Assessment Impact by Course Objectives Palau Community College Program (AM) - Automotive Mechanics Technology

Program (AM) - Automotive Mechanics Technology

CLO: AM 126 - Engine Servicing II: CLO 1

Troubleshoot Engine Mechanical Failure

CLO Assessment Cycle: 2014-2015 (Spring 2015)

CLO Status: Active

	1	Means of Assessment		
Means of Assessment		Expected Student Performance	Notes	Active
Name engine parts and components and explain their functions and opera and analyze Cause and Effect involving engine mechanical failure.	ating principles	70% of the students assessed will pert the proficiency level.	form at	Yes
Signature assignment: Final Exam				
Measure engine compression pressure, Measure engine oil pressure, Che by, Check engine valve clearance, Check unusual knocking or grinding s Check engine timing.	ck engine blow- sound, and	- 70% of the students assessed will pert the proficiency level.	form at	Yes
Signature assignment: Practical Application Skill Test				
		Results		
Summary of Data Collected	Use of Result	ts	Follow-Up	Semester Assessed
Final Exam - 06/02/2015 - 29.4% of the students assessed performed at the proficiency level. Expected Student Performance Met: No	06/16/2015 - 5 out of 17 str and none is h the students ε	Actual results: udents are proficient; 5 are competent ighly competent. Therefore, 29.4% of assessed passed the knowledge test.		2014 - 2015 (Spring 2015)
Related Documents: AM-126 mid-term exam knowledge test spring 2015.pdf	Analyzed resu The stud concepts of tr failure is obv	ults: lents have problems on grasping the roubleshooting engine mechanical ious on the test result.		

Recommendations:

1.) Set-up film showing to help the students understand the principles of engine operation and concepts of Troubleshooting Engine Mechanical Failure.

2.) Add repair manuals to help the students know the concepts and specifications of Engine

	Results		
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
Summary of Data Collected	 Use of Results Mechanical system. Action plan: Purchase repair manuals (e-copy and in print) before December 2015. Purchase a DVD movie that correlates to Troubleshooting Engine Mechanical Failure befor December 2015. Extended services offered; to produce more highly competent students in knowledge and skills for the next semester (spring 2016). Tutorial services (assistant instructor will give additional lecture and hands-on practice on CLO #1; students are encourage to come in the shop on their free time for knowledge and skills enhancement. Auto club will offer car servicing (the students approved by Federal Work study will be employed in Auto Club). Set-up work stations for all the CLOs of AM-126 Set-up film viewing 	Follow-Up	Semester Assessed
Practical Application Skill Test - 06/02/2015 - 59% of the students assessed performed at the proficiency level. Expected Student Performance Met: No Related Documents: AM-126 skills assessment spring 2015.pdf	 5.) Conduct in-house Skills Olympic 06/16/2015 - Actual results: 0 out of 17 students are proficient; 6 are competent and 4 are highly competent. Therefore, 59% of the students assessed passed the skills assessment. Analyzed results: Privation on comprehending and analyzing gathered data is obvious on the skills test. Recommendations: Course success can be improved by; 1.) Adding more mock-ups for CLO #1 (to have more laboratory hands-on practice and to enhance servicing technique). 2.) Forming repair shop (to enhance servicing technique and gain more skills and experience. 3.) Adding repair manuals (for reference in specification of engine system and components). 4.) Expanding classrooms areas (to create conduct learning environment; engine parts and component will be displayed with name tags, and specifications. 5.) Video every laboratory activities to review the laboratory performance and techniques 	ve ts ir	2014 - 2015 (Spring 2015)

