



“We Strive to Guarantee Quality and Excellence”

Palau Community College is an accessible public educational institution helping to meet the technical, academic, cultural, social, and economic needs of students and communities by promoting learning opportunities and developing personal excellence.

**Instructional Programs  
(Academic Degree & Certificate Programs)**

**Three Year Program Review**


**Degree / Certificate Program**

**GENERAL ELECTRONICS TECHNOLOGY (GE)**


**Period of Three Year Review**

**Fall 2013 to Summer 2016**


Program Review Completed By:

Name	Title	Signature	Date
Joel G. Yabes	Associate Professor		1/31/17

Program Review Certified By:

Name	Title	Signature	Date
Robert Ramarui	Dean of the Academic Affairs		1/31/17

Program Review Received By: (Institutional Research & Evaluation Office)

Name	Title	Signature	Date
Ligaya Sara	Institutional Research Analyst		01/31/17

**Purpose:**

Program review at Palau Community College is a process that provides an extensive evaluation of academic and non-academic programs on a three year basis. The results of yearly assessments (using the FAMED process) are compiled into the one three year review cycle.

The purpose of program review is to evaluate program sufficiency to allow definite strategies to be developed for major revisions, to provide information for consideration when decisions are made, and to develop recommendations to improve institutional effectiveness.

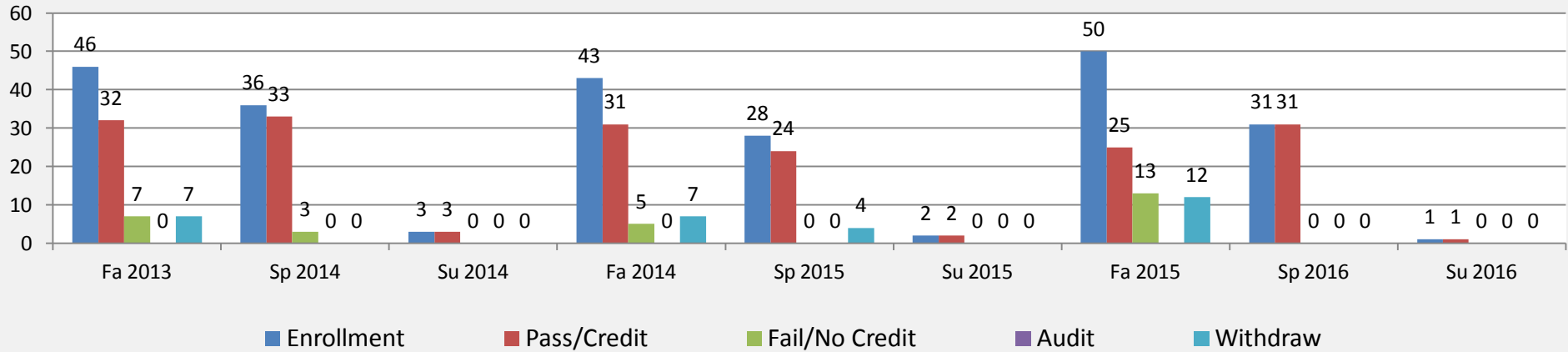
**Instructions for completing Program Review:**

1. Type your text into the boxes. The text boxes will expand to accommodate the amount of text spaces you need.
2. Individual instructions are included before each section.
3. Submit completed and signed Program Review in both hard copy and electronic copy format to the Institutional Research & Evaluation Office.
4. Required supporting documents must be included during submission.
  - Appendix A: CLOs – PLOs – ILOs Mapping (e-copy only)
  - Appendix B: Most Approved CLOs and PLOs (e-copy only)
  - Appendix C: FAMED grid of all course assessment data within review cycle (e-copy only)
5. Be sure to keep both hard and electronic copies for your file.

Note: Other college plans may include the 15-Year Institutional Master Plan, the 5-Year Technology Plan, Institutional Learning Outcomes, Institutional-Set Standards for Student Achievement, or other plans, such as an approved department plan or committee plan.

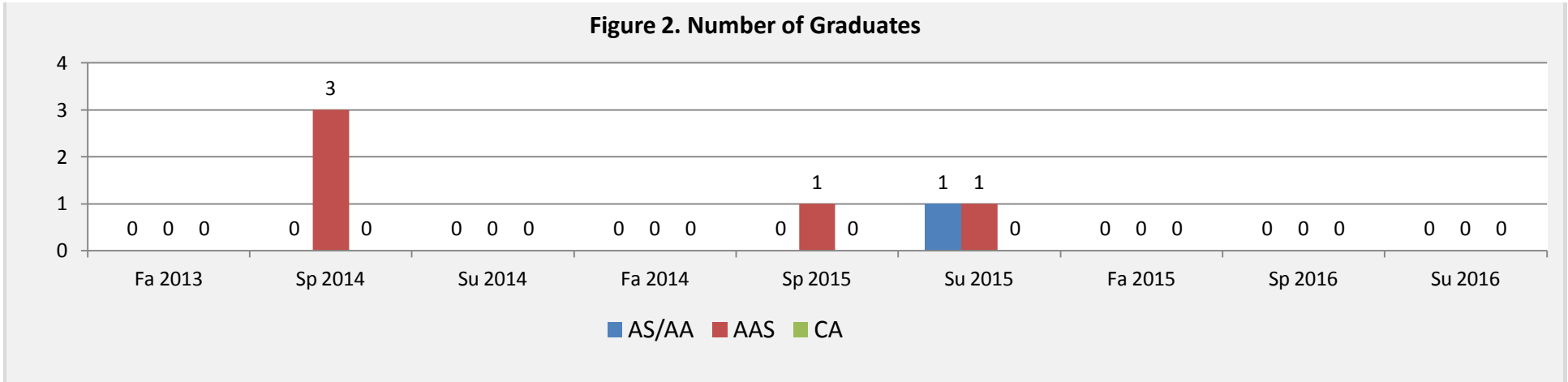
1.0 Program Data

Figure 1. Number of Students Enrolled, Pass/Credit, Fail/No Credit, Audit and Withdraw



**Brief summary of data**

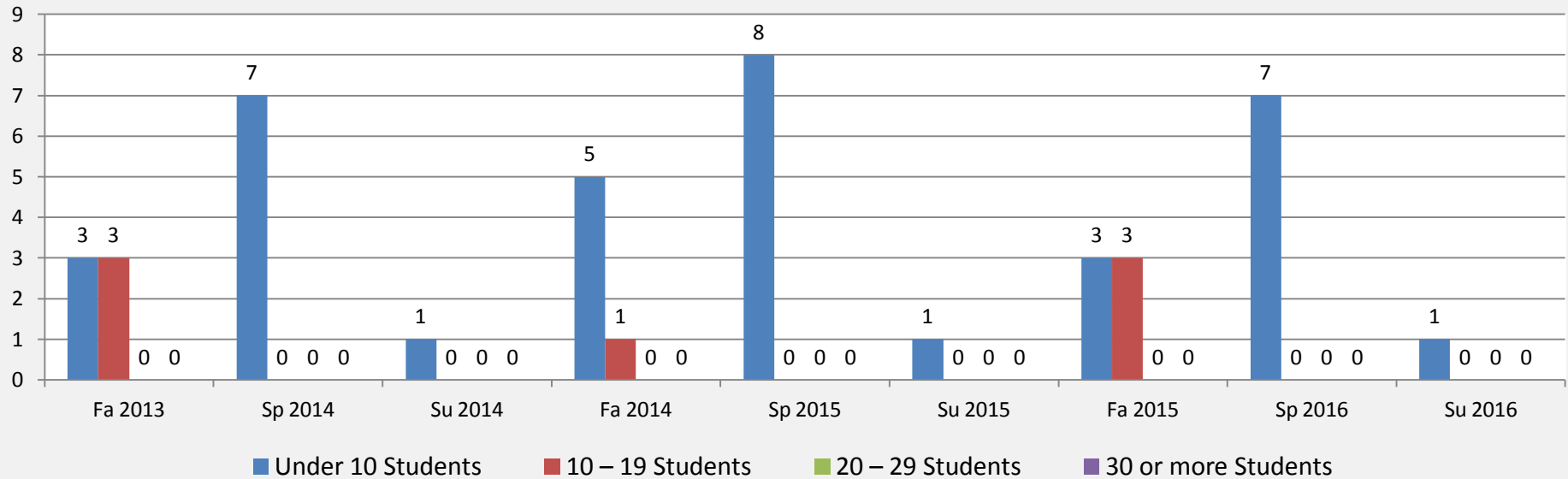
The table above (tabular view of Figure 1) represents the total student enrollments in all courses as well as the number of students who passed, failed, audited, and withdrew from the courses. Comparing the passing, failing, and withdrawal rates of students shows that more students successfully passed GE courses.



**Brief summary of data**

The table above (tabular view of Figure 2) illustrates the number of students who have successfully completed and received an Associate of Science degree and Associate of Applied Science degree in the GE. Comparing the number of graduate between AS and AAS, there are more graduate of AAS than AS degree from fall 2013 to Summer 2016.

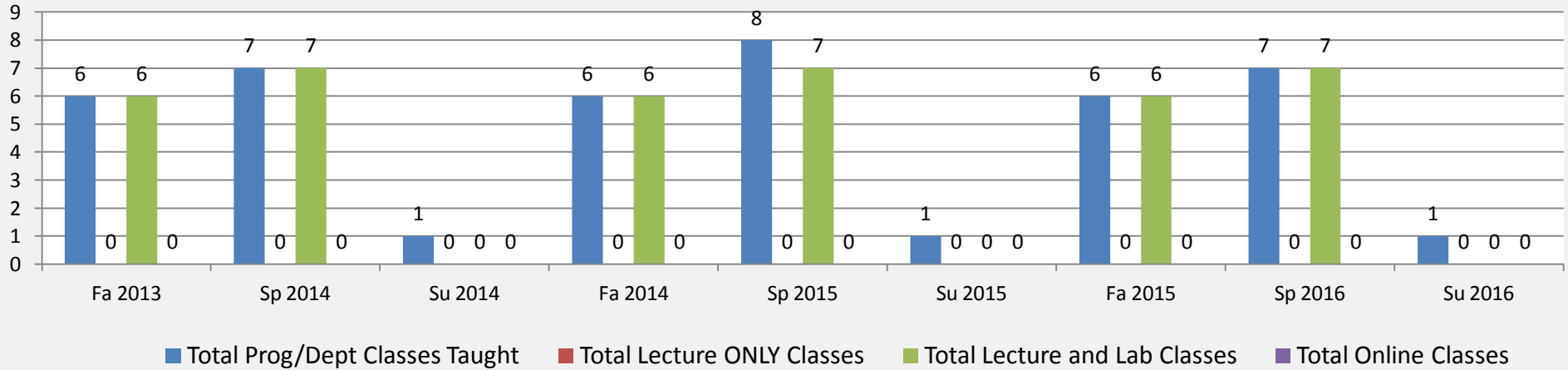
**Figure 3. Number of Classes Based on Student Enrollment**



**Brief summary of data**

The table above (tabular view of Figure 3) shows the average class size for GE classes. As shown in the above table 77% of the classes have under 10 students and only 33% of the classes have between 10 -19 students. Every fall semesters 50% of the classes increased it sized due to the enrollment of freshmen and in the spring semester sized was reduced due to student failed in their classes and some withdrew from their classes.

Figure 4. Class Offering

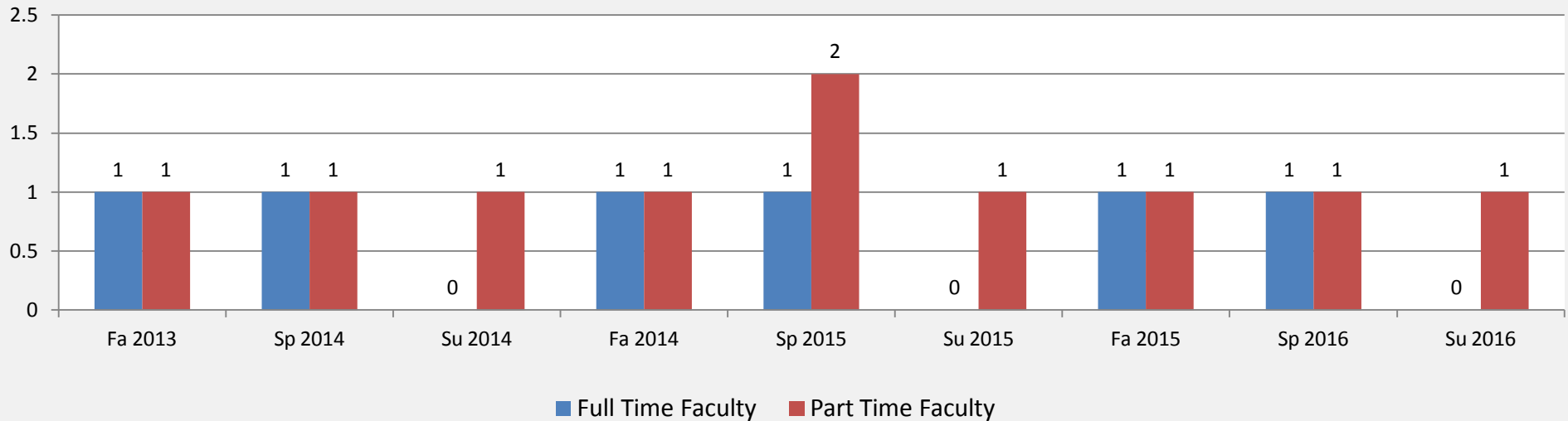


**Brief summary of data**

The table above (tabular view of Figure 4) illustrates the number and type of GE classes offered. All offered classes in GE program were lecture and lab courses except for the internship which is a pure Lab.

The lecture and lab courses were made for the student to easily learn and develop their skills by means of practically applying the concept, principles, and theories they learned in the class to the actual field.

Figure 5. Faculty Head Count



**Brief summary of data**

The table above (tabular view of Figure 5) represents the number of full time and part time faculty that teaches GE classes. Currently, there is only one full time GE faculty and two regular part time instructors in the program. This fulltime faculty heads the General Electronics Program as well as teaches some GE courses for GE majors. The two regular part time instructors teach other courses in the program.

**Table 1: Faculty to Class Size Ratio (Program Headcount)**

Ratio	Fall 2013	Spring 2014	Summer 2014	Fall 2014	Spring 2015	Summer 2015	Fall 2015	Spring 2016	Summer 2016
Full Time Faculty (F : S)	1:12	1:25	0:0	1:24	1:19	0:0	1:27	1:19	0:0
Part Time Faculty (F : S)	1:34	1:11	1:3	1:19	1:9	1:2	1:23	1:12	1:1

**Brief summary of data**

The table above (Table 1. Faculty-Class Size Ratio) shows the ratio of faculty to class size. The average ratio of 1 faculty to class size ranges from as low as 1 faculty to 12 students (1:12) to as high as 1 faculty to 34 students (1:34) during Fall semester. During spring as low as 1 faculty to 9 students (1:9) to as high as 1 faculty to 25 students (1:25).



## II. Student Learning and Curriculum

How many program courses are there? (refer to catalog or recent approval by CPC)	% of courses with Identified CLOs	List all revised program courses outlines or proposed new courses that received CPC approval within this review cycle	% of PLOs aligned with ILOs
14	100%	GE113 GE114 GE115 *GE116 GE124 GE126 *GE128 *GE212 GE214 GE215 GE217 GE222 GE223 GE225	100%
*There are a total of 14 GE courses.	*All GE courses have CLOs. Such CLOs are currently being used to assess the courses	*Note: All GE outlines were updated and submitted to CPC. All have been approved and implementation begins this Fall semester 2016	*All CLOs have been aligned with PLOs and all PLOs have been aligned with ILOs.

Provide Summary of Student Learning and Curriculum in the box below. Summary should include reasons for course revisions and course proposals.

Two of the previous program courses GE 125 and GE 127 were deleted in order to accommodate two new program courses GE128 –Robotic1 and GE212-Robotic 2. Critical components of the deleted courses on this program were integrated to the other related courses to sustain and enforce the program learning outcomes.

In line with PCC Mission and Institutional Learning Objectives, these new proposed Robotic courses aim to reinforce the GE program learning outcomes by means of updating and providing the GE students the knowledge and skills in Robotic Technology used by many industries and institutions today. Robot performs various tasks such as; assembly, delivery, detection, and surveillance that create accuracy, wider view, and eliminate risk to human labor force. It is undeniable that this technology is emerging today that we need to take a look and include to our Program to make our GE student more skillful, sufficient, and reliable in providing services to their prospective company. This course will develop student's critical thinking to solve problems, provides technical skills and knowledge in wirings, assembly, programming, sensors, interfacing, and control. Students will also experience an actual ROV operation with under water, land, and air mission.

Mathematics for Electronics and Electrical ( ET-103 ) is proposed for the replacement of Technical Mathematics 100 (MA100) in AAS degree and added as other requirements in AS degree, with a total of 62 credit units in AAS degree and 65 credit units in AS degree.

