

*"We 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.

## Academic Program Three Year Review

### Instructional Department

#### Computer Science Department

### Period of Three Year Review

Fall 2012 – Summer 2015

Completed By: Suzette Garcia Hinojales Date: Feb 1, 2016  
Department Instructor

Department Chair: Suzette Garcia Hinojales Date: Feb. 1, 2016

Dean of Academic Affairs: Robert Ramarui Date: Feb. 1, 2016

IR Office: Ligaya Sara Jay 02-01-2016

## Department Review Narrative Summary

The narrative summary should include the following:

- Summary of the academic department purpose
- The relationship of department to the college Mission Statement

### 1.0 Summary of Department Data

- a. Figure 1 – Student Status
- b. Figure 2 – Class Information
- c. Figure 3 – Course Offering Information
- d. Figure 4 – Faculty Information
- e. Table 1 – Faculty Student Ratio Information

### 2.0 Summary of Student Learning and Curriculum

### 3.0 Course Assessment Data

- a. How has assessment of course-level student learning outcomes led to improvement in course-level student learning?

### 4.0 Program Learning Outcomes (PLOs) Assessment

### 5.0 Summary of Evaluation of Previous Goals/Activities from Previous Cycle (Figure 5)

- a. List actions identified in your last department review or any other related plan(s).
- b. What measurable outcomes were achieved due to the actions completed?
- c. Evaluate the success of the completed actions. Did the completed actions lead to improvement of student learning?
- d. What modifications do you plan to make to the department in the future to improve student learning?
- e. Update major changes/accomplishments since the last review.

### 6.0 Action Plan

#### Recommendations for Improvements

- a. Does the student assessment data indicate overall department needs that may require support from the institution? Define these observed needs supported by assessment data.

### 7.0 Summary of Resource Request (if any)

All resource requests should be tied to at least one of the following:

- A GE/institutional learning outcome
  - A course learning outcome
- a. What GE/ILO and/or CLO does this resource request address?
  - b. What will be the anticipated outcome if resource request is granted?
  - c. Describe the resource request in detail.

**Appendix A:** Department Learning Outcomes

**Appendix B:** Department Mapping

**Appendix C:** Signature Assignment

## **Computer Science Department Review**

### **Summary of the academic department purpose**

Computer Science Department is established with three courses which are Computer Literacy, Microcomputer Application and Desktop Publishing. This department is designed to introduce students with basic knowledge and skills needed in the world of technology. The students will be initiated to basic instruction with the use of Microsoft Office applications such as: Word, Excel, Access, Power point, Publisher and Adobe Photoshop. The Computer Science Department will help students be familiarized on the components of the computer and introduce how applications work. With this department they will be able to input data on the computer for school work and for employment purpose.

### **The relationship of department to the college Mission Statement**

#### **PCC MISSION STATEMENT:**

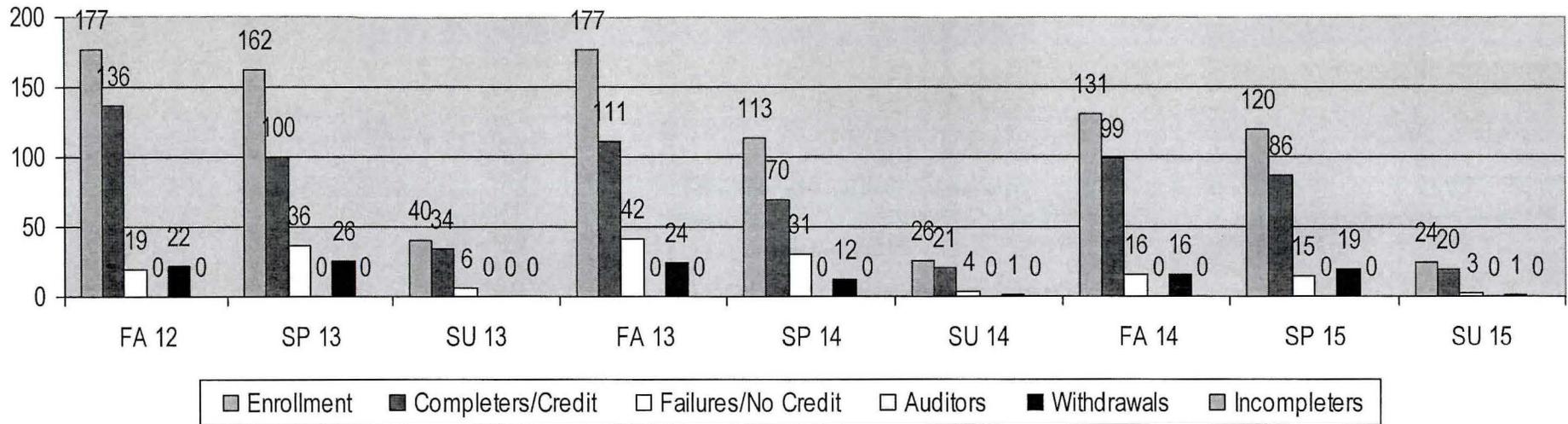
Palau Community College is an accessible public educational institution helping to meet the technical, academic, cultural, social, and economic needs of students and communities by promoting learning opportunities and developing personal excellence.

