Assessment: Course Four Column

FALL 2016

El Camino: Course SLOs (IND) - Automotive Technology

ECC: ATEC 14:Brakes

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #1 Safety Exam - Given an in class exam, based on readings, classroom discussions and demonstrations , the student will be able to work in the Automotive Shop safely and pass the Automotive Safety Exam with 100% accuracy. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2016-17 (Fall 2016) **Input Date:** 11/12/2013 **Inactive Date:** **Comments::**	**Exam/Test/Quiz -** The assessments is a Safety Exam that contains information that specifically targets the concepts and rational of working safely in the Automotive Shop Area. The exam contains 66 multiple choice questions which specifically targets the use of equipment and working safely with tools and one another in the automotive shop area. Students are given the test on the second day of class after the instructor has given them detailed safety instructions. **Standard and Target for Success:** Since safety is a key element in all shop classes and in the workplace, this multiple choice exam must be passed with 100% accuracy before students are allowed to work in the shop. In some cases, this requires multiple tries. **Additional Information:**	**Semester and Year Assessment Conducted:** 2016-17 (Fall 2016) **Standard Met? :** Standard Met Twenty six students took the Automotive Safety Exam, 21 students passed the exam with an A and five students passed the exam with a B. After reviewing the safety exam the students subsequently improved their knowledge and achieve better grades. (10/21/2016) **% of Success for this SLO:** **Faculty Assessment Leader:** Harry Stockwell **Faculty Contributing to Assessment:**	**Action:** Action 1. The current data and safety record in the El Camino College Automotive Shop confirms that the students are receiving good safety instructions and the students are working safely in the automotive shop. 2. Use updated and interactive media for presentation and testing which would include graphics and/or video. The use of current safety information provided in current text books provided by Pearson publications are used to reinforce the safety information using the presentations which are available from Pearson Publications. (10/21/2016) **Action Category:** Program/College Support **Follow-Up:** Check for updated equipment approved by El Camino College (10/28/2018)

Course SLOs	Assessment Method Description	Results	Actions
SLO #2 Brake Inspection - The student will perform a brake system inspection on a vehicle and complete a Vehicle Brake Inspection lab sheet. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2016-17 (Fall 2016) **Input Date:** 11/12/2013 **Inactive Date:** **Comments::**	**Laboratory Project/Report -** The students will complete a brake inspection on a vehicle. During the inspection the students will complete a Lab sheet detailing the results of their inspection. **Standard and Target for Success:** The students are required to perform brake inspections as part of their completion of the course work. It is expected that most of the students, 75% or more, will complete the Brake Inspection Lab Sheets with an A. Some of the students, 15% or more, will receive a B and it is expected that some of the students, 5% or more may receive a C on their Brake Inspection Worksheets. **Additional Information:**	**Semester and Year Assessment Conducted:** 2016-17 (Fall 2016) **Standard Met? :** Standard Met All of the students attending the AT14 class have completed multiple vehicle inspection sheets with appropriate information to inform the customers what their vehicles need for proper brake systems repair. (10/21/2016) **% of Success for this SLO:** **Faculty Assessment Leader:** Harry Stockwell **Faculty Contributing to Assessment:**	**Action:** In the Automotive Department we need more drum brake micrometers and disc brake micrometers. We also need more tire tread depth gauges, 1/2 inch Impact guns and impact sockets, and digital Vernier calipers for the students to complete their worksheets in a timely matter during the lab time allotted for the class. (10/21/2016) **Action Category:** Program/College Support
SLO #3 Drum Brake Service & Adjustment - The student will perform a drum brake system service and adjustment and complete a Vehicle Brake Service lab sheet. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2016-17 (Fall 2016) **Input Date:** 11/12/2013 **Inactive Date:** **Comments::**	**Laboratory Project/Report -** The students will inspect, assess the serviceability of a drum brake system and recommend repairs which may be needed, then adjust the brakes as needed. The students will complete a brake service lab sheet to be evaluated. **Standard and Target for Success:** It is expected that 75% to 85% of the students will complete a Brake Service lab sheet successfully. **Additional Information:** Extra equipment such as more Impact wrenches, impact sockets, torque wrenches and dial Vernier calipers are needed for the students to complete the task in the allotted	**Semester and Year Assessment Conducted:** 2016-17 (Fall 2016) **Standard Met? :** Standard Met The majority of the students completed a brake system inspection sheets which included drum brake inspection and adjustment and analysis. 98% of the students completed the lab sheet successfully. (12/19/2016) **% of Success for this SLO:** **Faculty Assessment Leader:** Harry Stockwell **Faculty Contributing to Assessment:**	**Action:** Extra equipment such as more Impact wrenches, impact sockets, torque wrenches and dial Vernier calipers are needed for the students to complete the task in the allotted time for the inspection. (12/19/2016) **Action Category:** Program/College Support

Course SLOs	Assessment Method Description	Results	Actions
	time for the inspection.		

ECC: ATEC 21:Introduction to Engine Tune-Up

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #1 Safety Exam - Given an in class exam, based on readings, classroom discussions and demonstrations , the student will be able to work in the Automotive Shop safely and pass the Automotive Safety Exam with 100% accuracy. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2014-15 (Fall 2014), 2015-16 (Fall 2015) **Input Date:** 11/12/2013 **Inactive Date:** **Comments::**	**Exam/Test/Quiz -** An in class multiple choice Safety Exam based Industry Standards. **Standard and Target for Success:** 100% of the students should score 100% on the Exam. **Additional Information:**		
	Exam/Test/Quiz - Students will take a multiple choice written safety examination after an introduction and extensive review of personal protective equipment, shop safety dangers and safe shop practices, proper use of hand tools, power tools, shop equipment and safety requirements for the course and shop lab exercises/work. **Standard and Target for Success:** The expectation is that 90% of students will pass the Safety Test with a 75% or greater score the first time the exam is given. After a class discussion and a thorough review of safety procedures and protocols, and the safety test questions,100% of students will score a 90% or greater on the Safety exam. **Additional Information:**	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Met 90% of students pass the Safety Test with a 75% or greater score the first time the exam was given. After a class discussion and a thorough review of safety procedures and protocols, and the safety test questions,100% of students scored a 100% on the Safety exam. (02/09/2016) **% of Success for this SLO:** **Faculty Assessment Leader:** Mike Anderson **Faculty Contributing to Assessment:**	**Action:** Continue to monitor test scores for student success and outcomes (02/16/2017) **Action Category:** Teaching Strategies
SLO #2 Engine Analysis - The student will perform and analysis of an engine using the Automotive Compression/ Cylinder Leakage Test /Vacuum Testing lab worksheet to manufacturer specifications. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2014-	**Laboratory Project/Report -** Students will demonstrate proficiency in engine condition diagnosis and analysis by completing a three part lab worksheet containing 1) compression testing all cylinders on a working engine 2) cylinder leakage testing those same	**Semester and Year Assessment Conducted:** 2016-17 (Fall 2016) **Standard Met? :** Standard Met 92% of students scored a 75% or above the first time that proficiency was demonstrated. After Instructor's correction 100% of students scored 75% or above the second time that proficiency was demonstrated. . This shows that S.L.O. objectives are being met at the present time. (11/17/2016)	**Action:** A few students struggled to meet the initial passing standard mostly due to students being off task and/or distracted. After identifying these students and pairing them up with more assertive, on task students, all students met current standard

Course SLOs	Assessment Method Description	Results	Actions
15 (Fall 2014), 2016-17 (Fall 2016) **Input Date:** 11/12/2013 **Inactive Date:** **Comments::**	cylinders and 3) Vacuum testing on a running engine. Prior to lab sheet work, students will glean all appropriate technical specifications and testing procedures from manufacturer service information and present this printed information to the Instructor before performing live in shop tests on a vehicle's engine. **Standard and Target for Success:** It is expected that 90% of students will score 75% or above on this SLO the first time proficiency is demonstrated. After initial correction of missed or inappropriately performed procedures by Instructor, It is expected that 100% of students will score 75% or above on this SLO. **Additional Information:**	**% of Success for this SLO:** **Faculty Assessment Leader:** Michael A. Anderson **Faculty Contributing to Assessment:**	successfully. (02/23/2017) **Action Category:** Teaching Strategies
SLO #3 Battery System Test - The student will be able to test the performance of the automotive battery charging and starting systems using the Automotive Battery/ Charging/Starting Systems Testing lab worksheet and manufacturer specifications. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2014-15 (Fall 2014), 2018-19 (Fall 2018) **Input Date:** 11/12/2013 **Inactive Date:** **Comments::**	**Laboratory Project/Report -** Using the Automotive Battery/ Charging/ Starting Systems Testing lab worksheet and manufacturers specifications as a guide, students will demonstrate proficiency in testing an automotive battery using a digital volt ohm meter (DVOM) and a "VAT-40" voltage/amperage carbon pile load tester. Prior to lab sheet work, students will glean all appropriate technical specifications and testing procedures from manufacturer service information and present this printed information to the instructor before performing live in shop tests on a vehicle's battery, charging system or starter.	**Semester and Year Assessment Conducted:** 2014-15 (Fall 2014) **Standard Met? :** Standard Met Students were each assessed in the Automotive Shop by demonstrating proficiency in automotive battery testing using a DVOM and VAT-40 carbon pile tester. 23 out of 24 students (95%) scored above 75 % and after correction by instructor, all students (100%) scored above 75%. The SLO standard and target for success was met. (03/10/2015) **% of Success for this SLO:** **Faculty Assessment Leader:** Michael Anderson **Faculty Contributing to Assessment:** Michael Anderson	**Action:** Continue to monitor test scores for student success and outcomes. (04/06/2016) **Action Category:** Teaching Strategies

Course SLOs	Assessment Method Description	Results	Actions
	Standard and Target for Success: It is expected that 90% of students will score 75% or above on this SLO the first time proficiency is demonstrated. After initial correction of missed or inappropriately performed procedures by Instructor, It is expected that 100% of students will score 75% or above on this SLO. **Additional Information:**		

ECC: ATEC 24:Fuel Systems and Emissions

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #1 Safety Exam - Given an in class exam, based on readings, classroom discussions and demonstrations , the student will be able to work in the Automotive Shop safely and pass the Automotive Safety Exam with 100% accuracy. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2016-17 (Fall 2016), 2018-19 (Fall 2018) **Input Date:** 11/12/2013 **Inactive Date:** **Comments::**	**Standardized/Licensing Exam -** SP2.org is now replacing the standardized department test This is an OSHA based software that is now used in Automotive classes to meet this goal. The curriculum that is used in the software that meets OSHA workplace safety specifical fitted for the automotive industry. A student will have to pass two exams after reading and reviewing the curriculum. **Standard and Target for Success:** A passing score of 80% or better is needed to pass the final exams. A student needs to pass SP2 training in order to enter into the lab. If the student fails to reach 80% or better they will be redirected by to SP2 for additional instruction. **Additional Information:** This is a great step forward to better meet current industry standards.	**Semester and Year Assessment Conducted:** 2016-17 (Fall 2016) **Standard Met? :** Standard Met All of the students were able to meet this with a score of 80% or better (03/01/2017) **% of Success for this SLO:** **Faculty Assessment Leader:** Matykiewicz **Faculty Contributing to Assessment:**	**Action:** Continue using and supporting SP2 safety training and build more ways to utilize features of this software into this automotive course (03/01/2017) **Action Category:** Teaching Strategies
SLO #2 Engine Condition & Performance - The student will test and evaluate engine condition and performance using an Engine Analyzer / Scanner lab worksheet to manufacturer specifications. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2016-17 (Fall 2016) **Input Date:** 11/12/2013 **Inactive Date:** **Comments::**	**Laboratory Project/Report -** This is a series of worksheets and tasks that student needs to perform. That builds an understanding of the fuel system. **Standard and Target for Success:** A student needs to receive a 70% or more of the tasks fully accomplished. **Additional Information:** This SLO needs to be replaced to better serve NATFE standards	**Semester and Year Assessment Conducted:** 2016-17 (Fall 2016) **Standard Met? :** Standard Met Students in the class were able to meet this task of understanding of the "Engine Analyzer / Scanner" via various worksheets. Only 4 out of 17 students were not able to achieve a passing score on the worksheets used in this class (03/01/2017) **% of Success for this SLO:** **Faculty Assessment Leader:** Matykeiwicz **Faculty Contributing to Assessment:**	**Action:** Update this SLO to better align with the program goals associated with the NATFE standards (03/01/2017) **Action Category:** Curriculum Changes

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #3 Fuel System Test - The student will be able to test the performance of an automotive fuel system using the Fuel System Performance Testing lab worksheet and manufacturer specifications. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2016-17 (Fall 2016) **Input Date:** 11/12/2013 **Inactive Date:** **Comments::**	**Laboratory Project/Report -** This is a series of worksheets and tasks that student needs to perform. That builds an understanding of the fuel system. **Standard and Target for Success:** A student needs to receive a 70% or more of the tasks fully accomplished. **Additional Information:** This SLO needs to be replaced to better serve NATFE standards	**Semester and Year Assessment Conducted:** 2016-17 (Fall 2016) **Standard Met? :** Standard Met Students in the class were able to meet this task of understanding of the "Fuel System" via various worksheets. Only 4 out of 17 students were not able to achieve a passing score on the worksheets used in this class (03/01/2017) **% of Success for this SLO:** **Faculty Assessment Leader:** Matykeiwicz **Faculty Contributing to Assessment:**	**Action:** Update this SLO to better align with the program goals associated with the NATFE standards (03/01/2017) **Action Category:** Curriculum Changes

ECC: ATEC 33:Transmission, Drive Train and Drive Axles

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #1 Safety Exam - Given an in class exam, based on readings, classroom discussions and demonstrations , the student will be able to work in the Automotive Shop safely and pass the Automotive Safety Exam with 100% accuracy. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015) **Input Date:** 11/12/2013 **Inactive Date:** **Comments::**	**Exam/Test/Quiz -** The class is given a standardized exam that is shared in all automotive classes. The exam has been used in the automotive department for many years and has been the measure of the students' knowledge of automotive safety. The students are allowed an hour on the exam. Then the students review the exam to see where there short comings are for the exam. **Standard and Target for Success:** It is expected that 100% of students will pass the exam and have an observable knowledge of safe working practices while the class is in lab sessions. **Additional Information:**	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Met # of students score on exam 7 100% 10 95% to 100% 2 95% to 90 % 0 90% or less 19 Total number of students taking exam Based off of the students exposure and the level of difficulty the students have been able to pass the exam with a 95 percent or better rate. The students also have been observed with the correct safe work practices when working in the lab. (02/04/2016) **% of Success for this SLO:** **Faculty Assessment Leader:** Edward Matykiewicz **Faculty Contributing to Assessment:**	**Action:** Change the standard safety exam that has been over utilized for an online version that is better equipped with multi media web based training to better enhance and enforce safety procedures that are more relevant to better enhance safety training SLO. (02/05/2017) **Action Category:** Curriculum Changes
	Exam/Test/Quiz - This is a standardized exam that is given to all students in all automotive classes. **Standard and Target for Success:** To have 100% of the class to pass the exam with 100% of the questions answered correctly. **Additional Information:**		
SLO #2 Automatic Transmission Inspection - The student will inspect, test and evaluate operation of an automatic transmission using manufacturer testing procedures and specifications. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015) **Input Date:** 11/12/2013	**Multiple Assessments -** The students have observed lab assignments, homework assignments, quizzes, hands on exams, and exams. **Standard and Target for Success:** The target for the student is full readiness for is the industry certification exam ASE (Automotive Service Excellence) which is indicated by the assessment	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Not Met All of the students did not meet the readiness standards for the ASE Exam. Students Grades 3 A 4 B 5 C	**Action:** The curriculum needs to be updated to better reflect the current NATEF (National Institute for Automotive Service Excellence) standards to better understand the operation of current automatic transmissions, which will help increase the relevance of this SLO. (02/05/2017) **Action Category:** Curriculum

Course SLOs	Assessment Method Description	Results	Actions
Inactive Date: **Comments::**	methods above. **Additional Information:**	0 D 3 F 15 Total number of students (02/05/2016) **% of Success for this SLO:** **Faculty Assessment Leader:** Edward Matykiewicz **Faculty Contributing to Assessment:**	Changes
SLO #3 Manual Transmission Inspection - The student will inspect, test and evaluate operation of a manual transmission using manufacturer testing procedures and specifications. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2016-17 (Fall 2016) **Input Date:** 11/12/2013 **Inactive Date:** **Comments::**	**Laboratory Project/Report -** The student is to perform task of diagnostics and repair on a transmission through various worksheets used in the lab sessions **Standard and Target for Success:** Student's must reach 70% or better on their lab worksheets. **Additional Information:** This SLO needs to be replaced due to the alignment of the NATFE curriculum and lack of full manufacturers support of testing and specifications	**Semester and Year Assessment Conducted:** 2016-17 (Fall 2016) **Standard Met? :** Standard Met The current students were able to complete the worksheets for this class. 2 out of 21 were able to receive a passing grade on the worksheets used in the lab. (03/01/2017) **% of Success for this SLO:** **Faculty Assessment Leader:** Matykeiwicz **Faculty Contributing to Assessment:**	**Action:** Replace this SLO with one that better meets current industry (03/01/2017) **Action Category:** Curriculum Changes
SLO #4 Manual Transmission Performance - The student will disassemble, inspect, measure and evaluate the parts of a manual transmission, then reassemble and test the transmission using manufacturer procedures and specifications. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2017-18 (Fall 2017) **Input Date:** 11/12/2013 **Inactive Date:** **Comments::**			
SLO #5 Automatic Transmission Performance - The student will disassemble, inspect, measure and evaluate the parts of an automatic			

Course SLOs	Assessment Method Description	Results	Actions
transmission, then reassemble and test the automatic transmission using manufacturer procedures and specifications. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2018-19 (Fall 2018) **Input Date:** 11/12/2013 **Inactive Date:** **Comments::**			