### III. Course Assessment Data

Year 1: School Year 2013-2014

Semester Assessed	Course Assessed	CLO - PLO Mapping	Results of Assessments
Fall 2013	GE113	CLO 1,2,3,4,5,6 –PLO4	<p>CLO's 2, 3 and 5 were not achieved due to lack of supplies and materials.</p> <p>The requested supplies and materials in this semester were not procured and I was not given a reason for that decision.</p> <p>PLAN OF ACTION / ADDITIONAL COMMENTS</p> <p>Propose for a course deletion since we cannot afford to buy supplies and materials to run this course.</p> <p>Note: 4 out of 11 enrolled students did able to finish the assessment, 2 of them withdrew and the other 2 stop showing up after midterm</p>
	GE114	CLO 1,2,3,4 –PLO1 CLO 1,2,3,4 –PLO2 CLO 1,2,3,4 –PLO3 CLO 1,2,3,4 – PLO4	<p>CLO 2 and CLO 4 were not achieved due to lack of materials to deliver the course and to conduct the assessment.</p> <p>PLAN OF ACTION / ADDITIONAL COMMENTS</p> <p>In Fall 2011 assessment, I put a comment right here that we are running out of materials and it will jeopardize the achievement of course learning outcome and I reiterated similar comment on Spring 2012 assessment.</p> <p>This semester our request was turned down again!</p> <p>Note: 2 out of 13 enrolled students withdrew the course.</p>
	GE115	CLO 1,2,3,4,5- PLO1 CLO 1,2,3,4,5 –PLO2 CLO 1,2,3,4,5 – PLO3 CLO 1,2,3,4,5 – PLO4	<p>All of the student who participated on this assessment achieved proficiency level. In CLO1,CLO3, and CLO5.</p> <p>However, CLO2, was not assessed properly due to materials were not purchased.</p> <p><b>Recommendations:</b></p> <p>Student should be given more time to practice oscilloscope reading. To increase proficiency level in CLO4.</p> <p>Student should always be advised and encourage to attend the class regularly.</p> <p>Purchase of consumable materials. In off Island should be supported to give student more opportunity to practice their skill in soldering and PCB designing.</p>

			Student's personal tools and instruments should be made available on the store before the classes begin and require them to buy it. This will help them to practice their skills even outside the class room
	GE127	CLO 1,2,3,4 – PLO3	100% of the student who participated on this assessment achieved proficiency level. All CLOs are all doing fine with the student and no recommendations for improvement. However, Purchase of Instructional Materials and equipment should be given priority to maintain the good output of the course.
	GE214	CLO 1 – PLO1 CLO 1,2,3,4 – PLO2 CLO 4 – PLO4	100% of the student who participated on this assessment achieved proficiency level All CLOs are doing fine with the student and no recommendations for improvement. However, Purchase of Instructional Materials and equipment should be given priority to maintain the good output of the course.
	GE215	CLO 1,2,3,4,5- PLO2 CLO 1,2,3,5- PLO4	100% of the student who participated on this assessment achieved proficiency level. All CLOs are all doing fine with the student and no recommendations for improvement. However, CLO1 must be given attention in order to increase the number of student who can achieve proficiency level
Spring 2014			
	GE124	CLO3 – PLO1 CLO 1,2,3,4,5,6- PLO2 CLO 1,2,3,4,5,6- PLO3 CLO 2 – PLO4	CLO1 to CLO3 are doing fine with the student and no recommendations for improvement. However, lack of training materials, tools and instruments may lose the motivation of the students to continue the training.  None of the student achieved proficiency level in CLO4-CLO6 due to non availability of materials to practice student skills. I requested the materials on DEC 21, 2013 and the materials arrive only on April 21, 2014.  Therefore: the following recommendation should be made.  1. Always advice the student to attend classes regularly.  2. Training materials, tools and instruments must be provided  3. Remind the administration for their support to fast track the purchase of the needed training materials by the student to achieved level of success s
	GE125	CLO 1,2 ,4 – PLO1 CLO 1,2,3 – PLO2 CLO 1,2,3,4,5 – PLO3 CLO 1 – PLO4	Based on the faculty discussion about the compiled result, the course assessment achieved the criteria for success therefore no further changes needed at this time.

			PLAN OF ACTION / ADDITIONAL COMMENTS
			<p>Continue the usual administrative support to ensure students' success.</p>
	GE126	<p>CLO 1,3 – PLO1 CLO 1,2,3,4 - PLO2 CLO 4,5 – PLO4</p>	<p>CLO1,CLO3 and CLO5 are doing fine with the student and no recommendations for improvement. However, lack of training materials, tools and instruments may lose the motivation of the students to continue the training.</p> <p>None of the student achieved proficiency level in CLO2 and CLO4 due to non availability of materials to practice student skills.</p> <p>I requested the materials on DEC 21, 2013 and the materials arrive only on April 21, 2014.</p> <p>Therefore: the following recommendation should be made.</p> <ol style="list-style-type: none"> <li>1. Always advice the student to attend classes regularly.</li> <li>2. Training materials, tools and instruments must be provided</li> <li>3. Remind the administration for their support to fast track the purchase of the needed training materials by the student to achieved level of success s</li> </ol>
	GE216	<p>CLO1 – PLO1 CLO 2 _ PLO2 CLO1,2,3,4 - PLO3</p>	<p>CLO3 to CLO4 are doing fine with the student and no recommendations for improvement. However, lack of training materials, tools and instruments may lose the motivation of the students to continue the training.</p> <p>None of the student achieved proficiency level in CLO1and CLO2due to non availability of materials to practice student skills. I requested the materials on DEC 21, 2013 and the materials arrive only on April 21, 2014.</p> <p>Therefore: the following recommendation should be made.</p> <ol style="list-style-type: none"> <li>1. Always advice the student to attend classes regularly.</li> <li>2. Training materials, tools and instruments must be provided</li> </ol>

			3. Remind the administration for their support to fast track the purchase of the needed training materials by the student to achieved level of success s
	GE217	CLO 1,2,3,4 – PLO3	<p>CLO3, CLO4 and CLO6 are doing fine with the student and no recommendations for improvement. However, lack of training materials, tools and instruments may lose the motivation of the students to continue the training.</p> <p>None of the student achieved proficiency level in CLO1, CLO2 and CLO5 due to non availability of materials to practice student skills. I requested the materials on DEC 21, 2013 and the materials arrive only on April 21, 2014.</p> <p>Therefore: the following recommendation should be made.</p> <ol style="list-style-type: none"> <li>1. Always advice the student to attend classes regularly.</li> <li>2. Training materials, tools and instruments must be provided</li> <li>3. Remind the administration for their support to fast track the purchase of the needed training materials by the student to achieved level of success s</li> </ol>
	GE222	CLO 1,2,3,4 - PLO2 CLO 4 – PLO4	<p>100% of the student who participated on this assessment achieved proficiency level in all CLOs' of this course. No further improvement needed to be made</p> <p>The support of the administration to fast track the purchase of the needed materials for the training contributed big factor on the success of the course training</p>
	GE223	CLO 1,2,3 – PLO4	<p>Based on the faculty discussion about the compiled result, the course assessment achieved the criteria for success therefore no further changes needed at this time.</p> <p><b>PLAN OF ACTION / ADDITIONAL COMMENTS</b></p> <p>Continue the usual administrative support to ensure students' success.</p> <p>Note: 3 out of 10 enrolled students had withdrawn the course.</p>
Summer 2014	GE225	PLO1,2,3,4	

**Year 2: School Year 2014-2015**

Semester Assessed	Course Assessed	CLO - PLO Mapping	Results of Assessments
Fall 2014	GE113	CLO 1,2,3,4,5,6 –PLO4	<p>Based on the faculty discussion about the compiled result, the course assessment achieved the criteria for success except for CLO2 which was cause by student missing relevant practical exercises due to absenteeism.</p> <p>PLAN OF ACTION / ADDITIONAL COMMENTS Encourage students to provide extra time to make-up their missed practical exercises.</p> <p>Continue the usual administrative support to ensure students' success.</p> <p>Note: 3 out of 10 enrolled students had withdrawn the course.</p>
	GE114	CLO 1,2,3,4 –PLO1 CLO 1,2,3,4 –PLO2 CLO 1,2,3,4 –PLO3 CLO 1,2,3,4 – PLO4	<p>Based on the faculty discussion about the compiled result, CLO1 and CLO3 achieved below average rating. Through faculty discussion, it is found out that the cause would be student's readiness to take technology course. Students are struggling to cope with activities due to poor science and mathematical foundation.</p> <p>PLAN OF ACTION / ADDITIONAL COMMENTS Enhance the entrance examination and screen the students thoroughly and find out if their foundation suits to take technology courses.</p> <p>Continue the usual administrative support to ensure students' success.</p> <p>Note: 3 out of 9 enrolled students had withdrawn the course</p>
	GE115	CLO 1,2,3,4,5- PLO1 CLO 1,2,3,4,5 –PLO2 CLO 1,2,3,4,5 – PLO3 CLO 1,2,3,4,5 – PLO4	When the recommended action plan in fall2014 were implemented all student achieved proficiency level in all CLOS, therefore no action needed at this time.
	GE127	CLO 1,2,3,4 – PLO3	100% of the student participated in this assessment achieved proficiency level in all CLOS, therefore no action needed at this time.
	GE214	CLO 1 – PLO1 CLO 1,2,3,4 – PLO2 CLO 4 – PLO4	100% of the student participated in this assessment achieved proficiency level in all CLOS, therefore no action needed at this time.
	GE215	CLO 1,2,3,4,5- PLO2 CLO 1,2,3,5- PLO4	When the recommended action plan in fall2014 were implemented all student achieved proficiency level in all CLOS, therefore no action needed at this time.

Spring 2015			
	GE124	CLO3 – PLO1 CLO 1,2,3,4,5,6- PLO2 CLO 1,2,3,4,5,6- PLO3 CLO 2 – PLO4	When action plan in previous assessment in GE 124 ( Spring 2014) was implemented, the students' performance in CLO4,CLO5 and CLO6 were improved to proficiency level., therefore no further action needed at this time just continue to implement the previous recommendations.
	GE125	CLO 1,2 ,4 – PLO1 CLO 1,2,3 – PLO2 CLO 1,2,3,4,5 – PLO3 CLO 1 – PLO4	Based on the faculty discussion about the compiled result, the course assessment achieved all the criteria for success and therefore no further actions need to be done to improve the course at this time.  PLAN OF ACTION / ADDITIONAL COMMENTS  Continue the usual administrative support to ensure students' success
	GE126	CLO 1,3 – PLO1 CLO 1,2,3,4 - PLO2 CLO 4,5 – PLO4	When action plan in previous assessment in GE 126 ( Spring 2014) was implemented, the students' performance in CLO2 and CLO4 were improved to proficiency level, therefore no further action needed at this time just continue to implement the previous recommendations.
	GE216	CLO1 – PLO1 CLO 2 _ PLO2 CLO1,2,3,4 - PLO3	When action plan in previous assessment in GE216 ( Spring 2014) was implemented, the students' performance in CLO1 and CLO2 were improved to proficiency level, therefore no further action needed at this time just continue to implement the previous recommendations.
	GE217	CLO 1,2,3,4 – PLO3	When action plan in previous assessment in GE217 ( Spring 2014) was implemented, the students' performance in CLO1, CLO2 and CLO5 were improved to proficiency level, therefore no further action needed at this time just continue to implement the previous recommendations.
	GE222	CLO 1,2,3,4 - PLO2 CLO 4 – PLO4	In spring 2014 to spring 2015 100% of the students who performed at the proficiency level demonstrate the ability to troubleshoot and repair video equipment. Therefore, no further action needed at this time
	GE223	CLO 1,2,3 – PLO4	Based on the faculty discussion about the compiled result, the course assessment achieved all the criteria for success and therefore no further actions need to be done to improve the course at this time.  PLAN OF ACTION / ADDITIONAL COMMENTS  Continue the usual administrative support to ensure students' success.  Note: 1 out of 3 enrolled students withdrew the class.

	GE225	PLO1,2,3,4	<p>The CLOs were revised last fall and cut from 4 to only 2. Added were proper work habits as CLO1. CLO 2 - 4 were combined into only CLO 2 so that the supervisor will list the actual tasks completed during the internship period.</p> <p>It is more appropriate for supervisors to use for CLO 2 than the rating sheet previously used and clearly showed that the intern performed well at the actual tasks that were able to be assigned at this location. This is the first time that GE225 has been entered into Tracdat as there have not been any recent graduates in the last three semesters.</p>
Summer 2015	GE225	PLO1,2,3,4	Two students were enrolled in this course and both were assessed. No change in expected student performance from spring 2015 to summer 2015. Both students this summer performed at the proficiency level with the tasks assigned to them.

### Year 3: School Year 2015-2016

Semester Assessed	Course Assessed	CLO - PLO Mapping	Results of Assessments
Fall 2015	GE113	CLO 1,2,3,4,5,6 –PLO4	<p>The expected student performance was met although the result of the previous assessment was a little bit better than this time. The program will continue to offer the course, assess the course and make changes when necessary.</p> <p>PLAN OF ACTION / ADDITIONAL COMMENTS</p> <p>Continue the usual administrative support to ensure students' success.</p>
	GE114	CLO 1,2,3,4 –PLO1 CLO 1,2,3,4 –PLO2 CLO 1,2,3,4 –PLO3 CLO 1,2,3,4 – PLO4	<p>The expected student performance was met although the result of the previous assessment was a little bit better than this time. The program will continue to offer the course, assess the course and make changes when necessary.</p> <p>PLAN OF ACTION / ADDITIONAL COMMENTS</p> <p>Continue the usual administrative support to ensure students' success.</p>
	GE115	CLO 1,2,3,4,5- PLO1 CLO 1,2,3,4,5 –PLO2 CLO 1,2,3,4,5 – PLO3 CLO 1,2,3,4,5 – PLO4	From fall 2014 to fall2015 100% of the student assessed achieved proficiency level therefore no further action needed at this time just continue to implement the previous recommendations.
	GE127	CLO 1,2,3,4 – PLO3	From fall 2014 to fall2015 100% of the student assessed achieved proficiency level therefore no further action needed at this time just continue to implement the previous recommendations.



	GE214	CLO 1 – PLO1 CLO 1,2,3,4 – PLO2 CLO 4 – PLO4	From fall 2014 to fall2015 100% of the student assessed achiever proficiency level therefore no further action needed at this time just continue to implement the previous recommendations.
	GE215	CLO 1,2,3,4,5- PLO2 CLO 1,2,3,5- PLO4	From fall 2014 to fall2015 100% of the student assessed achiever proficiency level therefore no further action needed at this time just continue to implement the previous recommendations.
Spring 2016			
	GE124	CLO3 – PLO1 CLO 1,2,3,4,5,6- PLO2 CLO 1,2,3,4,5,6- PLO3 CLO 2 – PLO4	From spring 2015 to Spring 2016 100% of the students performed at the proficiency level demonstrated the ability to assemble and manufacture electronic circuit, troubleshoot and Repair Power Supply circuit, design and Construct an amplifier circuit, to troubleshoot and repair amplifier circuit, troubleshoot and repair frequency generator circuit, troubleshoot and repair signal processing circuit, therefore no action needed at this time .
	GE125	CLO 1,2 ,4 – PLO1 CLO 1,2,3 – PLO2 CLO 1,2,3,4,5 – PLO3 CLO 1 – PLO4	The criteria for success are achieved with the same rating compared to the last assessment conducted in Spring 2015. Therefore, there is no action needed to improve the course at this time. We will continue to offer and assess the course and do some improvement when necessary.  PLAN OF ACTION / ADDITIONAL COMMENTS  Continue the usual administrative support to ensure students' success.
	GE126	CLO 1,3 – PLO1 CLO 1,2,3,4 - PLO2 CLO 4,5 – PLO4	From spring 2015 to Spring 2016 100% of the students performed at the proficiency level demonstrated the ability to assemble the AM/FM radio transmitter circuit, troubleshoot and repair the AM/FM radio transmitter circuit, to Assemble the AM/FM radio receiver circuit, troubleshoot and repair the AM/FM radio receiver circuit, Splice and Connect house hold telephone and LAN cable, therefore no action needed at this time
	GE216	CLO1 – PLO1 CLO 2 _ PLO2 CLO1,2,3,4 - PLO3	From spring 2015 to Spring 2016 100% of the students performed at the proficiency level demonstrated the ability to assemble a microcontroller circuit, troubleshoot and repair a microcontroller circuit, develop programs for a microcontroller circuit, interface Input/Output devices to microcontroller Circuit., therefore no action needed at this time
	GE217	CLO 1,2,3,4 – PLO3	From spring 2015 to Spring 2016 100% of the students performed at the proficiency level demonstrated the ability to diagnose and repair problems of interface driver circuit and controller

			circuit, diagnose and repair problems of actuators and Input/Output devices, to Setup and configure the robot arm to the PC controller, Develop programs to run the robot arm, Setup and configure the PLC device, develop PLC Programs, therefore no action needed at this time.
	GE222	CLO 1,2,3,4 - PLO2 CLO 4 – PLO4	From spring 2015 to Spring 2016 100% of the students performed at the proficiency level demonstrated the ability to troubleshoot and repair VCR, troubleshoot and repair camcorder, troubleshoot and repair DVD player, troubleshoot and repair Plasma/LCD, therefore no action needed at this time.
	GE223	CLO 1,2,3 – PLO4	<p>The criteria for success are achieved with the same rating compared to the last assessment conducted in Spring 2015. Students are attending the class regularly and though the requested supplies and materials such as hard drive were not bought, we manage to deliver the course through donated old personal computers.</p> <p>We will try again this semester to request the necessary supplies and materials to deliver and assess the course effectively and efficiently.</p> <p>PLAN OF ACTION / ADDITIONAL COMMENTS</p> <p>Continue the usual administrative support to ensure students' success.</p>
Summer 2016	GE225	PLO1,2,3,4	<p>The data analysis shows that there was no change in performance from the last two times the course was offered (spring and summer 2015) compared to summer 2016. 100% of the students every semester reached the proficiency level.</p> <p>The revision of the CLOs to match each job site has been well received by the job site supervisors. No further revisions are needed at this time but the course will continue to be assessed each time it is offered and changes will be made when necessary.</p>

Provide Summary of Course Assessment Data in the box below. Summary should include how assessment results have led to improvement of course and program learning outcomes, student learning and achievement.

Upon analyzing the results and implementing the different recommendations of the faculty to improve the program courses, and with the constant support of the administration, more than 70% of the students assessed achieved proficiency level from fall 2013 to Spring 2016. See appendix D.

## IV. Program Learning Outcomes (PLOs) Assessment

### Program Learning Outcomes Assessment Results

List PLOs	Proficiency Level	Results of Assessments
GE PLO1	GE114-CLO 1,2,3,4- 72% GE115CLO 1,2,3,4,5-90% GE-124CLO3 – 100% GE125-CLO 1,2 ,4 – 100% GE126-CLO 1,3 – 100% GE214-CLO 1, - 100% GE216 - CLO 1, - 67% GE225 - CLO 1 – 67%	87% of the students assessed achieved the proficiency level in PLO #1. No action needed at this time.
GE PLO2	GE114 - CLO 1,2,3,4- 27% GE115- CLO 1,2,3,4,5 - 90% GE124 - CLO 1,2,3,4,5,6 -83% GE125 - CLO 1,2,3 – 100% GE126 - CLO 1,2,3,4 – 83% GE214 - CLO 1,2,3,4 – 100% GE215 - CLO 1,2,3,4 – 98% GE216 - CLO 2 – 67% GE222 - CLO 1,2,3,4 - 100% GE225 - CLO2 – 67%	86% of the students assessed achieved the proficiency level in PLO #2. No action needed at this time.
GE PLO3	GE114 –CLO 1,2,3,4 – 72% GE115 -CLO 1,2,3,4 - 88 % GE124 - CLO 1,2,3,4,5 - 93% GE125 - CLO 1,2,3,4,5,6 100% GE 127 – CLO 1,2,3,4 – 100% GE216 - CLO1,2,3,4 – 83% GE217 - CLO 1,2,3,4,5,6– 83% GE225 - CLO3 67%	86% of the students assessed achieved the proficiency level in PLO #3. No action needed at this time.
GE PLO4	GE113 - CLO 1,2,3,4,5,6 -74% GE114 - CLO 1,2,3,4 - 72% GE115 - CLO 1,2,3,4,5 – 90% GE124 - CLO 2 – 100% GE125 - CLO 1 – 100% GE126 - CLO 4,5 – 83% GE214 - CLO 4 – 100% GE215 - CLO 1,2,3,4 – 97% GE222 - CLO 4 – 100% GE223 - CLO 1,2,3 – 93% GE225 - CLO4 – 67%	89% of the students assessed achieved the proficiency level in PLO #4. No action needed at this time.

Provide Summary of Program Learning Outcomes Assessments in the box below. Summary should include analysis of this cycle with previous cycles; how assessment results have led to major decisions made to support the improvement of program's student learning and student achievement.

Comparing the results of program assessment of the previous cycles (fall2009 to spring2013) to current program learning outcomes assessments (fall2013 to spring 2016 on the above data) there is an evident average increase of 6% proficiency level achievement from PLO1 to PLO4. This means that the course learning outcomes from each PLO were improved.

## V. Evaluation of Previous Program Review Action Plan/s

Indicate the status of the previous program review action plans below. (Include all previous action plans.)

Action Plan Activity/Objectives	Status Complete/Ongoing/Incomplete	Updates of Action Plan/s (Report action plan individually.)
Review and update of course outlines	Completed	All program courses were updated and modified
Review and update course assessment document and process.	Completed	Course assessment tools/instruments were revised and updated
Professional development	None	None at this time
Request for two (2) additional shop room and one (1) stock room	Completed	Two newly constructed room and 1 storage room were provided
Purchase of Personal student Tools and material	On going	Purchase of tools and materials needed by the student for their training should be made early before the start of the class.
Purchase of addition training equipment and tools –	On going	Additional hand tools, Instruments, machines and equipment, such as ; Hand drills, Microcontroller, Quad copter, Security camera and laptop computer where purchased for instruction
Develop student work book per course	On going	Instructor's made printed materials were continually compiled to create work book for student.

Provide Summary of the Evaluation of Previous Program Review Action Plan/s in the box below. Summary should include what measurable outcomes were achieved due to the actions completed; were the completed action plans led to improvement of student learning and student achievement; and provide detailed explanation of action plans that are ongoing and plans that are incomplete.

When action plan in the previous cycle fall (fall2019 to spring 2013) were implemented like; review and update of course outlines, review and update course assessment document and process, and the construction for two (2) additional shop rooms and one (1) stock room made an improvement to student course learning outcomes. Students become more active and participative in learning due to conducive /healthy environment. (See the program learning assessment results.) The continuous and ongoing support of the administration for the purchase of personal student tools and material were also contributed to the increase in student proficiency level. The personal tools and materials of the students gave them opportunities to practice and develop more their skills not only inside the class room but also outside the campus. Training equipment gave students a hands on experience in proper handling, operation, and application of it.

## VI. Action Plans

Based on this program review results, describe the program action plan for the next three (3) academic years. Include necessary resources.