The Computer Science Department bonds with the PCC Mission Statement by helping meet the technical, academic, cultural, social, and economic needs of students and communities by promoting learning opportunities and developing personal excellence. To meet the technical needs, students are able to learn hands-on with the computer on how to move to and from within the computer and its applications. Students will be able to learn not only from the book but with practical exercises that will let them understand the purpose of every icons of the computer to meet their academic needs. While on the other hand, students will be able to input ideas, news, enhance photograph into the computer for their cultural, social, and economic issues. This Cs Department helps by promoting learning opportunities to students who needs knowledge in computers which is needed in most Profession nowadays.

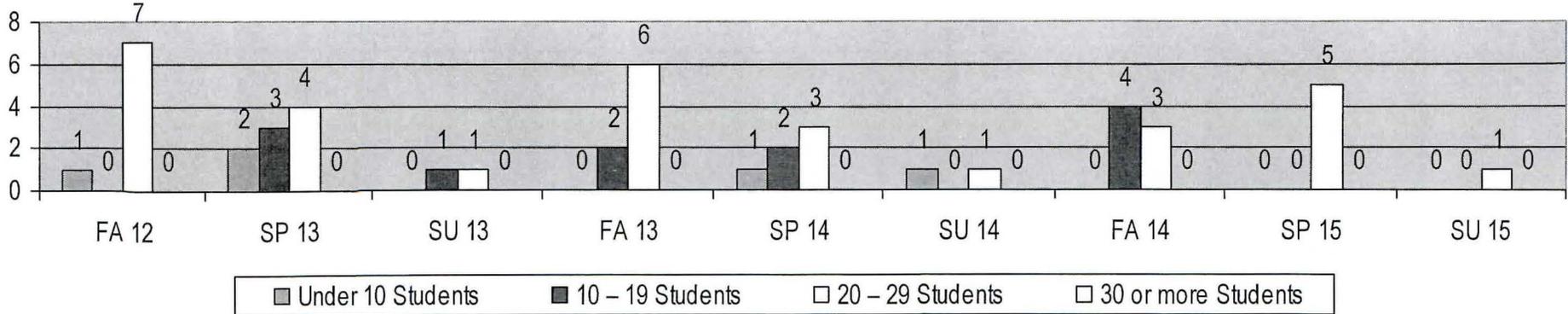
## Appendix A: Department Review Assessment Data

### 1.0 Department Data

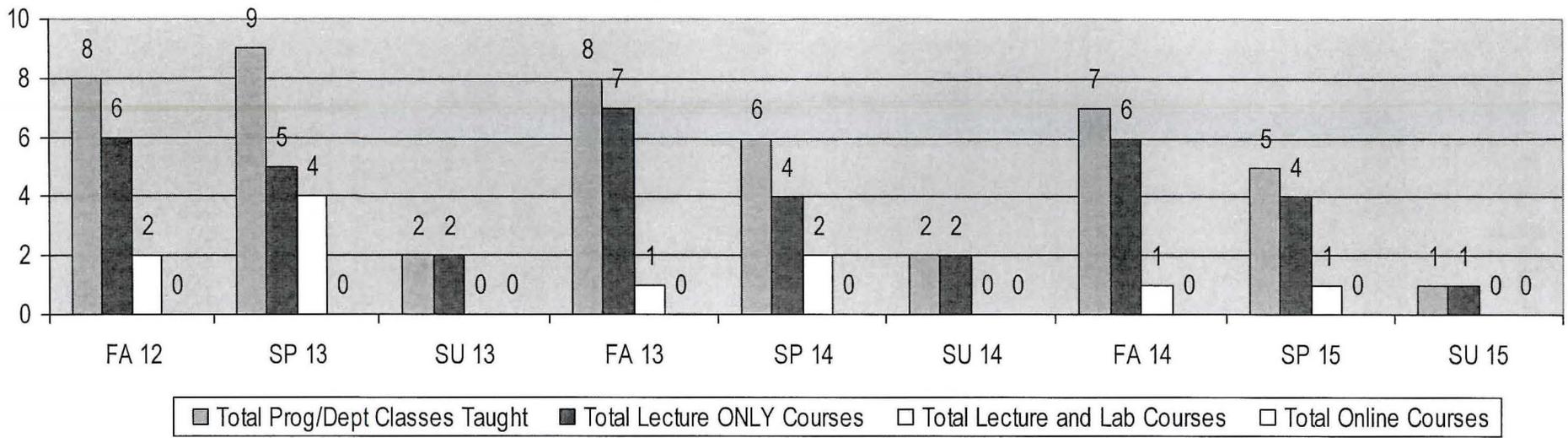
**Figure 1. Number of Students enrolled, completers, failures, auditors, withdrawals, challenge testers and incompleters**



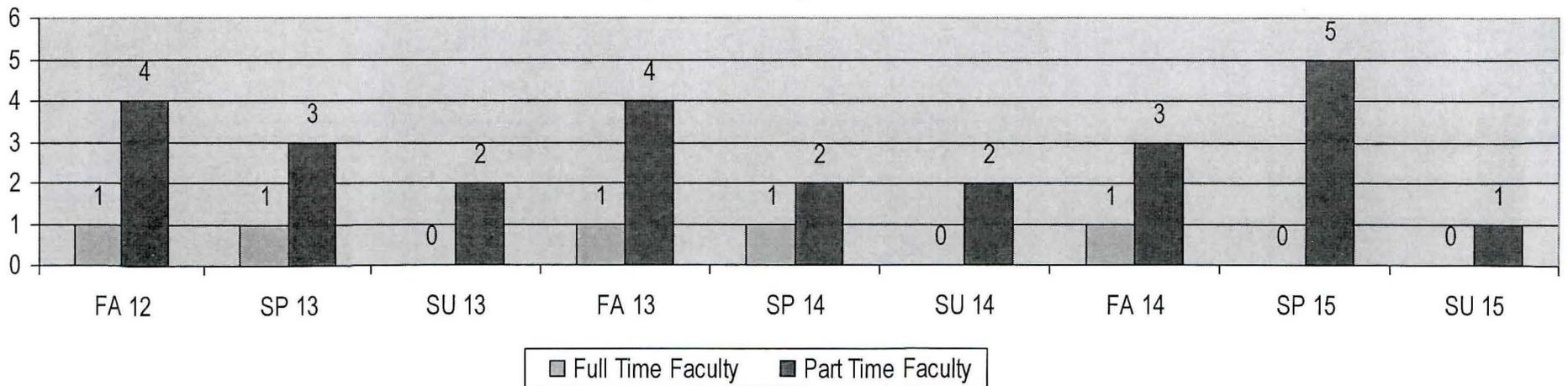
**Figure 2. Number Size of Class and Sections Conducted**



**Figure 3. Course Offering**



**Figure 4. Faculty Head Count**



**Table 1. Faculty to Class Size Ratio (dept. headcount).**

Ratio	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Fall 2014	Spring 2015	Summer 2015
Full Time Faculty (F : S)	1:52	1:58		1:76	1:2		1:39		
Part Time Faculty (F : S)	1:31.25	1:34.67	1:20	1:25.25	1:55.5	1:13	1:30.67	1:30	1:24

## 2.0 Student Learning and Curriculum

How many department courses are there? (refer to catalog)	%of courses with Identified CLOs	% of course outlines updated	% of courses whose Textbooks are updated (outline reflects change)	% of CLOs aligned with GE/ILOs
CS 100 – Computer Literacy	100%	100 %	100 %	100%
CS 212 – Microcomputer Applications	100%	In progress	Text book needs to be updated	100%
CS 213 – Desktop Publishing	100%	In progress	80 % Needs to be approved by CPC	100%

## 3.0 Course Assessment Data

### Year 1: School Year 2012-2013

Semester Assessed	Course Assessed	CLO – GE/ILO Alignment	Results of Assessments
Fall 2012	CS 100	CLO 1, 2, 3, 5 – PLO 1 CLO 1, 2, 3, 5, 7 – PLO 2 CLO 2, 4, 6 – PLO 3 CLO 2, 3, 5 – PLO 6	77% of the students pass the class with at least 70% and above.
Spring 2013	CS 100	CLO 1, 2, 3, 5 – PLO 1 CLO 1, 2, 3, 5, 7 – PLO 2 CLO 2, 4, 6 – PLO 3 CLO 2, 3, 5 – PLO 6	40% of the students pass the class with at least 70% and above
Spring 2013	CS 212		95.5% of the students pass the class with at least 70% and above 65% of the students pass the class with at least 70% and above.

- **Summary of Course Assessment Data**

This Course assessment has led the department to understand the learning behavior of students. One of the primary causes of student failure has been attendance and learning behavior. These assessment shows that communication skills needs further development and improvement.

This Cycle, the department decided to start assessing CS 100 only on Fall semester to see the progress of the course, while the other course would be assessed when it is offered.

Semester Assessed	Course Assessed	CLO – GE/ILO Alignment	Results of Assessments
Fall 2013	CS 100	CLO 1, 2, 3, 5 – PLO 1 CLO 1, 2, 3, 5, 7 – PLO 2 CLO 2, 4, 6 – PLO 3 CLO 2, 3, 5 – PLO 6	CLO 1: 43% of the students assessed performed at the proficiency level CLO 2: 43% of the students assessed performed at the proficiency level CLO 3: 43% of the students assessed performed at the proficiency level. CLO 4: 43% of the students assessed performed at the proficiency level CLO 5: 43% of the students assessed performed at the proficiency level CLO 6:
Fall 2013	CS 213	CLO 1, 2, 3, 4, - PLO 1 CLO 2, 3, 4 – PLO 2 CLO 1, 2, 3, 4 – PLO 6	CLO 1: 100% of the students assessed performed at the proficiency level CLO 2: 100% of the students assessed performed at the proficiency level CLO 3: 25% of the students assessed perform at the proficiency level – Most students did their projects and presentations. Some students did not submit all the parts of the project. CLO 4: 100% of the students assessed performed at the proficiency level
Spring 2014	CS 212	CLO 1, 2, 3, 4, 5 – PLO 1 CLO 1, 2, 3, 4, 5 – PLO 2 CLO 1, 3, 5 – PLO 3	CLO 1 – 5: 91% of student assessed performed at the proficiency level

- **Summary of Course Assessment Data**

This Course assessment has led the department to understand the learning behavior of students. One of the underlying causes of student failure has been attendance and learning behavior. These assessment shows that communication skills needs further development and improvement.

These assessment shows that CLO 1 to 5 for Computer Literacy (CS 100) are discussed in class unfortunately due to extra exercises that was given to student to understand the concept on each program CLO 6 was not able to be discussed due to time frame. Therefore, we encourage instructors to lay out the class exercises and offer tutorials (refer to LRC) or one on one tutorials. This lead the department head to compile information and create a workbook so that all lessons are discussed.

On the other hand Microcomputer Application (CS 212) and Desktop Publishing (CS 213) has been acceptable. Yet, Desktop Publishing's CLO 3 needed encouragement for students to submit their project on time.

Semester Assessed	Course Assessed	CLO – GE/ILO Alignment	Results of Assessments
Fall 2014	CS 100	CLO 1, 2, 3, 5 – PLO 1 CLO 1, 2, 3, 5, 7 – PLO 2 CLO 2, 4, 6 – PLO 3 CLO 2, 3, 5 – PLO 6	CLO 1: 82% of students performed at the proficiency level. CLO 2: 65% of students assessed performed at the proficiency level CLO 3: 65% of students assessed performed at the proficiency level. CLO 4: 54% of students assessed performed at the proficiency level. CLO 5: 80% of students performed at the proficiency level. CLO 6: 70% of student assessed reached the proficiency level  Need to improve the attendance of student. Provide more activities for students to interact with the lessons and that they would understand by doing the actual procedure for themselves. Improve lecture make sure students understand step by step before moving on the next lesson.
Fall 2014	CS 213	CLO 1, 2, 3, 4, - PLO 1 CLO 2, 3, 4 – PLO 2 CLO 1, 2, 3, 4 – PLO 6	CLO 1- 4: 70% of students assessed performed at the proficiency level.
Spring 2015	CS 212	CLO 1, 2, 3, 4, 5 – PLO 1 CLO 1, 2, 3, 4, 5 – PLO 2 CLO 1, 3, 5 – PLO 3	CLO 1: 89% of the students assessed performed at the proficiency level CLO 2: 94% of the students assessed performed at the proficiency level CLO 3: 100 % of the students assessed performed at the proficiency level CLO 4: 100 % of the students assessed performed at the proficiency level CLO 5: 100 % of the students assessed performed at the proficiency level.

- **Summary of Course Assessment Data**

This Course assessment has led the department to understand the learning behavior of students. One of the underlying causes of student failure has been attendance and learning behavior. These assessment shows that communication skills needs further development and improvement.

These assessment shows that CLO 1 to 6 for Computer Literacy (CS 100) had been discussed in class, this was our first semester to use the workbook. Yet student's responsibility is needed to be continuously encouraged all through the semesters. Lectures are needed to be successful for students to comprehend.

Meanwhile, Desktop Publishing (CS 213) has been satisfactory. Improvement over the previous semester had a great impact on student's success.

#### 4.0 Program Learning Outcomes (PLOs) Assessment

List PLOs	Proficiency Level	Results of Assessments
<b>PLO 1</b> Critical Thinking and Problem Solving	CS 100:CLO 1, 2, 3, 5 –59.7% CS 212:CLO 1-5 – 67% CS 213:CLO 1-4 – 74.7%	67.13% of the students performed at proficiency level for PLO#1.
<b>PLO 2</b> Communication	CS 100:CLO 1, 2, 3, 5, 7 –59.7% CS 212:CLO 1-5 – 67% CS 213:CLO 2-4 – 74.7%	67.13% of the students performed at proficiency level for PLO#2.
<b>PLO 3</b> Quantitative and Technological Competence	CS 100:CLO 2, 4, 6 – 59.7% CS 212:CLO 1, 3, 4, 5 – 67%	63.35% of the students performed at proficiency level for PLO# 3.
<b>PLO 4</b> Diversity		
<b>PLO 5</b> Civic Responsibility		
<b>PLO 6</b> Aesthetics	CS 100:CLO 2, 3, 5 – 59.7% CS 213:CLO 1 – 4 – 74.7%	67.2% of the students performed at proficiency level for PLO#6.

#### 5.0 Evaluation of Previous Program Review Action Plans

Action Plan Activity/Objectives	Status Complete/Ongoing/Incomplete	Remarks
Review and update CS Course Outline and CLO	Complete	Needs to be revised every cycle for new update
Hire additional full-time Faculty that will help improve CS courses and submit required materials.	Incomplete	Has not been addressed.
Upgrade Computer Labs Hardware/Program	Incomplete	Appropriate Program should available for all Computer Lab.

## 6.0 Action Plan

Based on this department review results, describe the department 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, GE/ILO)	Needed Resources (if any)	Timeline
Review and update CS Course Outline and CLO	Review and update will ensure that CLO and CO are up to date, effective and aligned with the colleges standards and expectations	Reference materials, and/or Instructors resources	Fall 2015
Hire additional full-time Faculty that will help improve CS courses and submit required materials.	Having a full time instructor for CS department will help improve the quality of the department. Thus students can ask for help to improve their technical skills	Funding to hire another qualified fulltime CS instructor	Fall 2016
Update Program	To be able to recognize the interface of the program that is being showed/ and discussed. Students will be able to follow the step by step process.	Program Installer's	Fall 2017

## 7.0 Resource Requests

Type of Resource	Description	Estimated Amount Requested	Justification
<b>Personnel</b>	Hire an additional qualified fulltime CS faculty with at least a bachelor's degree in CS or a related field	At least \$13,500 per year	There is a need to hire Full time faculty to assist in teaching CS courses. CS courses are offered every semester in the college and we hire only part time instructors just to fill in the position. We need a full time instructor that will help improve CS department and would be able to submit all required files for the improvement of the college and students. Students must receive the quality of learning through instructors who have a good background in CS Courses.
<b>Facilities</b>	None	None	None
<b>Equipment</b>	Server, Projector	\$2,000	To equip 3 computer lab with adequate equipment for student learning. To provide an interactive computer lab for students to learn efficiently.
<b>Supplies</b>	Office Supplies, Deskjet Toner	\$300/semester	To support in teaching
<b>Software</b>	None	None	None
<b>Training</b>	Development courses and/or training courses		To maintain the department integrity and enhance student learning outcome. To improve new teaching skills for students to learn easily.
<b>Other</b>			
<b>Total</b>			

## Appendix A: Provide Department Learning Outcomes

### General Education Program Learning Outcomes (PLO)

Adopted from the Institutional Learning Outcomes (ILO) for Palau Community College, 15 year Institutional Master Plan 2009 -2024, pg 5.

PLO's	PLO Description
PLO 1	Critical Thinking and Problem Solving: Students who complete the General Education Program can analyze and solve problems by using informed judgment based on evidence, sound reasoning and/or creativity to differentiate facts from opinions and to specify solutions and their consequences.
PLO 2	Communication: Students who complete the General Education Program can effectively communicate, both orally and in writing, thoughts in a clear, well organized manner to persuade, inform and/or convey ideas in academic, work, family and community setting
PLO 3	Quantitative and Technological Competence: Students who complete the General Education Program can use mathematical skills appropriate to or technological society by analyzing and solving problems that are quantitative in nature and by utilizing technology for informal, academic, personal and professional needs.
PLO 4	Diversity: Students who complete the General Education Program can distinguish and defend differences in cultures and behaviors between oneself and others by demonstrating respect, honesty, fairness, and ethical principles in both personal and professional life.
PLO 5	Civic Responsibility: Students who complete the General Education Program can apply the principles of civility and morality to situations in the contexts of a healthy family, work, community, environment and the world
PLO 6	Aesthetics: Students who complete the General Education Program can apply numerous means of inquiry to experience and appreciate the values of arts and nature.

Appendix B: Provide department mapping that shows alignment of CLOs – GE/ ILOs

## **COMPUTER SCIENCE DEPARTMENT MAP**

Course	<b>PLO 1</b> Critical Thinking and Problem Solving : Students who complete the General Education Program can analyze and solve problems by using informed judgment based on evidence, sound reasoning and/or creativity to differentiate facts from opinions and to specify solutions and their consequences.	<b>PLO 2</b> Communication: Students who complete the General Education Program can effectively communicate, both orally and in writing, thoughts in a clear, well organized manner to persuade, inform and/or convey ideas in academic, work, family and community setting	<b>PLO 3</b> Quantitative and Technological Competence: Students who complete the General Education Program can use mathematical skills appropriate to out technological society by analyzing and solving problems that are quantitative in nature and by utilizing technology for informal, academic, personal and professional needs	<b>PLO 4</b> Diversity: Students who complete the General Education Program can distinguish and defend differences in cultures and behaviors between oneself and others by demonstrating respect, honesty, fairness, and ethical principles in both personal and professional life.	<b>PLO 5</b> Civic Responsibility: Students who complete the General Education Program can apply the principles of civility and morality to situations in the contexts of a healthy family, work, community, environment and the world	<b>PLO 6</b> Aesthetics: Students who complete the General Education Program can apply numerous means of inquiry to experience and appreciate the values of arts and nature.	<b>Institutional Learning Outcomes (ILOs)</b>
CS 100	<i>CLO 1, 2, 3,5</i>	<i>CLO 1,2, 3, 5,7</i>	<i>CLO 2, 4, 6</i>			<i>CLO 2,3, 5</i>	<i>ILO 1, 2, 3, 5</i>
CS 212	<i>CLO 1, 2, 3, 4, 5</i>	<i>CLO 1,2,3,4,5</i>	<i>CLO 1, 3,4,5</i>				<i>ILO 1, 3, 5</i>
CS 213	<i>Clo 1,2,3,4</i>	<i>CLO 2, 3, 4</i>				<i>CLO 1,2,3,4</i>	<i>ILO 1,2,4,5,6</i>

**Appendix C: Provide signature assignment form**

SIGNATURE ASSIGNMENT COMPUTER SCIENCE DEPARTMENT			
Course Number	Course Title	Semester Credits	Signature Assignment
CS 100	Computer Literacy	3	CLO 1 : Final Exam - Written CLO 2: Final Exam – Word (Practical) CLO 3: Final Exam – Word (Practical) CLO 4: Final Exam – Excel (Practical) CLO 5: PowerPoint Classwork 2 CLO 6: Access Classwork 2
CS 212	Microcomputer Application	3	CLO 1 : Midterm Exam CLO 2: Midterm Exam CLO 3: Final Exam CLO 4: Final Exam CLO 5: Final Exam
CS 213	Desktop Publishing	3	CLO 1: Project CLO 2: Project CLO 3: Project CLO 4: Project