ECC: ATEC 41:Engine Rebuilding

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #1 Safety Exam - Given an in class exam, based on readings, classroom discussions and demonstrations, the student will be able to work in the Automotive Shop safely and pass the Automotive Safety Exam with 100% accuracy. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015) **Input Date:** 11/12/2013 **Inactive Date:** **Comments::**	**Exam/Test/Quiz -** Given an in class exam, based on readings, classroom discussions and demonstrations, the student will be able to work in the Automotive Shop safely and pass the Automotive Safety Exam with 100% accuracy. **Standard and Target for Success:** Since safety is a key element in all shop classes and in the workplace, this multiple choice exam must be passed with 100% accuracy before students are allowed to work in the shop. In some cases, this requires multiple tries **Additional Information:** All of the students were able to pass the Safety Exam, but after reviewing the exam and some the safety procedures which the students were having difficulties with, many of the students were able to achieve a higher goals after reviewing the Safety procedures. I also used a new DVD to help illustrate and reinforce the safety information presented in class.	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Met A Safety Exam was given in class 17 students passed the exam with an A, 5 students passed the exam with a B, and 2 students passed the exam with a C. Upon review of the Safety Exam the students were reevaluated and all the students received an A (24 Students in all). All of the students were able to pass the Safety Exam, but after reviewing the exam and some the safety procedures which the students were having difficulties with, many of the students were able to achieve a higher goals after reviewing the Safety procedures. I also used a new DVD to help illustrate and reinforce the safety information presented in class. (12/17/2015) **% of Success for this SLO:** **Faculty Assessment Leader:** Harry Stockwell **Faculty Contributing to Assessment:** None	**Action:** After reviewing the Safety presentations, I have incorporated the use of a new Safety DVD which seems to help the students understanding of the proper safety protocols in the automotive shop. (12/17/2017) **Action Category:** Teaching Strategies
SLO #2 Cylinder Head Recondition - The student will recondition an automotive cylinder head using manufacturer procedures and specifications, then complete a lab sheet. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2016-17 (Fall 2016)	**Laboratory Project/Report -** The students will disassemble, clean and evaluate at least two cylinder heads. The students will then recondition the cylinder heads to manufacturers requirements. The students will inspect the valve guides, valve seats, valves and the machined surfaces of	**Semester and Year Assessment Conducted:** 2016-17 (Fall 2016) **Standard Met? :** Standard Met 76% to 80% of the students completed this task. More of the students would be able to complete the reconditioning processes of the cylinder heads according to manufacturers requirements and specifications to achieve completion of the project if we had more equipment to implement the	**Action:** We need 2 more valve refacing machines, 3 more valve cutting machines, 4 valve seat grinding and 4 valve seat cutting machines and 1 more newer resurfacing machine to help ensure student success in their course work to acquire their

Course SLOs	Assessment Method Description	Results	Actions
Input Date: 11/12/2013 **Inactive Date:** **Comments::**	the cylinder heads. After inspection of the cylinder heads, the students will perform machining processes to the cylinder head such resizing or replacement of valve guides as needed, reface the valve faces and valve stem tips, reface and/or grind the valve seats and resurface the deck of the head that mates up with surface of the block. **Standard and Target for Success:** It expected that 75% to 80% of the students will complete this task. The students will complete the reconditioning processes of the cylinder heads according to manufacturers requirements and specifications to achieve completion of the project. The students will also complete a lab sheet for the completion of the project and submit the lab sheet to the instructor. **Additional Information:** This course meets NATEF requirements for the Automotive Technology Program to help the program to become NATEF and ASE (NIASE) National Institute of Automotive Service Excellence Certified. The Automotive Department needs new machines for machining the cylinder walls of the engine blocks of newer engines! Equipment such as Engine Cylinder Power hone Sunnen CV-20. We also need new Valve refacing machines to properly machine the valves and newer seat grinding machines to properly train the students how to perform these machining	machining process of the valve seats, valve refacers to recondition the valves and another cylinder head resurfacer. The students completed a lab sheet for the completion of the project and submit the lab sheet to the instructor. This course helps the students to meet the requirements for the A1 ASE (National Institute of Automotive Service Excellence) requirements and NATEF Certification requirements. (12/19/2016) **% of Success for this SLO:** **Faculty Assessment Leader:** Harry Stockwell **Faculty Contributing to Assessment:**	certificates and their degrees in Automotive Technology, and achieve ASE and NATEF certification. These actions will lead to more FTES for the program and student success with more FTES for El Camino College. (12/19/2016) **Action Category:** Program/College Support

Course SLOs	Assessment Method Description	Results	Actions
	processes on the newer engines used on in automobiles, trucks and busses in today's industry. .		
SLO #3 Engine Inspection & Test - The student will disassemble, inspect, measure and evaluate the parts of an automotive engine, then reassemble and test the engine using manufacturer procedures and specifications. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2018-19 (Fall 2018) **Input Date:** 11/12/2013 **Inactive Date:** **Comments::**			