	Results		
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
	 Produce additional mock-ups, before December 2015. Establish repair shop (a business repair shop) before December 2015. Purchase repair manuals (e-copy and/or in-print) December 2015. Renovate Classroom before December 2015. Purchase video cam and automotive technology DVD movies before December 2015. Extended services offered; to produce more highly competent students in knowledge and skills for the next semester (spring 2016). Tutorial services (assistant instructor will give additional lecture and hands-on practice on CLO #1; students are encourage to come in the shop on their free time for knowledge and skills enhancement. Auto club will offer car servicing (the students approved by Federal Work study will be employed in Auto Club). Set-up work stations for all the CLOs of AM-126 Set-up film viewing Conduct in-house Skills Olympic 		
Practical Application Skill Test - 07/15/2014 - 83% of the students assessed performed at the proficiency level. Expected Student Performance Met: Yes Related Documents:	07/15/2014 - No action needed at this time.		2013 - 2014 (Spring 2014)
AM126 skills sp14.pdf			
Final Exam - 07/15/2014 - 67% of the students assessed performed at the proficiency level. Expected Student Performance Met: No	07/15/2014 - More time needs to be spent on this part of the course and students need to attend more regularly.		2013 - 2014 (Spring 2014)
Related Documents: AM126 fe sp14.pdf			

Service Engine Top End Components

CLO Assessment Cycle: 2014-2015 (Spring 2015)

Means of Assessment			
Means of Assessment	Expected Student Performance	Notes	Active

Means of Assessment				
Means of Assessment	Expected Student	Performance Notes	Active	
Explain Valve Train operating principle and analyze valve train cause and correlates engine performance and fuel economy.	1 effect that 70% of the students the proficiency leve	assessed will perform at el.	Yes	
Signature assignment: Final Exam				
Grind engine valve, Measure cylinder head warpage, Measure engine valve stem oil clearance, Check valve spring square ness, Install valve train mechanism, Adjust engine valve clearance, Test engine valve leakage.70% of the students assessed will perform at the proficiency level.Yes				
Signature assignment: Practical Application Skill Test				
	Results			
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed	
Final Exam - 06/02/2015 - 64.7% of the students assessed performed at the proficiency level. Expected Student Performance Met: No Related Documents: AM-126 mid-term exam knowledge test spring 2015 pdf	06/16/2015 - Actual results: 11 out of 17 students are proficient competent and 2 are highly compe 64.7% of the students assessed pas knowledge test.	t; 11 are tent. Therefore, ssed the	2014 - 2015 (Spring 2015)	

Final Exam - 06/02/2015 - 64.7% of the students assessed performed at the proficiency level. Expected Student Performance Met: No	06/16/2015 - Actual results: 11 out of 17 students are proficient; 11 are competent and 2 are highly competent. Therefore, 64.7% of the students assessed passed the	2014 - 2015 (Spring 2015)
Related Documents:	knowledge test.	
AM-126 mid-term exam knowledge test spring 2015.pdf	Analyzed results: The students have problems on grasping the concept of engine valve mechanism is obvious on the test result.	
	Recommendations: 1.) Set-up film showing to help the students understand the principles of engine valve mechanism operating principles. 2.) Add repair manuals to help the students know the concepts of valve mechanism and the specification of top end components.	
	 Action plan: Purchase repair manuals (e-copy and in print) before December 2015. Purchase a DVD movie that correlates to top-end components servicing, before December 2015. Extended services offered; to produce more highly competent students in knowledge and skills for the next semester (spring 2016). Tutorial services (assistant instructor will give additional lecture and hands-on practice on CLO #2; students are encourage to come in the shop on their free time for knowledge and skills enhancement. Auto club will offer car servicing (the students 	

	Results		
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
	 approved by Federal Work study will be employed in Auto Club). 3.) Set-up work stations for all the CLOs of AM- 126 4.) Set-up film viewing 5.) Conduct in-house Skills Olympic 	1	
Practical Application Skill Test - 06/02/2015 - 76.5% of the students assessed performed at the proficiency level. Expected Student Performance Met: Yes Related Documents: AM-126 skills assessment spring 2015.pdf	 06/16/2015 - Actual results: 13 out of 17 students are proficient; 9 are competent and 4 are highly competent. Therefore, 76.5% of the students assessed passed the skills assessment. Analyzed results: Skills assessment was good, but the highly competent students are less than the number of competent students. Recommendations: Course success can be improved by; 1.) Adding more mock-ups for CLO #2 (to have more laboratory hands-on practice and to enhance servicing technique). 2.) Having repair shop (business repair shop) to enhance servicing technique and gain more skills and experience. 3.) Adding repair manuals (for reference in specification of engine system and components). 4.) Expanding classrooms areas (to create conduci learning environment; top end will be displayed with name tags, and specifications. 5.) Video every laboratory activities to review the laboratory performance and techniques. Action Plan: Produce additional mock-ups, before December 2015. Purchase repair manuals (e-copy and/or in-print December 2015. Purchase video cam and automotive technology DVDs movies before December 2015. Purchase video cam and automotive technology DVDs movies before December 2015. Extended services offered; to produce more highly competent students in knowledge and skills for the next semester (spring 2016). Tutorial services (assistant instructor will give additional lecture and hands-on practice on CLO #2; students are encourage to come in the shop on their free time for knowledge and skills enhancement. 	ve ir vr t) y	2014 - 2015 (Spring 2015)

	Results		
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
	 2.) Auto club will offer car servicing (the students approved by Federal Work study will be employed in Auto Club). 3.) Set-up work stations for all the CLOs of AM-126 4.) Set-up film viewing 5.) Conduct in-house Skills Olympic 		
Practical Application Skill Test - 07/15/2014 - 100% of the students assessed performed at the proficiency level. Expected Student Performance Met: Yes	07/15/2014 - No action needed at this time.		2013 - 2014 (Spring 2014)
Related Documents: AM126 skills sp14.pdf			
Final Exam - 07/15/2014 - 83% of the students assessed performed at the proficiency level. Expected Student Performance Met: Yes	07/15/2014 - No action needed at this time.		2013 - 2014 (Spring 2014)
Related Documents: AM126 fe sp14.pdf			

Service Engine Bottom End Components

CLO Assessment Cycle: 2014-2015 (Spring 2015)

Means of Assessment					
Means of Assessment	Expected Student Performance	Notes	Active		
Differentiate classifications of engine blocks and Analyze cause and effect involving engine bottom end problems.	70% of the students assessed will perform at the proficiency level.		Yes		
Signature assignment: Final Exam					
Clean engine block assembly, Install piston ring, Install piston assembly, Install crankshaft and bearing assembly, Install connecting rod and caps, Measure crankshaft bearing oil clearance, Measure crankshaft thrust clearance, Measure piston protrusion, Install oil pump and oil pan assembly.	70% of the students assessed will perform at the proficiency level.		Yes		
Signature assignment: Practical Application Skill Test					
	Results				

Results				
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed	
Final Exam - 06/02/2015 - 70.6% of the students assessed performed at the proficiency level. Expected Student Performance Met: Yes Related Documents: AM-126 mid-term exam knowledge test spring 2015.pdf	06/16/2015 - Actual results: 12 out of 17 students are proficient; 6 are competent and 6 are highly competent. Therefore, 70.6% of the students assessed passed the knowledge test.		2014 - 2015 (Spring 2015)	
	Analyzed results: The knowledge test result was good, but the highly competent students are less than the number of competent students.			
	 Recommendations: Set-up film showing to help the students familiarized the specification of engine bottom end components. Add repair manuals to help the students know the specifications of engine bottom end components. 			
	 Action plan: Purchase repair manuals (e-copy and in print) before December 2015. Purchase a DVD movie that correlates to servicing engine bottom end components, before December 2015. 			
	 Extended services offered; to produce more highly competent students in knowledge and skills for the next semester (spring 2016). 1.) Tutorial services (assistant instructor will give additional lecture and hands-on practice on CLO #3; students are encourage to come in the shop on their free time for knowledge and skills. 			
	 enhancement. 2.) Auto club will offer car servicing (the students approved by Federal Work study will be employed in Auto Club). 3.) Set-up work stations for all the CLOs of AM-126 			
	4.) Set-up film viewing5.) Conduct in-house Skills Olympic			
Practical Application Skill Test - 06/02/2015 - 53% of the students assessed performed at the proficiency level. Expected Student Performance Met: No	06/16/2015 - Actual results: 9 out of 17 students are proficient; 5 are competent and one is highly competent. Therefore, 53% of the students assessed passed the skills assessment.		2014 - 2015 (Spring 2015)	
Related Documents: AM-126 skills assessment spring 2015.pdf	Analyzed results: The students need more hands-on practice and experience to improve their skills on CLO #3.	l		
	Recommendations: Course success can be improved by;			

Results			
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
	 Adding more mock-ups for CLO #3 (to have more laboratory hands-on practice and to enhance servicing technique). Having repair shop (to enhance servicing technique and gain more skills and experience. Adding repair manuals (for reference in specification of engine system and components). Expanding classrooms areas (to create conducive learning environment; engine parts and components will be displayed with name tags, and specifications. Video every laboratory activities to review their laboratory performance and techniques. 	e	
	 Action Plan: Produce additional mock-ups, before December 2015. Establish repair shop before December 2015. Purchase repair manuals (e-copy and/or in-print) December 2015. Renovate Classroom before December 2015. Purchase video cam and automotive technology DVDs movies before December 2015. Extended services offered; to produce more highly competent students in knowledge and skills for the next semester (spring 2016). Tutorial services (assistant instructor will give additional lecture and hands-on practice on CLO #3; students are encourage to come in the shop on their free time for knowledge and skills enhancement. Auto club will offer car servicing (the students approved by Federal Work study will be employed in Auto Club). Set-up work stations for all the CLOs of AM-126 Set-up film viewing Conduct in-house Skills Olympic 		
Practical Application Skill Test - 07/15/2014 - 83% of the students assessed performed at the proficiency level. Expected Student Performance Met: Yes Related Documents: AM126 skills sp14.pdf	07/15/2014 - No action needed at this time.		2013 - 2014 (Spring 2014)
Final Exam - 07/15/2014 - 50% of the students assessed performed at the proficiency level. Expected Student Performance Met: No Related Documents:	07/15/2014 - More time needs to be spent on this part of the course and students need to attend class more regularly.		2013 - 2014 (Spring 2014)

	Results		
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
AM126 fe sp14.pdf			

Service Engine Front end Components

CLO Assessment Cycle: 2014-2015 (Spring 2015)

Means of Assessment				
Means of Assessment	Expected Student Performance	Notes	Active	
Differentiate classifications of Engine Front End Components and analyze cause and effect involving front end components problems.	70% of the students assessed will perform at the proficiency level.		Yes	
Signature assignment: Final Exam				
Replace camshaft oil seal, Replace crankshaft oil seal, Replace engine timing belt, Install timing chain, Install timing gear, Install timing cover, and Install water pump assembly.	1 70% of the students assessed will perform at the proficiency level.		Yes	
Signature assignment: Practical Application Skill Test				

Results			
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
Final Exam - 06/02/2015 - 52.9% of the students assessed performed at	06/16/2015 - Actual results:		2014 - 2015 (Spring
the proficiency level.	9 out of 17 students are proficient; 9 are competent		2015)
Expected Student Performance Met:	and none is highly competent. Therefore, 52.9% of		
No	the students assessed passed the knowledge test.		
Related Documents:			
AM-126 mid-term exam knowledge test spring 2015.pdf	Analyzed results: The students need help in comprehending the		
	concepts of engine Front end components		
	concepts of engine i font end components.		
	Recommendations:		
	1.) Set-up film showing to help the students		
	familiarized the concepts of engine front end		
	mechanism and specifications.		
	2.) Add repair manuals to help the students		
	know the concepts and specification of Engine		
	Front end Components.		
	Action plan:		
	1.) Purchase repair manuals (e-copy and in		
	print) before December 2015.		
	2.) Purchase a DVD movie that correlates to		
1			

Results			
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
	 servicing front end components, before December 2015. Extended services offered; to produce more highly competent students in knowledge and skills for the next semester (spring 2016). 1.) Tutorial services (assistant instructor will give additional lecture and hands-on practice on CLO #4; students are encourage to come in the shop on their free time for knowledge and skills enhancement. 2.) Auto club will offer car servicing (the students approved by Federal Work study will be employed in Auto Club). 3.) Set-up work stations for all the CLOs of AM-126 4.) Set-up film viewing 5.) Conduct in-house Skills Olympic 		
Practical Application Skill Test - 06/02/2015 - 35.3% of the students assessed performed at the proficiency level. Expected Student Performance Met: No Related Documents: AM-126 skills assessment spring 2015.pdf	 06/16/2015 - Actual results: 6 out of 17 students are proficient; 5 are competent and one is highly competent. Therefore, 35.3% of the students assessed passed the knowledge test. Analyzed results: The students need more hands-on practice and experience to improve their skills on CLO #4. Recommendations: 1.) Adding more mock-ups for CLO #4 (to have more laboratory hands-on practice and to enhance servicing technique). 2.) Having repair shop (business repair shop; to enhance servicing technique and gain more skills and experience. 3.) Adding repair manuals (for the specifications of engine system and components). 4.) Expanding classrooms areas (to create conductive learning environment; engine parts and component will be displayed with name tags, and specifications. 5.) Video every laboratory activities to review their laboratory performance and techniques. Action Plan: 1.) Produce additional mock-ups, before December 2015. 3.) Purchase repair manuals (e-copy and/or in-print December 2015. 4.) Renovate Classroom before December 2015. 5.) Purchase video cam and automotive technology DVDs movies before December 2015. 	t f ve s r r	2014 - 2015 (Spring 2015)

Results			
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
	 Extended services offered; to produce more highly competent students in knowledge and skills for the next semester (spring 2016). 1.) Tutorial services (assistant instructor will give additional lecture and hands-on practice on CLO #4; students are encourage to come in the shop on their free time for knowledge and skills enhancement. 2.) Auto club will offer car servicing (the students approved by Federal Work study will be employed in Auto Club). 3.) Set-up work stations for all the CLOs of AM-126 4.) Set-up film viewing 5.) Conduct in-house Skills Olympic 		
Practical Application Skill Test - 07/15/2014 - 100% of the students assessed performed at the proficiency level. Expected Student Performance Met: Yes Related Documents: <u>AM126 skills sp14.pdf</u>	07/15/2014 - No action needed at this time.		2013 - 2014 (Spring 2014)
Final Exam - 07/15/2014 - 67% of the students assessed performed at the proficiency level. Expected Student Performance Met: No Related Documents: <u>AM126 fe sp14.pdf</u>	07/15/2014 - More time needs to be spent on this part of the course and students need to attend class more regularly.		2013 - 2014 (Spring 2014)

Overhaul Engine Assembly

CLO Assessment Cycle: 2014-2015 (Spring 2015)

Means of Assessment				
Means of Assessment	Expected Student Performance	Notes	Active	
List down engine specifications and analyze engine diagnostic code and explain cause and effect involving engine overhauling problems.	70% of the students assessed will perform at the proficiency level.		Yes	
Signature assignment: Final Exam				

Means of Assessment				
Means of Assessment	Expected Student Performance	Notes	Active	
Remove engine assembly, Dismantle engine parts, Clean engine parts, Measure engine mechanical oil clearance, Assemble engine parts, and Reinstall engine assembly.	70% of the students assessed will perform at the proficiency level.		Yes	

Signature assignment:

Practical Application Skill Test

Results			
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
Final Exam - 06/02/2015 - 41.2% of the students assessed performed at the proficiency level. Expected Student Performance Met: No	06/16/2015 - Actual results: 7 out of 17 students are proficient; 6 are competent and one is highly competent. Therefore, 41.2% of the students assessed passed the knowledge test.		2014 - 2015 (Spring 2015)
Related Documents: AM-126 final exam knowledge spring 2015.pdf	Analyzed results: The students need help in comprehending the concepts of overhauling the engine.		
	 Recommendations: Set-up film showing to help the students familiarized the concepts of engine mechanical system and specifications. Add repair manuals to help the students know the concepts and specification of engine mechanical system. 		
	 Action plan: Purchase repair manuals (e-copy and in print) before December 2015. Purchase a DVD movie that correlates to engine overhauling, before December 2015. Extended services offered; to produce more highly competent students in knowledge and skills for the next semester (spring 2016). Tutorial services (assistant instructor will give additional lecture and hands-on practice on CLO #5; students are encourage to come in the shop on their free time for knowledge and skills enhancement. Auto club will offer car servicing (the students approved by Federal Work study will be employed in Auto Club). Set-up work stations for all the CLOs of AM-126 Set-up film viewing Conduct in-house Skills Olympic 		
Practical Application Skill Test - 06/02/2015 - 41.2% of the students assessed performed at the proficiency level. Expected Student Performance Met:	06/16/2015 - Actual results: 7 out of 17 students are proficient; 4 are competent and 3 are highly competent. Therefore, 41.2% of		2014 - 2015 (Spring 2015)

Results			
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
No	the students assessed passed the knowledge test.		
Related Documents:	Analyzed results:		
AM-126 skills assessment spring 2015.pdf	The students need more hands-on practice and	1	
	experience to improve their skills on CLO # 5.		
	Recommendations:		
	Course success can be improved by;		
	1.) Adding more mock-ups for CLO #5 (to have		
	more laboratory nands-on practice and to enhance servicing technique)		
	2.) Having repair shop (business repair shop to		
	enhance servicing technique and gain more skills		
	and experience.		
	3.) Adding repair manuals (for reference in		
	specification of engine system and components).		
	4.) Expanding classrooms areas (to create conduct)	/e	
	will be displayed with name tags, and	0	
	specifications.		
	5.) Video every laboratory activities to review their	r	
	laboratory performance and techniques.		
	Action Plan:		
	1.) Produce additional mock-ups, before December		
	2015.		
	2.) Establish repair shop before December 2015.	х х	
	3.) Purchase repair manuals (e-copy and/or in-print December 2015	.)	
	4.) Renovate Classroom before December 2015.		
	5.) Purchase video cam and automotive technology	,	
	DVDs movies before December 2015.		
	Extended services offered; to produce more highly		
	competent students in knowledge and skills for the		
	1.) Tutorial services (assistant instructor will give		
	additional lecture and hands-on practice on CLO		
	#5; students are encourage to come in the shop on		
	their free time for knowledge and skills		
	enhancement.		
	2.) Auto club will other car servicing (the students approved by Federal Work study will be employed		
	in Auto Club).		
	3.) Set-up work stations for all the CLOs of AM-		
	126		
	4.) Set-up film viewing 5.) Conduct in house Skills Olympic		
	5.) Conduct in-nouse Skins Olympic		
Practical Application Skill Test 07/15/2014 92% of the students	07/15/2014 No action product at this time		2013 2014 (Spring
assessed performed at the proficiency level.	07715/2014 - 100 action needed at this time.		2013 - 2014 (Spring 2014)
Expected Student Performance Met:			,
Yes			

Results			
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
Related Documents: AM126 skills sp14.pdf			
Final Exam - 07/15/2014 - 50% of the students assessed performed at the proficiency level. Expected Student Performance Met: No	07/15/2014 - More time needs to be spent on this part of the course and students need to attend class more regularly.		2013 - 2014 (Spring 2014)
Related Documents: AM126 fe sp14.pdf			