

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

**Program (AM) - Automotive Mechanics Technology**

**CLO: AM 225 - Automatic Computer Control System: CLO 1**

Service Electronic Fuel Injection System

**CLO Assessment Cycle:** 2014-2015 (Spring 2015)

**CLO Status:** Active

Means of Assessment			
Means of Assessment	Expected Student Performance	Notes	Active
Differentiate EFI sensors, actuators, and control unit, explain their function and operating principle, and analyze cause and effect involving EFI problems.  <b>Signature assignment:</b> Final Exam	70% of the students assessed will perform at the proficiency level.		Yes
Service electric fuel pump, Service electronic fuel injection ECU (Electronic Controlled Unit), and Service electronic fuel injectors. <b>Signature assignment:</b> Practical Application Skill Test	70% of the students assessed will perform at the proficiency level.		Yes

Results			
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
Final Exam - 06/03/2015 - 72.7% of the students assessed performed at the proficiency level. <b>Expected Student Performance Met:</b> Yes  <b>Related Documents:</b> <a href="#">AM-225 final exam knowledge spring 2015.pdf</a>	06/09/2015 - Actual results: 8 out of 11 students are proficient; 8 are competent and none is highly competent. Therefore, 72.7% of the students assessed passed the knowledge test.  Analyzed results: Logically, the knowledge test result was good, but the highly competent students are less than the number of competent students.  Recommendations: CLO #1 must be changed into a comprehensive learning outcome that will equip the students to Run the Monitor of PCM.  Action Plan: CLO #1 must be revised before September 2015. Run the Monitor will be the new description for CLO #1.		2014 - 2015 (Spring 2015)

**Results**

Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
	<p>Extended services offered; to produce more highly competent students in knowledge and skills for the next semester (spring 2016).</p> <ol style="list-style-type: none"> <li>1.) 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.</li> <li>2.) Auto club will offer car servicing (the students approved by Federal Work study will be employed in Auto Club).</li> <li>3.) Set-up work stations for all the CLOs of AM-225</li> <li>4.) Set-up film viewing</li> <li>5.) Conduct in-house Skills Olympic</li> </ol>		
<p>Practical Application Skill Test - 06/03/2015 - 100% of the students assessed performed at the proficiency level.</p> <p><b>Expected Student Performance Met:</b> Yes</p> <p><b>Related Documents:</b> <a href="#">AM-225 skills assessment spring 2015.pdf</a></p>	<p>06/10/2015 - Actual results: 11 out of 11 students are proficient; 9 are competent and 2 are highly competent. Therefore, 100% of the students assessed passed the skills assessment.</p> <p>Analyzed results: Logically, the result of skills assessment was good, but the highly competent students are less than the number of competent students.</p> <p>Recommendations: CLO #1 must be changed into a comprehensive learning outcome that will equip the students to Run the Monitor of PCM.</p> <p>Action Plan: CLO #1 must be revised before September 2015. Run the Monitor will be the new description for CLO #1.</p> <p>Extended services offered; to produce more highly competent students in knowledge and skills for the next semester (spring 2016).</p> <ol style="list-style-type: none"> <li>1.) 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.</li> <li>2.) Auto club will offer car servicing (the students approved by Federal Work study will be employed in Auto Club).</li> <li>3.) Set-up work stations for all the CLOs of AM-225</li> <li>4.) Set-up film viewing</li> <li>5.) Conduct in-house Skills Olympic</li> </ol>		<p>2014 - 2015 (Spring 2015)</p>

Results			
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
Practical Application Skill Test - 07/08/2014 - 100% of the students assessed performed at the proficiency level. <b>Expected Student Performance Met:</b> Yes <b>Related Documents:</b> <a href="#">AM225 skills.pdf</a>	07/08/2014 - No action needed at this time.		2013 - 2014 (Spring 2014)
Final Exam - 07/08/2014 - 0% of the students assessed performed at the proficiency level. <b>Expected Student Performance Met:</b> No <b>Related Documents:</b> <a href="#">AM225 final exam.pdf</a>	07/08/2014 - Based on the test results it is recommended, that the students be given a task to do research to better understand the principles of operation and function of each part and component. Video clips should be viewed during laboratory time to help students familiarize part names, sequence and specifications.		2013 - 2014 (Spring 2014)

**CLO: AM 225 - Automatic Computer Control System: CLO 2**

Service Electronic Controlled Ignition System

**CLO Assessment Cycle:** 2014-2015 (Spring 2015)

**CLO Status:** Active

Means of Assessment			
Means of Assessment	Expected Student Performance	Notes	Active
Explain Electronic ignition system operating, principles of operation, and analyze cause and effect involving electronic ignition system problems.  <b>Signature assignment:</b> Final Exam	70% of the students assessed will perform at the proficiency level.		Yes
Service electronic controlled ignition components, Service distributor assembly, Service electronic controlled ignition system actuator. <b>Signature assignment:</b> Practical Application Skill Test	70% of the students assessed will perform at the proficiency level.		Yes

Results			
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
Final Exam - 06/03/2015 - 100% of the students assessed performed at the proficiency level. <b>Expected Student Performance Met:</b> Yes <b>Related Documents:</b> <a href="#">AM-225 final exam knowledge spring 2015.pdf</a>	06/09/2015 - Actual results: 11 out of 11 students are proficient; 10 are competent and one is highly competent. Therefore, 100% of the students assessed passed the knowledge test.  Analyzed results: Logically, the knowledge test result was good,		2014 - 2015 (Spring 2015)

**Results**

Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
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but the highly competent students are less than the number of competent students.

Recommendations:

CLO #2 must be changed into a comprehensive learning outcome that will equip the students to Operate G-scan 2 Diagnostic tool: a diagnostic tool used to monitor engine devices controlled by electrically or PCM.

Action Plan:

CLO #2 must be revised before September 2015. Operate G-scan 2 Diagnostic tool will be the new description for CLO #2.  
 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 #2; 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-225  
 4.) Set-up film viewing  
 5.) Conduct in-house Skills Olympic

Practical Application Skill Test - 06/03/2015 - 81.8% of the students assessed performed at the proficiency level.

**Expected Student Performance Met:**

No

**Related Documents:**

[AM-225 skills assessment spring 2015.pdf](#)

06/09/2015 - Actual results:  
 9 out of 11 students are proficient; 9 are competent and none is highly competent. Therefore, 81.8% of the students assessed passed the skills assessment.

Analyzed results:

Logically, the result of skills assessment for CLO #2 was good, but no students reached the level of highly competent.

Recommendations:

CLO #2 must be changed into a comprehensive learning outcome that will equip the students to Operate G-scan 2 Diagnostic tool: a diagnostic tool used to monitor engine devices controlled by electrically or PCM.

Action Plan:

CLO #2 must be revised before September 2015. Operate G-scan 2 Diagnostic tool will be the new description for CLO #2.  
 Extended services offered; to produce more highly

2014 - 2015 (Spring 2015)

Results			
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
	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 #2; 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-225 4.) Set-up film viewing 5.) Conduct in-house Skills Olympic		
Practical Application Skill Test - 07/08/2014 - 100% of the students assessed performed at the proficiency level. <b>Expected Student Performance Met:</b> Yes <b>Related Documents:</b> <a href="#">AM225 skills.pdf</a>	07/08/2014 - No action needed at this time.		2013 - 2014 (Spring 2014)
Final Exam - 07/08/2014 - 100% of the students assessed performed at the proficiency level. <b>Expected Student Performance Met:</b> Yes <b>Related Documents:</b> <a href="#">AM226 final exam.pdf</a>	07/08/2014 - No action needed at this time.		2013 - 2014 (Spring 2014)

**CLO: AM 225 - Automatic Computer Control System: CLO 3**

Service Engine Computer Control Unit

**CLO Assessment Cycle:** 2014-2015 (Spring 2015)

**CLO Status:** Active

Means of Assessment			
Means of Assessment	Expected Student Performance	Notes	Active
Explain Engine computer controlled system operating principles and analyze cause and effect involving engine computer control unit problems.	70% of the students assessed will perform at the proficiency level.		Yes
<b>Signature assignment:</b> Final Exam			

### Means of Assessment

Means of Assessment	Expected Student Performance	Notes	Active
Service electronic spark advance components, Service idle speed control components, Check and clear diagnostic codes. <b>Signature assignment:</b> Practical Application Skill Test	70% of the students assessed will perform at the proficiency level.		Yes

### Results

Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
Final Exam - 06/03/2015 - 81.8% of the students assessed performed at the proficiency level. <b>Expected Student Performance Met:</b> Yes <b>Related Documents:</b> <a href="#">AM-225 final exam knowledge spring 2015.pdf</a>	06/10/2015 - Actual results: 9 out of 11 students are proficient; 9 are competent and none is highly competent. Therefore, 81.8% of the students assessed passed the knowledge test.  Analyzed results: Logically, the knowledge test result was good, but none of students reached the highly competent level.  Recommendations: CLO #3 must be changed into a comprehensive learning outcome that will equip the students to Analyze Diagnostic Trouble Code: a diagnostic code produce by PCM will be used to monitor engine failure.  Action Plan: CLO #3 must be revised before September 2015. Analyze Diagnostic Trouble Code will be the new description for CLO #3. 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-225 4.) Set-up film viewing 5.) Conduct in-house Skills Olympic		2014 - 2015 (Spring 2015)
Practical Application Skill Test - 06/03/2015 - 54.5% of the students assessed performed at the proficiency level. <b>Expected Student Performance Met:</b> Yes <b>Related Documents:</b>	06/10/2015 - Actual results: 6 out of 11 students are proficient; 6 are competent and none is highly competent. Therefore, 54.5% of the students assessed passed the skills assessment.		2014 - 2015 (Spring 2015)

Results			
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
<a href="#">AM-225 skills assessment spring 2015.pdf</a>	<p>Analyzed results: Students are lack of practice in servicing engine computer control unit for we only have one mock-up.</p> <p>Recommendations: CLO #3 must be changed into a comprehensive learning outcome that will equip the students to Analyze Diagnostic Trouble Code: a diagnostic code produce by PCM will be used to monitor engine failure.</p> <p>Action Plan: CLO #3 must be revised before September 2015. Analyze Diagnostic Trouble Code will be the new description for CLO #3. 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-225 4.) Set-up film viewing 5.) Conduct in-house Skills Olympic</p>		
<p>Practical Application Skill Test - 07/08/2014 - 100% of the students assessed performed at the proficiency level. <b>Expected Student Performance Met:</b> Yes <b>Related Documents:</b> <a href="#">AM225 skills.pdf</a></p>	07/08/2014 - No action needed at this time.		2013 - 2014 (Spring 2014)
<p>Final Exam - 07/08/2014 - 100% of the students assessed performed at the proficiency level. <b>Expected Student Performance Met:</b> Yes <b>Related Documents:</b> <a href="#">AM225 final exam.pdf</a></p>	07/08/2014 - No action needed at this time.		2013 - 2014 (Spring 2014)

**CLO: AM 225 - Automatic Computer Control System: CLO 4**

Service Emission Control System

CLO Assessment Cycle: 2014-2015 (Spring 2015)

## Means of Assessment

Means of Assessment	Expected Student Performance	Notes	Active
Explain the importance of Positive Crankcase Ventilation and analyze cause and effect involving positive crankcase ventilation problems.	70% of the students assessed will perform at the proficiency level.		Yes
<b>Signature assignment:</b> Final Exam			
Service positive crankcase ventilation valve, Service PCV pipe, Measure blow-by gases, Service EGR valve, Service EGR actuator modulator, Service EGR sensor, Check EGR sensor, Service charcoal canister, Service evaporation emission hoses, and Service evaporation emission control valves.	70% of the students assessed will perform at the proficiency level.		Yes
<b>Signature assignment:</b> Practical Application Skill Test			

## Results

Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
Final Exam - 06/03/2015 - 81.8% of the students assessed performed at the proficiency level. <b>Expected Student Performance Met:</b> Yes <b>Related Documents:</b> <a href="#">AM-225 final exam knowledge spring 2015.pdf</a>	06/10/2015 - Actual results: 9 out of 11 students are proficient; 9 are competent and none is highly competent. Therefore, 81.8% of the students assessed passed the knowledge test.  Analyzed results: The knowledge test result was good, but no students reached the level of highly competent.  Recommendations: 1.) Set-up film showing to help the students understand the principles of EMISSION CONTROL SYSTEM. 2.) Add repair manuals to help the students know the concepts and specifications of EMISSION CONTROL SYSTEM.  Action plan: 1.) Purchase repair manuals (e-copy and in print) before December 2015. 2.) Purchase a DVD movie that correlates to Troubleshooting Engine Mechanical Failure 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		2014 - 2015 (Spring 2015)



## Results

Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
	<p>approved by Federal Work study will be employed in Auto Club).</p> <p>3.) Set-up work stations for all the CLOs of AM-225</p> <p>4.) Set-up film viewing</p> <p>5.) Conduct in-house Skills Olympic</p>		
<p>Practical Application Skill Test - 06/03/2015 - 100% of the students assessed performed at the proficiency level.</p> <p><b>Expected Student Performance Met:</b> Yes</p> <p><b>Related Documents:</b> <a href="#">AM-225 skills assessment spring 2015.pdf</a></p>	<p>06/10/2015 - Actual results: 11 out of 11 students are proficient; 6 are competent and 5 are highly competent. Therefore, 100% of the students assessed passed the skills assessment.</p> <p>Analyzed results: The result of skills assessment was good, but the highly competent students are less than the number of competent students.</p> <p>Recommendations: Course success can be improved by;</p> <p>1.) Adding more mock-ups for CLO #4 (to have more laboratory hands-on practice and to enhance servicing technique).</p> <p>2.) Forming repair shop (to enhance servicing technique and gain more skills and experience.</p> <p>3.) Adding repair manuals (for reference in specification of EMISSION CONTROL SYSTEM and components).</p> <p>4.) Expanding classrooms areas (to create conducive learning environment; EMISSION CONTROL SYSTEM parts and components will be displayed with name tags, and specifications.</p> <p>5.) Video every laboratory activities to review their laboratory performance and techniques.</p> <p>Action Plan: 1.) Produce additional mock-ups, before December 2015.</p> <p>2.) Establish repair shop (a business repair shop) before December 2015.</p> <p>3.) Purchase repair manuals (e-copy and/or in-print) December 2015.</p> <p>4.) Renovate Classroom before December 2015.</p> <p>5.) Purchase video cam and automotive technology DVD movies before December 2015.</p> <p>Extended services offered; to produce more highly competent students in knowledge and skills for the next semester (spring 2016).</p> <p>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</p>		2014 - 2015 (Spring 2015)

Results			
Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
	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-225 4.) Set-up film viewing 5.) Conduct in-house Skills Olympic		
Practical Application Skill Test - 07/08/2014 - 100% of the students assessed performed at the proficiency level. <b>Expected Student Performance Met:</b> Yes <b>Related Documents:</b> <a href="#">AM225 skills.pdf</a>	07/08/2014 - No action needed at this time.		2013 - 2014 (Spring 2014)
Final Exam - 07/08/2014 - 100% of the students assessed performed at the proficiency level. <b>Expected Student Performance Met:</b> Yes <b>Related Documents:</b> <a href="#">AM225 final exam.pdf</a>	07/08/2014 - No action needed at this time.		2013 - 2014 (Spring 2014)

**CLO: AM 225 - Automatic Computer Control System: CLO 5**

Service Computerized Controlled Air Induction System

**CLO Assessment Cycle:** 2014-2015 (Spring 2015)

**CLO Status:** Active

Means of Assessment			
Means of Assessment	Expected Student Performance	Notes	Active
Differentiate the classification of computerized controlled Air Induction System, and explain their operating principles, analyze cause and effect involving computerized controlled air induction system problems.	70% of the students assessed will perform at the proficiency level.		Yes
<b>Signature assignment:</b> Final Exam			

### Means of Assessment

Means of Assessment	Expected Student Performance	Notes	Active
Service positive crankcase ventilation valve, Service PCV pipe, Measure blow-by gases, Service EGR valve, Service EGR actuator modulator, Service EGR sensor, Check EGR sensor, Service charcoal canister, Service evaporation emission hoses, and Service evaporation emission control valves. <b>Signature assignment:</b> Practical Application Skill Test	70% of the students assessed will perform at the proficiency level.		Yes

### Results

Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
Final Exam - 06/03/2015 - 72.7% of the students assessed performed at the proficiency level. <b>Expected Student Performance Met:</b> Yes <b>Related Documents:</b> <a href="#">AM-225 final exam knowledge spring 2015.pdf</a>	06/10/2015 - Actual results: 8 out of 11 students are proficient; 5 are competent and 3 are highly competent. Therefore, 72.7% of the students assessed passed the knowledge test.  Analyzed results: The knowledge test result was good, but the highly competent students are less than the number of competent students.  Recommendations: CLO #5 must be changed into a comprehensive learning outcome that will equip the students to Analyze Live Data of OBD-2 (diagnostic tool). The data produced by PCM will correctly monitored by OBD-2.  Action Plan: CLO #5 must be revised before September 2015. Analyze Live Data will be the new description for CLO #5. 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 #5; 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-225 4.) Set-up film viewing 5.) Conduct in-house Skills Olympic		2014 - 2015 (Spring 2015)
Practical Application Skill Test - 06/03/2015 - 36.4% Of the students assessed performed at the proficiency level <b>Expected Student Performance Met:</b> Yes	06/10/2015 - Actual results: 4 out of 11 students are proficient; 3 are competent and 1 is highly competent. Therefore, 36.4% of the students assessed passed the skills assessment.		2014 - 2015 (Spring 2015)

**Results**

Summary of Data Collected	Use of Results	Follow-Up	Semester Assessed
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**Related Documents:**

[AM-225 skills assessment spring 2015.pdf](#)

Analyzed results:  
The students need more hands-on practice.

Recommendations:  
CLO #5 must be changed into a comprehensive learning outcome that will equip the students to Analyze Live Data of OBD-2 (diagnostic tool). The data produced by PCM will correctly monitored by OBD-2.

Action Plan:  
CLO #5 must be revised before September 2015. Analyze Live Data will be the new description for CLO #5.  
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 #5; 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-225  
4.) Set-up film viewing  
5.) Conduct in-house Skills Olympic

<p>Practical Application Skill Test - 07/08/2014 - 50% of the students assessed performed at the proficiency level. <b>Expected Student Performance Met:</b> No <b>Related Documents:</b> <a href="#">AM225 skills.pdf</a></p>	<p>07/08/2014 - A video camcorder, a flat screen television and DVD player should be purchased to accommodate film viewing during laboratory and to record some laboratory performance of each student. Mock-ups could also help the students to improve their laboratory performance. If Mock-ups could be purchased, or if student were allowed to accept car repairs, this would also greatly help the students to improve their laboratory performance in areas where they demonstrated poor skill application.</p>	<p>2013 - 2014 (Spring 2014)</p>
<p>Final Exam - 07/08/2014 - 50% of the students assessed performed at the proficiency level. <b>Expected Student Performance Met:</b> No <b>Related Documents:</b> <a href="#">AM225 final exam.pdf</a></p>	<p>07/08/2014 - Recommend that students be given a task to do research to better understand the principles of operation and function of each part and component. Video clips should be viewed during laboratory time to help students familiarize part names, sequence and specifications.</p>	<p>2013 - 2014 (Spring 2014)</p>