Action Plan Activity/Objectives	How will this action plan improve student learning outcomes? (CLO, PLO, ILO)	Needed Resources (if any)	Timeline
Review and update of course outlines	This plan ensures that all course outlines are up to date and that they are aligned with the CLOs, PLOs, and ILOs.	None	Summer 2019
Review and update course assessment document and process.	This plan ensures that learning outcomes on each course are properly assess and implemented	None	Summer 2019
Professional development	This plan ensures that GE faculty is always up to date in electronics technology and delivering up to date information and instructions to the student.	Funding to allow GE faculty attend trainings, workshops, and conferences in GE related topics.	Ongoing
Purchase of Shop/Laboratory tables and chairs	This plan is to ensure student quality training and secure them from any accident.	Funding to buy needed Shop/Laboratory tables and chairs	Summer 2019
Construction of shelves and student cabinet	This plan is to provide student conducive learning environment and safety.	Funding needed to construct shelves, and student cabinet.	Summer 2019
Purchase of Personal student Tools and material	This ensures that necessary tools and materials are available for students and faculty teaching GE courses.	Funding to buy personal tool and materials for student and be available at PCC store.	Before the start of Fall and Spring semester
Purchase of addition training equipment and tools –	To equalize the ratio of shop equipment per student in order to increase learning efficiency and instructions.	Funding to buy additional training equipment and tools for the GE shop	Ongoing
Develop student work book per course	This is to establish standard work activities of the student base on PLOs and CLOs.	Funding to buy needed printing materials and student work materials.	Summer 2019

Provide Summary of Action Plans in the box below. Summary should include program major strengths; program needs and any recommendations for improvements based on assessment results, data and/or other college major plans. The summary needs to indicate overall program needs that may require financial support from the institution.

The major strength of program are the following; 1. Qualified and competent faculty that delivers quality education and training to the students, they are well trained, well versed, have a long experience in teaching technology, 2. It provides students with hands-on trainings in electronics and develops their initiatives to be self-employed individuals. And 3. It has direct linkages to different cooperating agencies that provide actual training and work experiences to the students.

Although the program achieved high proficiency level on the leaning outcomes this must be maintained and continuously strive for more development, progress, increase in program enrollment, and more number of graduates.

Constant review of all course outlines, and assessment documents will ensure students to learn new and updated technology. Request for additional benches, shelves, closets, student personal tool, shop equipment, and material will encourage the students to study hard and finish their course. Sending faculty for training related to their field of teaching will boost their spirit in continuously helping and teaching their student to succeed in their chosen field of study.

## VII. Resource Requests

Itemize resource request below.

Type of Resource	Detailed Description	Estimated Amount Requested	Justification
Personnel	Not at this Time		
Facilities for Robotic and Industrial Class Room	Student Laboratory table Shelves, Closets and Chairs	\$20,000	The existing facilities inside the class room are not enough to accommodate the student need for their training. Shop tables, shelves, closets and chairs are important to make student safe and comfortable during their training.
Facilities for Consumer electronics and PC repair Class Room	Student Laboratory table Shelves, Closets and Chairs	\$20,000	
Facilities for Fabrication and electronics assembly room	Student Laboratory table Shelves, Closets and Chairs	\$20,000	
Equipment	Video training Equipment	\$4,000	Presently LCD/LED TV is newest technology and student are needs to learn how to repair this kind of TV.

			CCTV camera, Wireless video transmitter and Camera Recorder are all in the approved course outlines by CPC
Equipment	Audio Training Equipment	\$4,000	Service and repair of audio equipment such as Speaker, Amplifier, Audio Mixer, Microphone, and Audio Player are the CLOs needed by the student to become electronics technicians.
Equipment	Computer training Equipment	\$18,000	Computer is one of the most important and most frequently used kinds of equipment in our house and office. As electronic technician He/she must have skills in servicing and repairing it. This equipment is also needed in students training in Robotic programming and Programmable logic Controller programming .
Equipment	Industrial training Equipment	\$8,000	Service and Repair of Industrial training equipment such as motor controller, programmable logic controller, micro controller, sensors, Robotic, and other electrical devices must be learned by the student in order to be absorbed in industry as machine operator or technician.
Equipment	Electronic Communication Training Equipment	\$4,000	
Supplies	Consumable Training materials	\$5,000	Consumable training materials for General Electronics are highly needed to give student a hand on experience in designing electronics product, wiring and installing electronics equipment, Servicing and repairing consumer products, and Servicing and repairing computers.
Supplies	Shop Maintenance Materials	\$5000	Shop maintenance materials are needed to sustain conducive learning on the room, provide safety around the shop, and to maintain all equipment, tools and instruments always in good running conditions.

Supplies	Office Instruction Materials	\$1000	Office instruction and materials are important to aid instructor in teaching, conveying information, direction to student activities, keeping record of the students attendance and performance, and to organized student works/ activities.
Software	Computer OS	\$1000	License OS for new version of MS windows are highly needed for the computer training. It is a must that every computer that uses MS windows must be license
	Computer Utility Disk	\$1000	License Utility Disk is to provide software maintenance and hardware diagnostic capability. This software is important for technician to accurately determine the problem of computer and safely fix it.
Training	<ul style="list-style-type: none"> <li>• Robotic Training</li> <li>• LCD TV Repair Training</li> <li>• Radio Communication Training.</li> <li>• Industrial related Training</li> <li>• Computer Related Training</li> </ul>		<ul style="list-style-type: none"> <li>• Training in Robotic is the first priority of for faculty to update his skills in this new trend of technology</li> <li>• Faculty is in need to attend training in LCD/LED TV repair get fresh ideas and concept in repairing it.</li> <li>• Training in Radio communication is the 2<sup>nd</sup> priority needed by the faculty to strengthen student learning comes in this area.</li> <li>• Related training in industrial and computer is the 3<sup>rd</sup> priority needed by the faculty to strengthen the CLOs of the related courses in the program.</li> </ul>
Total		\$111,000.00	

Provide Summary of Resource Request in the box below. Summary should connect the resources requested to course, program and institutional learning outcomes assessment results and/or any other college major plans.

The requested facilities such as; shop tables, shelves, closets and chairs are important to make student safe and comfortable during their training. The requested supplies, materials, and equipment are important to develop the student's skills and knowledge on their field of study. Sending faculty to training will boost their morale and spirit to continuously help and teach their student.



- Appendix A: CLOs – PLOs – ILOs Mapping (See the attached file)
  
- Appendix B: Most Approved CLOs and PLOs (See the attached file)
  
- Appendix C: FAMED grid of all course assessment data within review cycle (See the attached file)