-4% Manual Trans	-1.6% HVAC
+1.6% HVAC	+3% Electrical

Table 2
ASE Student Certification Exams
2014-2015
Comparison; Score & National Rank

Test	# Tests Pass	# Tests Fail	Test Score 2014-2015 Comparison	National Percentile Rank 2014-2015 Comparison
Suspension & Steering	7/15	8/15	60-50 -10; -17%	60-50 -10; -17%
Brakes	11/15	4/15	75-56- 19; -25%	75-58 -17;-23%
Electrical Electronics	15/16	1/16	74-68 -6; -8%	74-76 +2;+3%
Engine Performance	12/15	3/15	68-60 -8; -12%	68-61 -7; -10%
Engine Repair	10/14	4/14	64-59 -5; -8%	64-52 -12; -19%
Automatic Trans Transaxle	7/15	8/15	65-57 -8; -12%	65-50 -15; -25%
Manual Trans Clutch	7/14	7/14	52-50 -2; -4%	52-42 -10; -19%
HVAC	13/15	2/15	59-60 +1/1.6%	59-58 -1; -1.6%
MLR	13/16	3/16	77-67 -10; -13%	77-63 -14; -18%
Program Average	95/134 71%	40/134 30%	66-57 -9; -14%	66-57 -9; -14%

Table 3
ASE Student Certification Tests
Sp2015
National Percentile Rank





Name	Stu Ave 	Susp Steer	Brakes	Elec	Eng Perf	Eng Rpr	Auto Trans	Man Trans	HVAC	MLR
Prog Ave 	57	50	58	76	61	52	50	42	58	63
1	29	10	27	52	42	17	11	8	48	44
2	39	39	64	64	42	43	24	13	48	32
3	61	45	85	73	60	42	42	51	61	90
4	51	33	58	73	48	52	37	51	57	N/A
5	60	45	68	88	48	52	72	27	61	76
6	64	63	64	88	48	61	80	64	43	69
7	70	74	81	78	76	74	42	65	75	69
8	45	63	18	52	54	37	33	32	57	63
9	43	28	58	73	60	32	33	10	27	63
10	86	79	93	88	97	89	76	85	79	90
11	50	28	27	81	60	52	52	41	43	63
12	71	73	53	88	79	89	76	N/A	43	67
13	84	69	85	97	78	89	76	65	87	96
14	85	69	88	99	86	82	87	65	90	95
15	22	33	6	34	18	4	11	13	43	32
16	N/A	N/A	N/A	93	N/A	N/A	N/A	N/A	N/A	66
		Susp Steer	Brakes	Elec	Eng Perf	Eng Rpr	Auto Trans	Man Trans	HVAC	MLR

Table 4
ASE Student Certification Tests
Sp2015
Raw Score %

Name	Stu Ave 	Susp Steer	Brakes	Elec	Eng Perf	Eng Rpr	Auto Trans	Man Trans	HVAC	MLR
 Prog Ave	60	50	56	68	60	59	57	50	60	67
1	32	30	40	53	50	40	33	28	55	53
2	50	45	58	58	50	58	43	33	55	48
3	60	48	70	63	58	55	53	55	60	78
4	55	43	55	63	53	60	50	55	60	N/A
5	60	48	60	73	53	60	68	43	63	68
6	62	55	58	73	53	68	73	59	53	65
7	65	60	68	65	65	73	53	63	70	65
8	52	55	35	53	58	53	48	45	60	62
9	50	40	55	63	58	50	48	30	40	62
10	73	63	78	73	85	60	70	75	73	78
11	55	40	43	68	58	60	58	50	53	62
12	64	63	53	73	68	NA	70	NA	53	67
13	75	58	73	85	78	83	70	63	78	85
14	76	58	73	93	80	78	78	63	80	83
15	38	43	25	45	38	23	33	33	53	48
16	71	N/A	N/A	78	N/A	N/A	N/A	N/A	N/A	63
		Susp Steer	Brakes	Elec	Eng Perf	Eng Rpr	Auto Trans	Man Trans	HVAC	MLR

**AIM
2015 Assessment Report
William Bencini AIM Assistant Professor**

SLO #2 Demonstrate professional writing and oral presentation skills.

Materials assembled in this packet originated in AIM 405 Fall 2014 semester. The final 405 presentation and written paper assignment was selected as representative of SLO#2. Documents in this report include;

- #1) Completed assignments randomly selected from five students.
- #2) Printed copy of required power point presentation
- #3) Completed presentation assessment form for each presentation
- #4) Written report or outline of each presentation
- #5) Blank Presentation Assessment Form

Presentations are evaluated in three categories;

- #1) Organization
- #2) Content
- #3) Delivery.

Four skill levels exist in each category;

- #1) Below expectations
- #2) Needs Improvement
- #3) Satisfactory
- #4) Exemplary

Points are summed and a total point assigned for each presentation. Total possible points is twelve (12). Highest point total for the samples in this packet is ten (10) and the lowest is five (5). Students in the course do participate in evaluating each presentation but their score is not used for grade purposes. Prior to presentation the assessment form is discussed in class so students are aware of standards for the assignment.

This Presentation assessment form is shared by at least one other AIM faculty thereby promoting evaluation standards within the program.

AIM Presentation Rubric

Assessing Presentations				
	Below Expectation	Needs Improvement	Satisfactory	Exemplary
Organization	No apparent organization.	Some organization Speaker occasionally goes off topic. Conclusions is weak.	Presentation provides some reasonable evidence of research to support conclusions.	Presentation is carefully organized. Evidence of research to support conclusions is evident.
Content	Content is inaccurate or overly general. Listeners are unlikely to learn anything or may be misled.	Content is sometimes inaccurate or incomplete. Listeners may learn some isolated facts, but they are unlikely to gain new insights about the topic.	Content is generally accurate and reasonably complete. Listeners may develop a few insights about the topic.	Content is accurate and comprehensive. Listeners are likely to gain new insights about the topic.
Delivery	Speaker appears anxious and uncomfortable and reads notes, rather than speaks.	Speaker occasionally appears anxious or uncomfortable, and may occasionally read notes, rather than speak.	Speaker is generally relaxed and comfortable.	Speaker is professional, relaxed, and comfortable and interacts effectively with listeners.

NOTES: